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# Report of the Comptroller and Auditor General of India on Public Sector Undertakings for the year ended March 2015

भारतीय लेखा एवं लेखा परीक्षा विभाग + INDIAN AUDIT AND ACCOUNTS DEPARTMENT

GOVERNMENT OF TAMILNADU
TRUTH ALONE TRIUMPHS

**Government of Tamil Nadu**

**Report No. 4 of 2016**

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

## for the year ended March 2015

## Government of Tamil Nadu
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# PREFACE

This report deals with the results of audit of Government Companies and Statutory Corporation for the year ended March 2015.

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 2014-15 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 2014-15 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 2015, the State of Tamil Nadu had 65 working PSUs (64 companies and one Statutory Corporation) and seven non-working PSUs (all companies), which employed 2.88 lakh employees. The State PSUs registered a turnover of ₹ 87,083.36 crore as per their latest finalised accounts. This turnover was equal to 8.92 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 ₹ 65,725.89 crore as per their latest finalised accounts.***

### *Investment in PSUs*

***As on 31 March 2015, the investment (capital and long-term loans) in 72 PSUs was ₹ 1,21,743.21 crore. Power sector accounted for 92.65 per cent of total investment and Service sector 2.91 per cent in 2014-15. The Government contributed ₹ 23,368.13 crore towards equity, loans and grants/subsidies during 2014-15.***

### *Performance of PSUs*

***As per latest finalised accounts, out of 65 working PSUs, 41 PSUs earned profit of ₹ 1,979.79 crore and 20 PSUs incurred loss of ₹ 16,833.24 crore. The major contributors to profit were Tamil Nadu Transmission Corporation Limited (₹ 1,308.03 crore), Tamil Nadu Newsprint and Papers Limited (₹ 166.73 crore), Tamil Nadu Power Finance and Infrastructure Development Corporation Limited (₹ 105.78 crore), State Industries Promotion Corporation of Tamil Nadu Limited (₹ 87.21 crore), Tamil Nadu Industrial Development Corporation Limited (₹ 56.99 crore), Tamil Nadu Industrial Investment Corporation Limited (₹ 25.73 crore) and Arasu Cable TV Corporation Limited (₹ 18.46 crore).***

***In respect of Tamil Nadu Civil Supplies Corporation Limited, the loss is compensated by the State Government. Three companies neither earned profit nor incurred loss. Heavy losses were incurred by Tamil Nadu Generation and Distribution Corporation Limited (₹ 13,985,03 crore) and all the eight State Transport Corporations (₹ 2,654 crore).***

### *Arrears in accounts*

***25 working PSUs had arrears of 29 accounts as on 30 September 2015, of which four accounts pertained to earlier years and the remaining were 2014-15 accounts.***

### *Winding up of non-working PSUs*

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

### *Quality of accounts*

***The quality of accounts of PSUs needs improvement. During the year, out of 57 accounts finalised, the Statutory Auditors of Government companies had given unqualified certificates for 29 accounts, qualified certificates for 27 accounts and adverse opinion in respect of one account. There were 52 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 departments to submit replies to the paragraphs/reviews included in the Audit Report of C&AG 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 five Performance Audit Reports and 33 paragraphs were not received from eight departments as of December 2015. Further, the Action Taken Notes to 193 paragraphs, pertaining to 35 Reports of Committee on Public Undertakings (COPU) presented to the Legislature between April 2002 and March 2015 were not received as of December 2015.***

## 2 Performance Audit relating to Government companies

## 2.1 Performance Audit on Tamil Nadu Sugar Corporation Limited and Perambalur Sugar Mills Limited

***As of March 2015, there were 43 sugar mills in Tamil Nadu. Of these, two sugar mills were owned by two State Public Sector Undertakings (PSUs) viz., Tamil Nadu Sugar Corporation Limited (TASCO) and its subsidiary Perambalur Sugar Mills Limited (PSM). These two sugar mills contributed about four per cent of State sugar production during 2014-15. These two PSUs are financially sick since 1998 and 1999. Audit took up the Performance Audit of these PSUs covering the period from April 2010 to March 2015.***

### *Planning for availability of sugarcane*

***Both the companies did not achieve the target for area registration for sugarcane cultivation during 2010-15 (except during 2010-12 in TASCO).The shortfall in area registration, which ranged between 6 and 29 per cent in TASCO and 4 and 35 per cent in PSM, led to reduction in availability of sugarcane to the extent of 2.55 lakh MT in TASCO and 5.08 lakh MT in PSM. Failure of the companies to promote drip irrigation impacted the availability of sugarcane. Due to not ensuring staggered plantation, there was bunching of sugarcane plantation and receipt of over-aged sugarcane upto 96 per cent during the five years of 2010-15.***

### *Sugarcane procurement*

***During 2010-15, TASCO, which fixed the target for procurement of sugarcane more than 93 per cent of its installed capacity, had procured sugarcane ranging between 68 and 102 per cent of the target. However, though PSM had fixed its target between 46 and 83 per cent of its installed capacity, this lower target could be achieved only in 2010-11 and 2012-13 and in the balance three years, the achievement ranged between 66 and 82 per cent. Both the companies diverted sugarcane to other mills on unjustified grounds, resulting in loss of contribution of ₹ 9.92 crore. The procurement of***

***sugarcane by both the companies with extraneous material, much in excess of the norm of one per cent, resulted in wasteful expenditure of ₹24.94 crore.***

### *Production performance*

***Due to the inability of both the companies to maintain the corporate norm for recovery of sugar from the sugarcane crushed, the companies lost 36,472 MTs of sugar valued at ₹ 110.53 crore. Against the permitted loss of production hours of 8 per cent, the time loss suffered by TASCO ranged from 15.05 to 33.01 per cent and PSM from 18.57 to 39.71 per cent. The excess consumption of utilities viz., steam, bagasse and power beyond the permissible levels, led to avoidable extra expenditure of ₹17.59 crore.***

***The programme for modernisation and establishment of co-generation plant at a cost of ₹254.58 crore (taken up as part of rehabilitation of the companies) in February 2008, with scheduled completion by September 2011 remained incomplete (December 2015) due to inadequate deployment of labour force by the contractor. This led to continued inefficiencies in operation of the sugar mills.***

### *Monitoring and internal control*

***There were frequent changes in the post of Chief Executives of the mills, with the average tenure during 2010-15 being only six months, resulting in lack of continuity in leadership. The Internal Audit in TASCO was confined only to financial matters. Absence of age-wise data of sugarcane procured beyond 12 months and sugarcane crushed beyond 24 hours are some of the deficiencies in internal control noticed in Audit.***

## 2.2 Performance Audit on Procurement of Wind Energy by Tamil Nadu Generation and Distribution Corporation Limited

***The State of Tamil Nadu, which had the wind power potential of 14,152 MW ranked third in the country, next to Gujarat and Andhra Pradesh. In respect of the installed capacity, the State ranked first in the country as of March 2015, with an installed capacity of 7,439 MW. Performance Audit was taken up to assess the system in place for management of wind energy procurement, including wheeling and its transmission, covering the period from 2010-11 to 2014-15.***

### *Planning*

***Despite huge potential for wind energy, the State Government had not so far (December 2015) issued a comprehensive wind energy policy. This led to the State utilities viz, Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) and Tamil Nadu Transmission Corporation Limited (TANTRANSCO) lacking directions from the Government for planning and procurement of wind energy. Though Central Electricity Regulatory Commission mandated (April 2010) that the existing wind energy projects should schedule their energy generation by entering into agreement with transmission utilities, the relevant clauses were not included in any of the agreements with the 11,543 existing Wind Energy Generators (WEGs).***

***The connected load of 80 sub-stations out of the existing 115 sub-stations, had exceeded their available transmission capacity, which indicated absence of proper planning for optimum utilisation of the available capacity.***

### *Procurement of wind energy*

***TANGEDCO is the nodal agency for according approval for establishment of wind mills within the State. Though temporary connection to the wind mills was to be given only for testing purpose, wind mills with connected load of 1,223 MW in two circles were found to be under temporary connection for periods ranging from one month to five years. TANGEDCO had not collected Infrastructure Development Charges of ₹87.59 crore payable for the period from August 2005 to November 2010. Invoices for operation and maintenance charges, amounting to ₹44.18 crore, had also not been raised and ₹3.98 crore was collected after the omission was pointed out by Audit.***

***Despite continuous increase in wind energy generated during 2010-11 to 2014-15, purchase by TANGEDCO declined from 60.30 to 39.08 per cent, due to continued backlog in making payments and constraints in transmission facilities. The resultant shifting of WEGs from sale of energy to wheeling arrangements, caused a loss of ₹60.59 crore to TANGEDCO in respect of 173 test checked WEGs. Avoidable backing down (stoppage of generation based on the request of TANGEDCO) of wind energy, led to extra expenditure of ₹159.20 crore.***

### *Execution of transmission schemes*

***Though TANTRANSCO planned execution of five transmission works at a cost of ₹1,440.91 crore by 2013-14, these works were not completed as of December 2015, resulting in non-realisation of intended benefit of maximum evacuation of wind energy.***

### *Wheeling of wind energy*

***TANGEDCO did not collect transmission charges amounting to ₹124.19 crore from open access consumers and collected only ₹1.54 crore, after the omission was pointed out by Audit. Verification of system for payments for the banked wind energy revealed overpayment of ₹31.86 crore, carrying forward of banked energy valuing ₹7.29 crore to subsequent months in violation of the orders and short billing of ₹3.78 crore as well as non-levy of penalty of ₹14.31 crore, due to irregular adjustment of banked wind energy during power holiday periods.***

***In 11 circles test checked, the benefits of group captive mechanism amounting to ₹122.20 crore was allowed to ineligible consumers.***

### *Monitoring and internal control*

***The monitoring and internal control mechanism was deficient, as TANGEDCO did not (i) carry out regular inspection of WEGs, (ii) levy penalty for continued low performance of WEGs and (iii) install the mandatory availability based tariff meters in 6,031 out of 11,543 wind mills.***

## Performance Audit relating to Statutory Corporation

## 3 Performance Audit on Construction, operation and maintenance of storage facilities by Tamil Nadu Warehousing Corporation

***Tamil Nadu Warehousing Corporation (TNWC) was established in May 1958 under the Agricultural Produce (Development and Warehousing) Corporations Act, 1956, which was subsequently replaced by the Warehousing Corporations Act, 1962. The main objectives of TNWC are to provide scientific storage facilities for agricultural and notified commodities and to help depositors in obtaining credit against stored commodities. A Performance Audit of warehousing activities of TNWC was conducted***

***between April and July 2015 and important audit findings noticed during audit are as under:***

***TNWC did not undertake any assessment of the future storage requirements of the State and have a systematic plan for construction of godowns.***

***There was no co-ordination among various Government and co-operative agencies involved in warehousing activity in the State.***

***There were delays in construction of godowns resulting in loss of guaranteed business and TNWC had not invoked penal provisions in agreements for slow progress of work.***

***TNWC added 17 godowns with storage capacity of 71,200 MT during the period 2010-15. However, utilisation of its own storage capacity by depositors was below the norm of 90 per cent fixed by Government of Tamil Nadu. It came down from 86 per cent in 2012-13 to 74 per cent in 2014-15.***

***Utilisation of warehousing facility by farmers was less than one per cent indicating the need for creation of awareness among farmers.***

***There were substantial arrears of storage charges (₹15.86 crore).***

***Only 36 out of 56 warehouses were registered under the Warehousing (Development and Regulation) Act, 2007 for part capacity and insurance coverage was provided only for the quantity of stock held in those partly registered warehouses.***

***There were deficiencies in provision of scientific storage, safety measures and adequate infrastructure in warehouses.***

***Adequate funds were not provided for maintenance of warehouse buildings. Warehouses were operated with 47 to 63 per cent vacancies in various categories of staff.***

## 4 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:

Two PSUs extended undue benefit of ₹ 10.94 crore to the contractor/lessee due to extension of interest free mobilisation advance in violation of the Tender Act and not collecting the lease rent for entire area let out on lease.

***(Paragraphs 4.2 and 4.8)***

Two PSUs incurred wasteful expenditure of ₹ 40.68 crore, due to allowing a new technology for towing of the submarine by a contractor without adequate precaution and not documenting authorisation for operation of gas plant from the supplier as per the terms of contract.

***(Paragraphs 4.5 and 4.9)***

Four PSUs suffered avoidable loss and wasteful expenditure of ₹ 15.63 crore due to belated submission of invoices, thereby not availing the eligible discount for prompt payment, not paying the service tax on due dates, unwarranted availing of foreign currency loan and avoidable delay in procurement of an essential equipment for the thermal plant.

***(Paragraphs 4.4, 4.6, 4.7 and 4.10)***

Two PSUs suffered loss of revenue of ₹ 20.59 crore as one PSU failed to collect interest for delayed payment of upfront lease charges and development charges and another PSU, unnecessarily delayed providing High Tension service connection to a consumer.

***(Paragraphs 4.3 and 4.11)***

Some of the important Audit observations are given below:

The system of settlement of accident compensation by State Transport Undertakings (STUs) revealed that there was inordinate delay due to (i) inadequate contribution to the insurance Fund, (ii) non-provision of own funds by the STUs for accident claims as per the directions of the Government and (iii) not honouring the Court judgments and Execution Petitions for settling the accident claims.

Thus, the accepted accident claims amounting to ₹ 207.72 crore remained unsettled for years together. Impounding of buses due to not honouring the Courts' judgement had adversely affected the image of the STUs. This not only led to loss of revenue to the STUs, but also put the victims and their families to hardship.

***(Paragraph 4.1)***

**Pallavan Transport Consultancy Services Limited** selected an ineligible contractor for operating the on-line e-ticketing system and extended undue benefit of ₹ 4.06 crore by providing interest free mobilisation advance.

***(Paragraph 4.2)***

Failure of **Electronics Corporation of Tamil Nadu Limited** to adopt the procedures for collection of upfront lease rent and land development charges as per the directives of the State Government led to non-collection of development charges of ₹ 10.82 crore and loss of interest of ₹ 7.50 crore.

***(Paragraph 4.3)***

**Tamil Nadu Tourism Development Corporation Limited** allowed its contractor to adopt a new technology for towing of submarine without adequate precaution, which led to infructuous expenditure of ₹ 4.41 crore, apart from non-achievement of objective of establishing a Maritime Heritage Museum.

***(Paragraph 4.5)***

**Tamil Nadu Generation and Distribution Corporation Limited**

The Company installed a Gas Booster Compressor in gas based power station without verifying the operational risk and failed to document the authorisation for operation by the supplier as per the terms of the contract, which led to an avoidable expenditure of ₹ 36.27 crore.

***(Paragraph 4.9)***

The Company could not reduce the operational expenditure to the extent of ₹ 7.35 crore, due to delay of over five years in installation of by-pass system in a thermal unit.

***(Paragraph 4.10)***

# CHAPTER-I

## 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 2015, in Tamil Nadu, there were 72 PSUs. Of these, two companies[1] were listed on the stock exchange. During the year 2014-15, one PSU[2] was incorporated, whereas six PSUs[3] were closed down. The details of the State PSUs in Tamil Nadu as on 31 March 2015 are given below:

**Table:1.1 Total number of PSUs as on 31 March 2015**

| Type of PSUs | Working PSUs | Non-working PSUs[4] | Total |
|---|---|---|---|
| Government companies[5] | 64 | 7 | 71 |
| Statutory Corporation | 1 | --- | 1 |
| **Total** | **65** | **7** | **72** |

**(Source: Details collected from the Government)**

The working PSUs registered a turnover of ₹ 87,083.36 crore, as *per* their latest finalised accounts as of September 2015. This turnover was equal to 8.92 *per cent* of State Gross Domestic Product (GDP) for 2014-15. The working PSUs incurred loss of ₹ 14,853.45 crore, as *per* their latest finalised accounts, as of September 2015. They had employed 2.88 lakh employees as at the end of March 2015.

As on 31 March 2015, there were seven non-working PSUs existing from 13 to 25 years and having investment of ₹ 152.88 crore.

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

2 Tamil Nadu Skill Development Corporation Limited.

3 Tamil Nadu Magneisum and Marine Chemicals Limited, Tamil Nadu Steels Limited, Tamil Nadu Graphites Limited, Tamil Nadu Leather Development Corporation Limited, Tamil Nadu Film Development Corporation Limited and Tamil Nadu Institute of Information Technology.

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 considers 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, Power 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. An audit of the financial statements of a Company in respect of the financial years that commenced on or before 31 March 2014 shall continue to be governed by the provisions of the Companies Act, 1956.

***Statutory Audit***

**1.3** The financial statements of the Government companies (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 shall submit a copy of the Audit Report to the C&AG, 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 Corporation 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 Reports, 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 2015, the investment (capital and long-term loans) in 72 PSUs was ₹ 1,21,743.21 crore as per details given below:

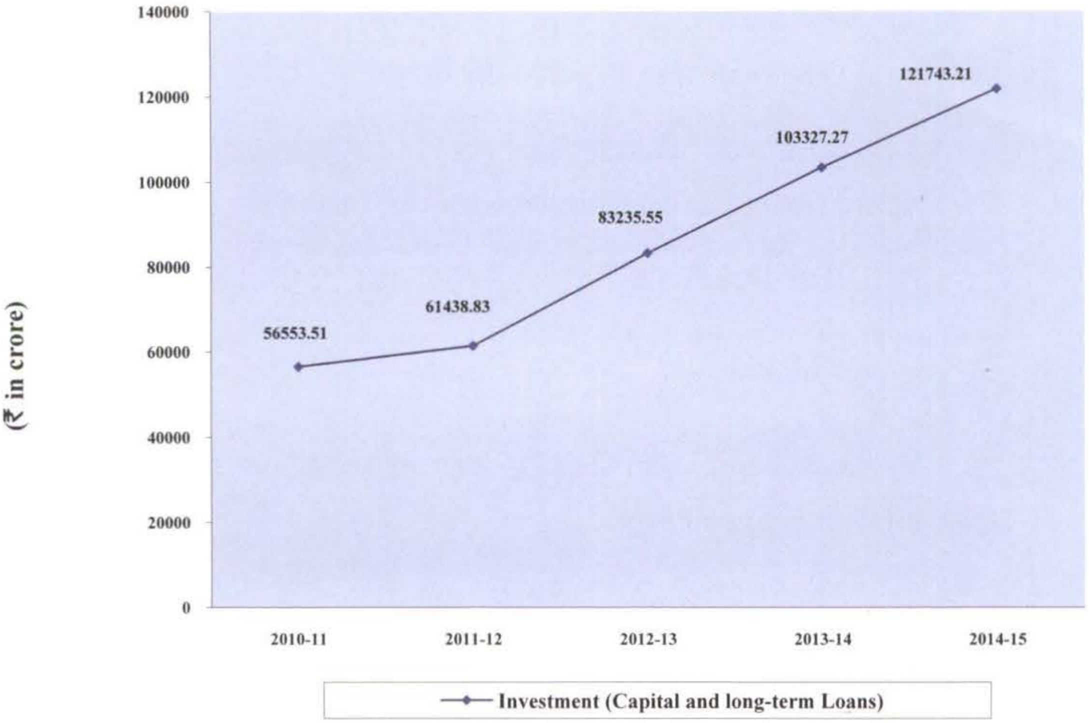
**Table 1.2: Total investment in PSUs**

**(₹ in crore)**

| Type of PSUs | Government companies | | | Statutory Corporation | | | Grand total |
|---|---|---|---|---|---|---|---|
| | Capital | Long-term loans | Total | Capital | Long-term loans | Total | |
| Working PSUs | 34,960.63 | 86,622.09 | 1,21,582.72 | 7.61 | --- | 7.61 | 1,21,590.33 |
| Non-working PSUs | 47.93 | 104.95 | 152.88 | --- | --- | --- | 152.88 |
| **Total** | **35,008.56** | **86,727.04** | **1,21,735.60** | **7.61** | **---** | **7.61** | **1,21,743.21** |

As on 31 March 2015, of the total investment in State PSUs, 99.87 *per cent* was in working PSUs and the remaining 0.13 *per cent* in non-working PSUs. This total investment consisted of 28.76 *per cent* towards capital and 71.24 *per cent* in long-term loans. The investment has grown by 115.27 *per cent* from ₹ 56,553.51 crore in 2010-11 to ₹ 1,21,743.21 crore in 2014-15, 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 2015 is given below:

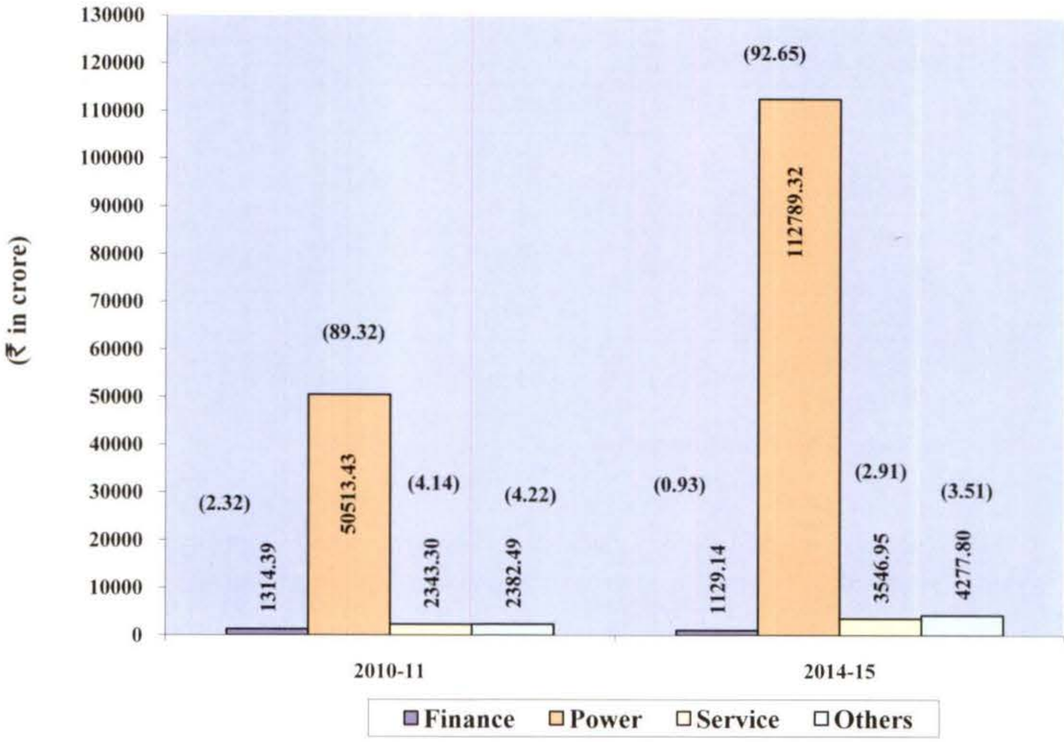
**Table 1.3: Sector-wise investment in PSUs**

(₹ in crore)

| Name of Sector | Government/Other companies | | Statutory Corporation | Total | Investment *(In per cent)* |
|---|---|---|---|---|---|
| | Working | Non-working | Working | | |
| Power | 1,12,789.32 | --- | --- | 1,12,789.32 | 92.65 |
| Manufacturing | 2,174.03 | 118.03 | --- | 2,292.06 | 1.88 |
| Finance | 1,129.14 | --- | --- | 1,129.14 | 0.93 |
| Service | 3,539.01 | 0.33 | 7.61 | 3,546.95 | 2.91 |
| Infrastructure | 1,902.50 | 6.00 | --- | 1,908.50 | 1.57 |
| Agriculture & Allied | 48.72 | 28.52 | --- | 77.24 | 0.06 |
| **TOTAL** | **1,21,582.72** | **152.88** | **7.61** | **1,21,743.21** | |

The investment in four significant sectors and percentage thereof at the end of 31 March 2011 and 31 March 2015 are indicated below in the bar chart. The thrust of PSUs investment was mainly in power sector, which increased from 89.32 to 92.65 *per cent* during 2010-11 to 2014-15.

**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 2014-15.

**Table 1.4: Details regarding budgetary support to PSUs**

**(₹ in crore)**

| Sl. No. | Particulars | 2012-13 | | 2013-14 | | 2014-15 | |
|---|---|---|---|---|---|---|---|
| | | No. of PSUs | Amount | No. of PSUs | Amount | No. of PSUs | Amount |
| 1 | Equity capital outgo from budget | 13 | 885.50 | 14 | 2,669.93 | 14 | 4,663.25 |
| 2 | Loans given from budget | 1 | 3,261.00 | 4 | 44.48 | 9 | 6,479.95 |
| 3 | Grants/subsidy from budget | 19 | 9,771.39 | 19 | 11,245.18 | 21 | 12,224.93 |
| **4** | **Total outgo (1+2+3)** | **24**[6] | **13,917.89** | **23**[6] | **13,959.59** | **27**[6] | **23,368.13** |

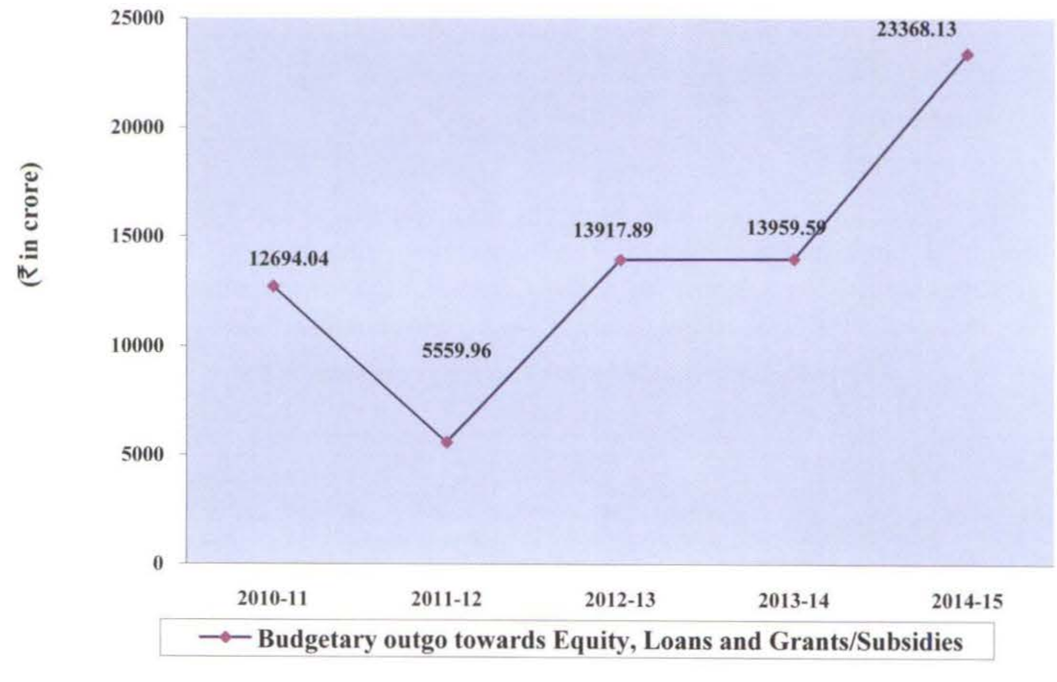
[6] These are the actual number of Companies/Corporation, which have received budgetary support in the form of equity, loan, subsidies and grants from the State Government during the respective years.

| Sl. No. | Particulars | 2012-13 | | 2013-14 | | 2014-15 | |
|---|---|---|---|---|---|---|---|
| | | No. of PSUs | Amount | No. of PSUs | Amount | No. of PSUs | Amount |
| 5 | Loans converted into equity | --- | --- | --- | --- | 1 | 40.00 |
| 6 | Loans written off | 1 | 0.98 | --- | --- | --- | --- |
| 7 | Interest/penal interest written off | 1 | 0.05 | --- | --- | --- | --- |
| **8** | **Total waiver (6+7)** | 1 | 1.03 | --- | --- | --- | --- |
| 9 | Guarantees issued | 6 | 28,671.09 | 9 | 13,160.11 | 7 | 6,548.33 |
| 10 | Guarantee commitment | 11 | 16,951.26 | 13 | 39,716.81 | 13 | 46,853.57 |

**(Source: Details furnished by the companies)**

The details regarding budgetary outgo towards equity, loans and grants/subsidies for past five years 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 2011-12 to 2014-15 mainly due to increase in equity, loans and subsidy by the State Government over the years to electricity companies, Tamil Nadu Civil Supplies Corporation Limited and State Transport Corporations.

PSUs are liable to pay guarantee commission to the State Government upto 0.5 *per cent* of the amount of guarantee utilised by them on raising cash credit from banks and loans from other sources including operating Letters of Credit. The guarantee commitment increased to ₹ 46,853.57 crore during 2014-15 from ₹ 39,716.81 crore in 2013-14. Further, eight PSUs paid guarantee fee to the tune of ₹ 2.26 crore during 2014-15. There were five PSUs, which did not pay guarantee commission during the year and the accumulated[7]/outstanding guarantee commission thereagainst was ₹ 211.75 crore as on 31 March 2015.

## 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 2015 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 | 19,022.97 | 19,113.56 | 90.59 |
| Guarantees | 53,129.24 | 46,853.57 | 6,275.67 |

**(Source: Finance Accounts for 2014-15 and details furnished by the companies)**

Audit observed that the differences occurred in nine PSUs and five PSUs, in respect of equity and guarantees, respectively. Reconciliation of difference was pending from March 2005 in case of one PSU[8]. The Principal Secretary to Government of Tamil Nadu, Finance Department was addressed (January 2016) and his attention was drawn 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 and audited and presented to the Legislature as per the provisions of the respective Act.

[7] Serial Number 8, 10, 13, 34 and 45 of Annexure-2.

[8] Tamil Nadu Road Infrastructure Development Corporation Limited.

The table below provides the details of progress made by working PSUs in finalisation of accounts as on 30 September 2015.

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

| Sl. No. | Particulars | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|---|---|---|---|---|---|---|
| 1. | Number of working PSUs | 67 | 64 | 64 | 64 | 65 |
| 2. | Number of accounts finalised during the year | 63 | 67 | 64 | 68 | 57 |
| 3. | Number of accounts in arrears | 39 | 25 | 25 | 21 | 29 |
| 4. | Number of working PSUs with arrears in accounts | 26 | 21 | 21 | 17 | 25 |
| 5. | Extent of arrears (years) | 1 to 9 | 1 to 3 | 1 to 3 | 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 2013-14 to 29 in 2014-15.

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 Principal Secretary, Finance Department every quarter. Arrears in accounts were noticed in 25 working PSUs upto 2014-15. Their net worth could not be assessed in Audit. The matter was also brought to the notice of the Chief Secretary, Government of Tamil Nadu in the Apex Committee meeting held in July 2015 by the AG.

**1.11** The State Government had invested ₹ 10,593.82 crore in nine PSUs {equity ₹ 4,330.15 crore (five PSUs) loans: ₹ 6,223.16 crore (one PSU) and grants: ₹ 40.51 crore (six 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 and 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 2015, there were arrears in finalisation of accounts by non-working PSUs. Out of seven non-working PSUs, one PSU *viz.*, Tamil Nadu Sugarcane Farms Corporation Limited was wound up in 2015-16. Tamil Nadu Goods Transport Corporation Limited has submitted winding up proposals and hence, its accounts are not considered due. Of the remaining five non-working PSUs, one[9] Company has submitted its accounts for the year 2014-15 and another *viz.*, Tamil Nadu Agro Industries

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

Corporation Limited had submitted its ten accounts for the years from 2003-04 to 2012-13. Four[10] PSUs are in arrears from one to thirteen years.

**Table: 1.7 Position relating to arrears of accounts in respect of non-working PSUs**

| Number of non-working companies | Period for which accounts were in arrears | Number of years for which accounts were in arrears |
|---|---|---|
| 4 | 2002-03 to 2014-15 | 1 - 13 |

## 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 2014-15 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 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 2014-15.

**Table:1.9 Details of working PSUs turnover *vis-a-vis* State GDP**

**(₹ in crore)**

| Particulars | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|---|---|---|---|---|---|
| Turnover[11] | 55,193.64 | 65,804.92 | 70,673.64 | 83,455.28 | 87,083.36 |
| State GDP | 5,47,267 | 6,39,025 | 7,44,474 | 8,54,238 | 9,76,703 |
| Percentage of turnover to State GDP | 10.09 | 10.30 | 9.49 | 9.77 | 8.92 |

**(Figures of State GDP for 2014-15 are advance estimates reset with base year as 2004-05).**

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

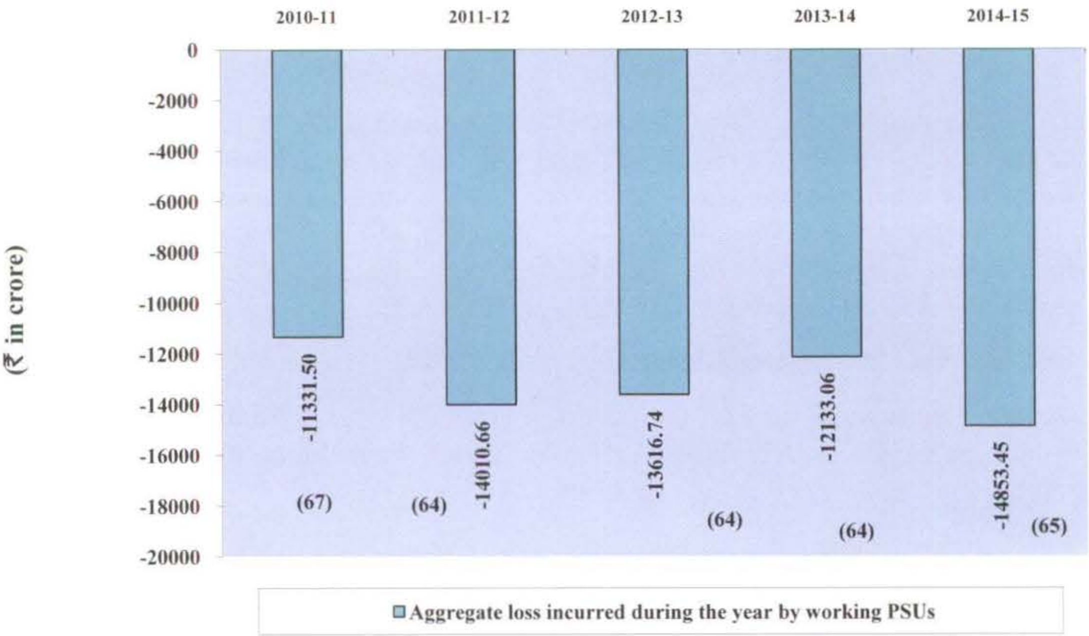
[10] (i) Tamil Nadu Agro Industries Development Corporation Limited, (ii) Tamil Nadu Poultry Development Corporation Limited, (iii) Tamil Nadu State Construction Corporation Limited and (iv) Southern Structurals Limited.

[11] Turnover as per the latest finalised accounts as of 30 September 2015.

Turnover of PSUs has increased continuously from 2010-11 to 2014-15 and increased by 57.78 *per cent* in 2014-15 as compared to 2010-11. Percentage of turnover of PSUs to State GDP decreased from 2010-11 to 2014-15.

**1.15** Overall losses incurred by State working PSUs during 2010-11 to 2014-15, as per the latest finalised accounts are given below in bar chart.

**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 2010-11 to 2014-15, which increased from ₹ 11,331.50 crore to ₹ 14,853.45 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 65 working PSUs, 41 PSUs earned a profit of ₹ 1,979.79 crore and 20 PSUs incurred a loss of ₹ 16,833.24 crore. In respect of Tamil Nadu Civil Supplies Corporation Limited, 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.

The accounts finalised as of 30 September 2015 indicate that major contributors to profit were Tamil Nadu Transmission Corporation Limited (₹ 1,308.03 crore), Tamil Nadu Newsprint and Papers Limited (₹ 166.73 crore), Tamil Nadu Power Finance and Infrastructure Development Corporation Limited (₹ 105.78 crore), State Industries Promotion Corporation of Tamil Nadu Limited (₹ 87.21 crore), Tamil Nadu Industrial Development Corporation Limited (₹ 56.99 crore), Tamil Nadu Industrial Investment Corporation Limited (₹ 25.73 crore) and Arasu Cable TV Corporation Limited

[12] Serial Number 20, 25 and 42 of Annexure-2.

(₹ 18.46 crore). Heavy losses were incurred by Tamil Nadu Generation and Distribution Corporation Limited (₹ 13,985.03 crore) and all the eight[13] State Transport Corporations (₹ 2,654 crore).

**1.16** Some other key parameters of PSUs are given below:

**Table:1.10 Key parameters of State PSUs**

**(₹in crore)**

| Particulars | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|---|---|---|---|---|---|
| Return on capital Employed (*per cent*) | NIL[14] | NIL | NIL | NIL | NIL |
| Debt | 46,792.10 | 43,157.68 | 62,044.08 | 77,285.51 | 86,727.04 |
| Turnover[15] | 55,193.64 | 65,804.92 | 70,673.60 | 83,455.24 | 87,083.36 |
| Debt/turnover ratio | 0.85:1 | 0.66:1 | 0.88:1 | 0.93:1 | 0.99:1 |
| Interest payments | 4,436.43 | 5,808.14 | 6,649.97 | 7,840.67 | 9,830.89 |
| Accumulated losses | 33,621.12 | 59,636.87 | 38,233.61 | 50,826.43 | 65,725 .89 |

**(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 are 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 is higher, subject to availability of disposable profits. As per their latest finalised accounts as of 30 September 2015, 41 State PSUs earned an aggregate profit of ₹ 1,979.79 crore and 17 PSUs declared a total dividend of ₹ 162.02 crore. Of this, major contributors of the dividend were Tamil Nadu Newsprint and Papers Limited (₹ 41.53 crore), Tamil Nadu Power Finance and Infrastructure Development Corporation Limited (₹ 31.73 crore), State Industries Promotion Corporation of Tamil Nadu Limited (₹ 26.06 crore) and Tamil Nadu Industrial Development Corporation Limited (₹ 21.61 crore) aggregating to ₹ 120.93 crore, which worked out to 74.64 *per cent* of total dividend declared (₹ 162.02 crore) during the year 2014-15.

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

**Table:1.11 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 | 7.72 | NIL | 5 |
| 2. | TAHDCO | 0.69 | NIL | 8 |

13 Serial number 56 to 63 of Annexure-2.

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

15 Turnover of working PSUs as per the latest finalised accounts as of 30 September 2015.

| Sl.No. | Name of the Company | Dividend to be declared as per GO | Dividend actually declared | Reference to Serial Number in Annexure-2 |
|---|---|---|---|---|
| 3. | TN Women Limited | 2.33 | NIL | 11 |
| 4. | TUFIDCO | 1.03 | 0.64 | 12 |
| 5. | TN Road Development | 3.00 | NIL | 22 |
| 6. | IT Expressway | 2.16 | NIL | 23 |
| 7. | TANSI | 6.00 | NIL | 27 |
| 8. | TANMAG | 5.00 | NIL | 36 |
| 9. | TNPL | 50.02 | 41.53 | 40 |
| 10. | TANTRANSCO | 392.41 | NIL | 44 |
| 11. | Arasu Cable | 7.50 | 5.50 | 65 |
| 12. | TANWARE | 4.51 | 2.28 | |

**(Source: Latest finalised accounts of companies)**

## Winding up of non-working PSUs

**1.18** There were seven non-working PSUs as on 31 March 2015. Of these, one PSU[16] had commenced liquidation process and one PSU[17] had since wound up its operation in 2015-16. The number of non-working companies at the end of each year during the past five years are given below:

**Table:1.12 Non-working PSUs**

| Particulars | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|---|---|---|---|---|---|
| Number of non-working companies | 9 | 13 | 13 | 13 | 7 |

**(Source: Details collected from the Government)**

Since the non-working PSUs are not contributing to the State economy and meeting the intended objectives, these PSUs may be considered either to be closed down or revived. During 2014-15, five non-working PSUs incurred an expenditure of ₹ 45.85 lakh. This expenditure was met from the internal resources of these PSUs.

**1.19** The stages of closure in respect of non-working PSUs are given below:

**Table:1.13 Closure of non-working PSUs**

| Sl. No. | Particulars | Companies |
|---|---|---|
| 1. | Total number of non-working PSUs | 7 |
| 2. | Of (1) above, the number under | |
| (a) | Liquidation by Court (liquidator appointed) | --- |
| (b) | Voluntary winding up (liauidator appointed) | 1 |

16 Tamil Nadu Goods Transport Corporation Limited.
17 Tamil Nadu Sugar Cane Farms Corporation Limited.

| Sl. No. | Particulars | Companies |
|---|---|---|
| (c) | Closure, *i.e.*, closing orders/instructions issued but liquidation process has not yet started | 4 |
| 3. | Merger orders issued and pending implementation | 2 |

**(Source: Details furnished by the Government)**

During the year 2014-15, six companies were finally wound up. The process of voluntary winding up under the Companies Act is much faster and needs to be pursued vigorously. Tamil Nadu Sugarcane Farms Corporation Limited was wound up in 2015-16. The Government may take a decision regarding winding up of the remaining six non-working PSUs.

## Accounts Comments

**1.20** 52 working companies forwarded their 56 audited accounts to AG during the year 2014-15. Of these, 36 accounts of 34 companies were selected for supplementary audit. The audit reports of statutory auditors appointed by CAG and the supplementary audit of CAG indicate that the quality of maintenance of accounts needs to be improved substantially. The details of aggregate money value of comments of Statutory Auditors and CAG are given below:

**Table:1.14 Impact of audit comments on working companies**

**(₹ in crore)**

| Sl. No. | Particulars | 2012-13 | | 2013-14 | | 2014-15 | |
|---|---|---|---|---|---|---|---|
| | | No. of accounts | Amount | No. of accounts | Amount | No. of accounts | Amount |
| 1. | Decrease in profit | 9 | 53.40 | 7 | 106.59 | 9 | 170.29 |
| 2. | Increase in profit | 4 | 286.70 | 4 | 326.32 | --- | --- |
| 3. | Increase in loss | 12 | 9,117.30 | 14 | 10,674.85 | 14 | 11,207.08 |
| 4. | Decrease in loss | 2 | 47.86 | --- | --- | 3 | 87.79 |
| 5. | Non-disclosure of material facts | 3 | 69.57 | 2 | 2.25 | 1 | 44.94 |
| 6. | Errors of classification | 2 | 172.90 | 2 | 246.03 | 8 | 101.50 |

**(Source: Latest finalised annual accounts of companies)**

During the year, the Statutory Auditors had given unqualified certificates for 29 Accounts, qualified certificates for 26 accounts and adverse certificate (which means that accounts do not reflect a true and fair position) for one account. The compliance of companies with the Accounting Standards remained poor, as there were 52 instances of non-compliance in 19 accounts during the year.

**1.21** Similarly, the Tamil Nadu Warehousing Corporation forwarded its accounts for 2013-14 to AG during the year 2014-15, for which supplementary audit was conducted. The Audit Reports of Statutory Auditors indicate that the quality of maintenance of accounts needs to be improved substantially. The details of aggregate money value of comments of Statutory Auditors and CAG are given below:

**Table:1.15 Impact of audit comments on Tamil Nadu Warehousing Corporation**

**(₹in crore)**

| Sl. No. | Particulars | 2012-13 | | 2013-14 | | 2014-15 | |
|---|---|---|---|---|---|---|---|
| | | No. of accounts | Amount | No. of accounts | Amount | No. of accounts | Amount |
| 1. | Decrease in profit | 1 | 3.55 | 1 | 3.81 | 1 | 3.44 |

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

## Response of the Government to Audit

### *Performance Audit and Paragraphs*

**1.22** For the Report of the CAG of India for the year ended 31 March 2015, three Performance Audits and 12 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 two compliance audit paragraphs were awaited from the State Government (January 2016).

## Follow-up action on Audit Reports

### *Replies outstanding*

**1.23** 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 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: 1.16 Explanatory notes not received (as on December 2015)**

| 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 | 01 | 14 |
| 2013-14 | 29.09.2015 | 01 | 15 | 01 | 15 |
| **TOTAL** | | **09** | **83** | **05** | **33** |

From the above, it could be seen that out of nine Performance Audits and 83 paragraphs, explanatory notes to five performance audits and 33 paragraphs in respect of eight departments, which were commented upon, were awaited (December 2015).

***Discussion of Audit Reports by COPU***

**1.24** The status as on 31 December 2015 of Performance Audits/paragraphs that appeared in Audit Reports (PSUs) and discussed by COPU was as under:

**Table 1.17 Reviews/Paras appeared in Audit Reports *vis-a-vis* discussed as on 31 December 2015**

| Period of Audit Report | Number of PAs/paragraphs | | | |
|---|---|---|---|---|
| | Appeared in Audit Report | | Para discussed | |
| | PAs | Paragraphs | PAs | Paragraphs |
| 2003-04 | 04 | 20[18] | 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***

**1.25** Action Taken Notes (ATNs) to 193 paragraphs pertaining to 35 Reports of the COPU presented to the State Legislature between April 2002 and March 2015 had not been received (December 2015) as indicated below:

**Table 1.18: 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 | 04 | 44 | 41 |
| 2010-11 | 01 | 17 | 17 |
| 2011-12 | 04 | 28 | 28 |
| 2012-13 | 01 | 06 | 06 |
| 2013-14 | 19 | 88 | 88 |
| **TOTAL** | **35** | **196** | **193** |

[18] 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 of replies to Inspection Reports/Explanatory Notes/Draft Paragraphs/Performance Audits 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

**1.26** This Report contains 11 paragraphs and three Performance Audits *i.e.*, on (i) Tamil Nadu Sugar Corporation Limited and Perambalur Sugar Mills Limited, (ii) Procurement of Wind energy by Tamil Nadu Generation and Distribution Corporation Limited and (iii) Construction, operation and maintenance of storage facilities by Tamil Nadu Warehousing Corporation involving financial effect of ₹ 1,217.55 crore.

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

**1.27** 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***

**1.28** 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 in 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 2014-15, TNERC issued three tariff orders including two on *suo motu* determination of Tariff for Generation and Distribution of TANGEDCO and Tariff for transmission and other related charges of TANTRANSCO and one Comprehensive Tariff Order on solar power.

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:1.19 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 2014-15, Transmission and Distribution losses worked out to 22.02 *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. Response from the Government to TANGEDCO's proposal was still awaited (December 2015). |
| 3. | Current operations in distribution to reach break-even | March 2003 | As per the certified accounts for 2014-15, TANGEDCO had incurred a loss of ₹ 12,756.59 crore and TANTRANSCO had incurred a loss of ₹ 112.93 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. The reduction of losses in the balance 392 feeders involves large capital works such as erection of sub-stations.<br>Energy Auditing was conducted on the lengthy HT feeders, which has more number of distribution transformers and load in all the Electricity Distribution Circles. |

**(Source: Details furnished by TANGEDCO)**

# CHAPTER-II

2.1 Performance Audit Relating to Tamil Nadu Sugar Corporation Limited and Perambalur Sugar Mills Limited

# CHAPTER - II

## 2.1 Performance Audit Report on Tamil Nadu Sugar Corporation Limited and Perambalur Sugar Mills Limited


### Executive Summary

***As of March 2015, there were 43 sugar mills in Tamil Nadu. Of these, two sugar mills were owned by two State Public Sector Undertakings (PSUs) viz., Tamil Nadu Sugar Corporation Limited (TASCO) and its subsidiary Perambalur Sugar Mills Limited (PSM). These two sugar mills contributed about four per cent of State sugar production during 2014-15. These two PSUs are financially sick since 1998 and 1999. Audit took up the Performance Audit of these PSUs covering the period from April 2010 to March 2015.***

***Planning for availability of sugarcane***

***Both the companies did not achieve the target for area registration for sugarcane cultivation during 2010-15 (except during 2010-12 in TASCO). The shortfall in area registration, which ranged between 6 and 29 per cent in TASCO and 4 and 35 per cent in PSM, led to reduction in availability of sugarcane to the extent of 2.55 lakh MT in TASCO and 5.08 lakh MT in PSM. Failure of the companies to promote drip irrigation impacted the availability of sugarcane. Due to not ensuring staggered plantation, there was bunching of sugarcane plantation and receipt of over-aged sugarcane upto 96 per cent during the five years of 2010-15.***

***Sugarcane procurement***

***During 2010-15, TASCO, which fixed the target for procurement of sugarcane more than 93 per cent of its installed capacity, had procured sugarcane ranging between 68 and 102 per cent of the target. However, though PSM had fixed its target between 46 and 83 per cent of its installed capacity, this lower target could be achieved only in 2010-11 and 2012-13 and in the balance three years, the achievement ranged between 66 and 82 per cent. Both the companies diverted sugarcane to other mills on unjustified grounds, resulting in loss of contribution of ₹ 9.92 crore. The procurement of sugarcane by both the companies with extraneous material, much in excess of the norm of one per cent, resulted in wasteful expenditure of ₹ 24.94 crore.***

***Production performance***

***Due to the inability of both the companies to maintain the corporate norm for recovery of sugar from the sugarcane crushed, the companies lost 36,472 MTs of sugar valued at ₹ 110.53 crore. Against the permitted loss of production hours of 8 per cent, the time loss suffered by TASCO ranged from 15.05 to 33.01 per cent and PSM from 18.57 to 39.71 per cent. The excess consumption of utilities viz., steam, bagasse and power beyond the permissible levels, led to avoidable extra expenditure of ₹ 17.59 crore.***

***The programme for modernisation and establishment of co-generation plant at a cost of ₹ 254.58 crore (taken up as part of rehabilitation of the companies) in February 2008, with scheduled completion by September 2011 remained incomplete (December 2015) due to inadequate deployment of labour force by the contractor. This led to continued inefficiencies in operation of the sugar mills.***

***Monitoring and internal control***

***There were frequent changes in the post of Chief Executives of the mills, with the average tenure during 2010-15 being only six months, resulting in lack of continuity in leadership. The Internal Audit in TASCO was confined only to financial matters. Absence of age-wise data of sugarcane procured beyond 12 months and sugarcane crushed beyond 24 hours are some of the deficiencies in internal control noticed in Audit.***

## Introduction

**2.1.1** In Tamil Nadu, sugarcane is cultivated in an area of 3.50 lakh hectares. The State contributes, approximately, seven to nine *per cent* of the national sugar production[19]. As of March 2015, there were 43 sugar mills in the State (with crushing capacity of 263 lakh MT *per annum*), of which two[20] were owned by public sector companies *viz.*, Tamil Nadu Sugar Corporation Limited (TASCO) and Perambalur Sugar Mills Limited (PSM), 16 were in Co-operative Sector and 25 in Private Sector. The sugar mills owned by PSUs contributed about four *per cent* of the State's sugar production during 2014-15.

TASCO, formed in 1974, manages Arignar Anna Sugar Mills (AASM) at Thanjavur district with an installed capacity of 2,500 tonnes crushed per day (TCD), while PSM, which was formed as a subsidiary of TASCO in 1976, has its sugar mill at Perambalur district with an installed capacity of 3,000 TCD.

***Organisational setup***

**2.1.2** The management of TASCO is vested in a Board of Directors (BOD), comprising of eleven Directors, nominated by Government of Tamil Nadu (Government) and headed by a Managing Director (MD), who also holds the post of Commissioner/Director of Sugar (C/DOS) of the State. Similarly, the management of PSM is vested in a BOD, comprising of seven Directors, nominated by Government including a Chairman-cum-Managing Director (CMD). The CMD/MD of both the companies are assisted by a General Manager, who is in charge of both the companies and two Chief Executives, who manage the activities at the sugar mills.

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19 The national sugar production during the year 2013-14 was 245.5 lakh MTs.

20 Arignar Anna Sugar Mills and Perambalur Sugar Mills.

## Scope and methodology of Audit

**2.1.3** The performance of TASCO and PSM was last reviewed and included in the Report of the CAG of India (Commercial) for the year ended 31 March 2005, Government of Tamil Nadu. During this review, audit observed that the performance of TASCO and PSM was adversely affected due to controllable factors such as (i) shortfall in procurement of sugarcane, (ii) low crushing rate of sugar mills, (iii) avoidable loss of production hours, (iv) consumption of utilities[21] over and above the norms, *etc.* The Committee on Public Undertakings (COPU) had discussed the review and recommended (May 2013) that both the companies should (i) avoid shortfall in sugarcane procurement, (ii) avoid time losses in operation of machinery and (iii) adhere to the norms for consumption of utilities.

The companies had initiated (February 2008) modernisation programme of their mills, which was in progress (December 2015). To evaluate the efforts taken by these companies in overcoming the deficiencies pointed out in the earlier review and examine the impact of modernisation programme, Audit took up a Performance Audit covering the period from April 2010 to March 2015.

Audit methodology involved scrutiny of the records at sugar mills and Head offices, of both the companies, at the DOS and the Government and interaction with the officials of TASCO and PSM. The Performance Audit commenced with an Entry Conference, held on 18 March 2015, in which audit scope, objectives and methodology were shared with the Management. The Draft Performance Audit Report was discussed with the DOS, Government of Tamil Nadu in the Exit Conference held on 17 December 2015. The views expressed by DOS in the Exit Conference and the reply received (January 2016) from the Government were considered and incorporated, where appropriate.

## Audit objectives

**2.1.4** The main objectives of the Performance Audit were to ascertain whether:

- adequate planning existed for ensuring availability of quality sugarcane;
- procurement of sugarcane was made economically;
- production activities were carried out economically, efficiently and effectively;
- adequate monitoring and internal control mechanism existed.

## Audit criteria

**2.1.5** The audit criteria adopted for assessing the achievement of the audit objectives were:

- policies and orders of the Government with reference to sugar production;
- annual financial forecasts and budgets;

21 Bagasse, steam and electricity, used for operation of sugar plant, are called utilities.

- financial and physical targets set by the companies;
- provisions of statutes applicable for sugar industry;
- industrial norms for production of sugar and consumption of utilities;

**Acknowledgement**

Audit acknowledges the co-operation and assistance extended by the staff and the management of both the companies in conducting this Performance Audit.

**Audit findings**

**2.1.6** The audit findings are discussed below:

**Financial position and working results**

**2.1.7** The financial position and working results of both the companies for the five years ending 2014-15 are given in **Annexures-3 and 4**. Analysis of the same revealed the following:

- The paid up capital of ₹ 118.21 crore of these companies was eroded by their accumulated loss of ₹ 310.52 crore due to short fall in procurement of sugarcane, delay in completion of modernisation of the mills, lower sugar recovery rate, excess consumption of utilities, *etc*., which are discussed in Paragraphs 2.1.13, 2.1.29, 2.1.19 and 2.1.22 to 2.1.25.
- TASCO earned profit only in two years, *i.e.*, 2010-11 and 2012-13 but sustained losses (₹ 46.56 crore) in the balance three years. Similarly PSM, which earned profit only in 2010-11, had incurred continuous losses amounting to ₹ 64.27 crore during the subsequent four years upto 2014-15. The profit earned in 2010-11 by these companies was not from their business operations, but out of Government support in the form of conversion of outstanding interest into capital and waiver of penal interest.
- PSM, which was dependent mainly on borrowings from the commercial banks for its working capital, had increased its borrowings from ₹ 145.94 crore to ₹ 187.57 crore during 2010-15.
- Both the companies were declared (2000) sick by the Board for Industrial and Financial Reconstruction (BIFR). The rehabilitation packages initiated by the companies in October 2008 (approved by the Government in September 2009), involved modernisation of mills and establishment of co-generation and ethanol plants. However, they were not completed even after receipt of share capital assistance from the Government, as discussed in Paragraphs 2.1.27 and 2.1.29. Consequently, the companies continued to be sick till date (December 2015).

**Planning for availability of sugarcane**

**2.1.8** The DOS had instructed the companies, from time to time, to undertake cultivation of adequate sugarcane for optimum utilisation of the installed capacity of the sugar mills. The deficiencies noticed in planning for availability of sugarcane are discussed below:

### *Shortfall in cane area development*

2.1.9 The DOS, based on the request from the mills, allots the agricultural areas to all the sugar mills in the State for development of sugarcane. The companies prepare their annual budget in September every year, projecting their requirement of sugarcane taking into account the expected yield and the crushing capacity of the mills. The companies, thereafter, register areas by entering into agreements with farmers for sugarcane development within the area allotted by DOS.

The details of target area fixed *vis-a-vis*., area actually registered are given in **Annexure-5**. Examination of the details in Annexure revealed the following:

- Both the companies did not achieve the target for area registration during 2010-15 (except during 2010-12 in TASCO) and the shortfall in area registration, ranging between 6 and 29 *per cent* in TASCO and 4 and 35 *per cent* in PSM, led to reduction in availability of sugarcane to the extent of 2.55 lakh MT in TASCO and 5.08 lakh MT in PSM during the above period. The shortfall in area registration was mainly due to lack of interest shown by the farmers for sugarcane cultivation due to low yield and delay in harvesting sugarcane to match the crushing capacity of the mills, resulting in blockage of their investment. However, Audit observed that yield of sugarcane could have been improved by the companies by motivating the farmers to carry out drought management practices, as discussed in Paragraphs 2.1.10 to 2.1.12. The failure to carry out staggered plantation, which led to procurement of over-aged cane, was also controllable by the companies as discussed in Paragraph 2.1.16.
- In respect of TASCO, the area registered continuously decreased from 14,780 acres in 2010-11 to 9,539 acres in 2014-15. Though TASCO had 1,915 acres available for registration in Cauvery basin (which is a high potential sugarcane production area), it registered only 675 acres during 2010-15.
- Against the average annual requirement of 17,200 acres to achieve the installed capacity, PSM registered only 10,357 to 10,899 acres during 2010-15. While approving (March 2008) the re-allocation of area of PSM to a private sugar mill, the De-limitation Committee[22] directed the Company to develop sufficient cane in the available areas, which was not done by the Company. Consequently, the capacity utilisation of the mill continuously decreased from 67 to 51 *per cent* during 2010-15.

The Government, in its reply, attributed decline in area registration to uncontrollable factors like decline in rainfall, insufficient irrigation, *etc*., forcing the farmers to choose other crops. It further stated that the field staff of the companies had been instructed to carry out nursery programme, encourage new ryots to cultivate cane, conduct periodical village level meetings and introduce new cane varieties to increase the productivity. Had the companies adopted the drought management practices, as prescribed by

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22 A Committee appointed by the State Government to re-allocate areas to the sugar mills.

DOS[23], during the earlier periods, they could have avoided shortfall in area registration.

***Non-ensuring the quality of seed cane***

**2.1.10** During 2010-15, both companies had earmarked areas ranging from 13 to 22 acres for captive sugar farms[24] in the premises of the mills. It was, however, noticed that both companies failed to exploit the entire area of captive farms. Though TASCO developed seed cane in 0.5 to 6 acres of captive land and supplied 312 MT of seed cane, PSM did not develop any seed cane from the captive farms.

The Government replied that the nurseries are maintained by the farmers at village level, which ensured supply of good quality seeds. The reply is, however, not specific to the reasons for shortfall in development of captive farms in the mill's premises.

***Shortfall in achievement of drip irrigation targets***

**2.1.11** As per the Policy note of the Government, drip irrigation of sugarcane would ensure increase in productivity and irrigation with the available water. The targets fixed by DOS and achievements thereagainst by the companies under drip irrigation for in-plant[25] area of cultivation are tabulated below:

**Table -2.1.1**

**Target and achievement for drip irrigation**

**(Area in acre)**

| Planting Season | TASCO | | | | PSM | | | |
|---|---|---|---|---|---|---|---|---|
| | Total in-plant area | Target | Achieve-ment | Achieve-ment (in *per cent* of in-plant area) | Total in-plant area | Target | Achieve-ment | Achieve-ment (in *per cent* of in-plant area) |
| 2009-10 | NA | 562 | 425 | -- | 6,475 | 500 | 172 | 2.65 |
| 2010-11 | 7,473 | 688 | 621 | 8.30 | 6,219 | 500 | 224 | 3.60 |
| 2011-12 | 5,867 | 750 | 568 | 9.68 | 4,918 | 500 | 135 | 2.74 |
| 2012-13 | 5,021 | 769 | 683 | 13.6 | 3,269 | 500 | 169 | 5.16 |
| 2013-14 | 4,834 | 250 | 225 | 4.64 | 4,414 | 800 | 376 | 8.51 |
| **TOTAL** | **23,195** | **3,019** | **2,522** | | **25,295** | **2,800** | **1,075** | |
| **Grand total (TASCO+PSM)** | **48,490** | **5,819** | **3,597** | | | | | |

**Source: Details furnished by the companies**

23 DOS prescribed drought management practices, drip irrigation, introduction of drought tolerant varieties to overcome shortfall in rainfall and drought situations.

24 Captive farms are used to raise primary nursery to demonstrate new technology and to try new varieties of sugarcane.

25 Initial plantation of sugarcane from the seeds.

Against the total in-plant area of 48,490 acres, target for coverage of drip irrigation was fixed only as 5,819 acres (12 *per cent*). However, even this could not be achieved and the drip irrigation was achieved only in 3,597 acres, *i.e.*, 62 *per cent* of the target despite availability of subsidy of ₹ 43,816 per acre. The continued shortfall in drip irrigation indicated that the companies failed to promote drip irrigation methods, which impacted the yield of sugarcane.

The Government admitted that the farmers' reluctance to adopt drip irrigation was on account of cumbersome procedures in obtaining subsidy and stated that steps were being taken to simplify the procedures.

***Failure to achieve staggered planting programme***

**2.1.12** DOS fixed the month-wise target for planting sugarcane during November to April every year in a staggered manner for getting continuous supply of right age cane[26] in the following year. The detailed analysis of the plantation programme carried out by these companies revealed the following:

- TASCO achieved its month-wise targets only in five out of 26 months in respect of in-plant crop and 12 out of 25 months in respect of ratoon[27] crop.
- While TASCO achieved 60 to 86 *per cent* of the annual targets between November and January, PSM planted 10 to 18 *per cent* of the cane after May in all the years upto 2014-15 resulting in receipt of over-aged sugarcane in the subsequent crushing season, as discussed in Paragraph 2.1.16.

The Government replied that the planting programme was dependent on the mills requirement of cane. However, the mills did not receive sugarcane to their requirement and the shortfall in sugarcane procurement persisted in all the five years of 2010-15, as discussed in Paragraph 2.1.13.

## Sugarcane procurement

***Shortfall in sugarcane procurement***

**2.1.13** Both TASCO and PSM fixed the annual requirement of sugarcane based on their crushing capacity of 4.30 lakh MT and 5.16 lakh MT respectively. The target and the actual procurement of sugarcane in the last five years upto 2014-15 are given in **Annexure-6**. It would be seen that:

During 2010-15, TASCO fixed the procurement target of more than 93 *per cent* of its installed capacity and its achievement ranged between 68 and 102 *per cent* of the target. But, PSM fixed its target between 46 and 83 *per cent* of its installed capacity. Even the lower target was achieved only in 2010-11 and 2012-13, while in the balance three years, the achievement ranged between 66 and 82 *per cent* only. Significantly, COPU had recommended that both the companies should avoid shortfall in sugarcane procurement. Had these companies procured the sugarcane, equivalent to their installed capacity, the

26 The right age of in-plant cane is 12 months and for ratoon cane is 11 months.

27 Germination of crop from root portion of harvested sugarcane.

same would have resulted in additional contribution to the extent of ₹ 25.32 crore.

*Avoidable cane diversion*

2.1.14 During the period 2010-15, TASCO diverted 2.36 lakh MT of sugarcane and PSM diverted 2.86 lakh MT to other co-operative and private mills. Analysis of the diversions revealed the following:

- PSM diverted 2.77 lakh MT of sugarcane due to breakdown of the machinery. As the mills are operated only for 172 days in a year and balance period is earmarked for maintenance and repair of the machinery, large scale breakdown of machinery during the crushing period was avoidable.
- TASCO diverted 1.91 lakh MT (1.30 lakh MT in 2011-12 and 0.61 lakh MT in 2014-15) of sugarcane, citing employees' strike as a reason. Considering the daily crushing capacity of 2,500 MT, the Company should have diverted only 1.48 lakh MT during the entire strike period of 59 days. Hence, the diversion of 0.43 lakh MT was avoidable.
- TASCO had also diverted 27,937 MT of sugarcane due to specific request from other mills. Diversion on this account was avoidable as TASCO itself was not crushing to its fullest capacity during the period of diversion.

These avoidable diversions resulted in loss of contribution of ₹ 9.92 crore (TASCO- ₹ 3.39 crore and PSM ₹ 6.53 crore) to the companies.

The Government replied that the diversions were made to protect the interests of the farmers during the non-operational periods of the mills. The reply is not convincing because some of these diversions were avoidable in view of the reasons mentioned in the above paragraphs and were against the financial interest of the companies.

*Procurement of cane with excess extraneous material*

2.1.15 As per the Sugarcane Control Order of 1966, the sugar companies were allowed to procure one *per cent* on the gross weight of sugarcane as its binding material. Further, to ensure receipt of clean cane and to control the receipt of extraneous materials, such as tops, roots, water shoots, mud *etc.*, the DOS issued (May 2001) four-tier control measures in the field at the time of harvesting, receiving the cane at the yard, testing at the laboratory and for carrying out surprise checks. Audit, however, noticed that none of these checks were carried out by the companies during the period 2010-15. Sugarcane received by the mills included extraneous material ranging between 2.77 and 25.45 *per cent* of the sugarcane procured. This resulted in wasteful expenditure of ₹ 24.94 crore (for purchase of 1.02 lakh MT of extraneous material over and above the norm) to these companies.

The Government replied that every year the extraneous matter in the harvested cane was closest to the norms. The fact, however, remains that the percentage of extraneous materials was beyond the norms prescribed by DOS.

### *Procurement of over-aged cane*

**2.1.16** As per the directions issued by DOS from time to time, cutting of the right age cane would result in achieving sugar recovery above 9.50 *per cent*. Against this direction, the companies procured over-aged sugarcane during the period 2010-15 as tabulated below:

**Table -2.1.2**

**Proportion of over-aged sugarcane in total procurement**

| Crushing season | TASCO | | | PSM | | |
|---|---|---|---|---|---|---|
| | Cane procured* | Total over-aged cane | | Cane procured* | Total over-aged cane | |
| | In lakh MT | In lakh MT | In *per cent* | (In lakh MT) | In lakh MT | *In per cent* |
| 2010-11 | 4.06 | 2.4 | 59.14 | 3.39 | 2.98 | 87.77 |
| 2011-12 | 3.52 | 1.77 | 50.42 | 2.84 | 2.32 | 81.68 |
| 2012-13 | 3.7 | 1.9 | 51.36 | 2.83 | 1.55 | 54.84 |
| 2013-14 | 3.36 | 1.01 | 30.03 | 2.77 | 1.78 | 64.14 |
| 2014-15 | 2.93 | 2.81 | 95.79 | 2.62 | 2.51 | 95.76 |

**Source: Details furnished by the companies**

*** Cane from its own area.**

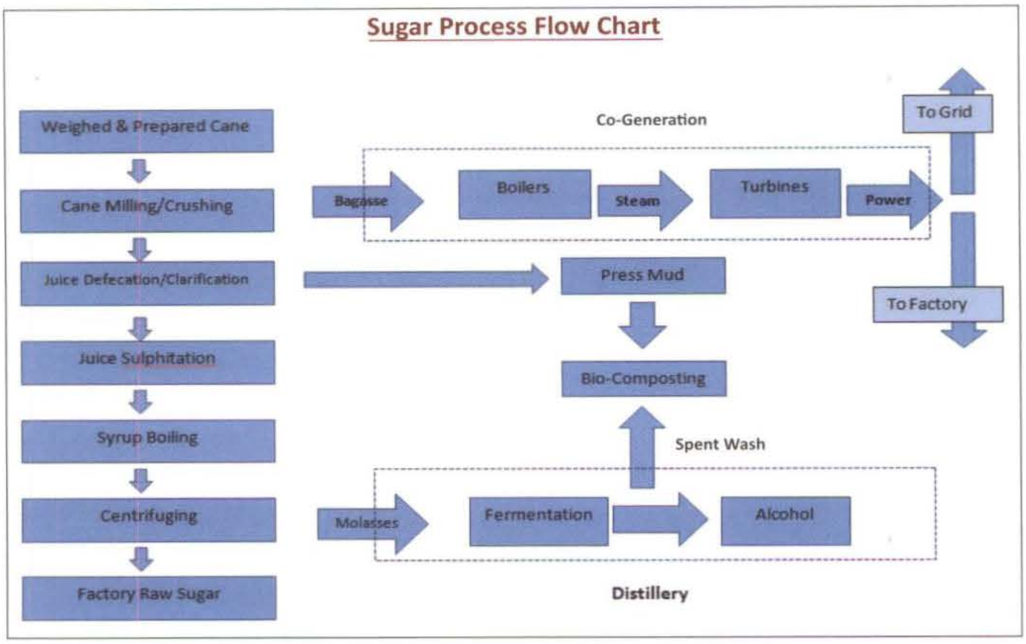
The percentage of over-aged cane procured by TASCO ranged between 30 and 96 *per cent* and the same in respect of PSM was between 55 and 96 *per cent* during the period 2010-15. The receipt of over-aged sugar cane was due to non-adoption of staggered plantation method (as discussed in the Paragraph 2.1.12) and partly due to stoppage of mills due to breakdowns *etc.* The usage of over-aged sugarcane led to low recovery of sugar, as discussed in detail in the Paragraph 2.1.19.

The Government attributed the crushing of over-aged cane to employees' strike at the commencement of the crushing season and frequent breakdown of old age machinery. The fact, however, remains that the failure of the companies to follow staggered plantation, as per the directions of DOS, was the main reason for receipt of over-aged sugarcane, as discussed in Paragraph 2.1.12.

## Production performance

### *Manufacturing Process*

**2.1.17** The process of sugar manufacturing is depicted in the following diagram:




The effective functioning of the sugar mill depends on availability of good quality sugarcane, optimum utilisation of machinery and prudent utilisation/sale of by-products.

### *Profitability of cane crushed*

**2.1.18** The cost involved in crushing of one tonne of sugarcane and the sales realisation in respect of sugar and the by-products, *viz*., molasses, bagasse and press mud in respect of both the companies are detailed below:

**Table -2.1.3 Cost of production**

**TASCO** **(Amount in ₹)**

| Particulars | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|---|---|---|---|---|---|
| Cost per MT of cane crushed | 2,486 | 2,627 | 3,171 | 3,368 | 3,311 |
| Amount realised per MT of cane crushed | 2,931 | 2,997 | 3,172 | 3,222 | 2,948 |
| Profit/Loss (-) per MT of cane crushed | 445 | 370 | 1 | (-)146 | (-)363 |

**PSM** **(Amount in ₹)**

| Particulars | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|---|---|---|---|---|---|
| Cost per MT of cane crushed | 2,717 | 2,979 | 3,391 | 3,748 | 3,371 |
| Amount realised per MT of cane crushed | 2,827 | 2,832 | 3,290 | 3,310 | 3,026 |
| Profit/Loss (-) per MT of cane crushed | 110 | (-)147 | (-)101 | (-)439 | (-)345 |

**Source: Details furnished by the companies**

Both TASCO and PSM had incurred operating losses in the major portion of the five year period upto 2014-15 on account of (i) annual increase of State

Advised Price (SAP) by the Government (from ₹ 2,000 in 2010-11 to ₹ 2,650 in 2014-15), (ii) fall in revenue realisation per MT of sugar (from ₹ 2,451 in 2010-11 to ₹ 2,092 in 2014-15 in TASCO and ₹ 2,503 in 2010-11 to ₹ 2,188 in 2014-15 in PSM) and (iii) loss of 15 to 40 *per cent* of production hours, against the norm of 8 *per cent* due to frequent repairs and maintenance and engineering problems of the mills, usage of utilities in excess of the norms, not carrying out modernisation in a time bound manner, *etc.* While increase in cost of procurement of sugarcane and decrease in selling price of sugar were not in the control of the company, the other factors *viz.*, improper maintenance of the machinery and delay in modernisation were controllable. Audit analysis of these controllable factors revealed the following:

***Failure to maintain budgeted sugar recovery rate***

**2.1.19** As per the corporate plan of the companies, a norm of 9 to 9.50 *per cent* of sugarcane crushed was adopted for sugar recovery. Against this norm, the actual sugar recovery rate decreased from 8.74 to 7.05 *per cent* in TASCO and from 8.79 to 7.60 *per cent* in PSM, during 2010-15. Consequently, these companies lost 36,472 MT of sugar valued at ₹ 110.53 crore, as detailed in **Annexure-7**.

The lower recovery rate of sugar was due to crushing of over-aged cane in all the five years, as discussed in Paragraph 2.1.16 and existence of excessive extraneous matter in cane crushed, as discussed in Paragraph 2.1.15.

**Crushing of sugarcane beyond 24 hours of its receipt** -- As per the orders of DOS, the sugarcane is required to be crushed within 24 hours of its harvesting to avoid loss in cane weight due to moisture loss and reduction in sugar content. However, Audit noticed that during the five years upto 2014-15, TASCO had crushed 10.97 lakh MT out of 17.58 lakh MT (62 *per cent*) and PSM had crushed 14.16 lakh MT out of 14.59 lakh MT (97 *per cent*) of sugarcane beyond 24 hours of its receipt. PSM did not maintain data on waiting time of cane to be crushed beyond 24 hours. Similarly, TASCO did not maintain such data for sugarcane with waiting time of more than 32 hours. In the absence of the above data, Audit could not ascertain the extent of sugarcane crushed beyond the excessive waiting time of 24/32 hours in PSM and TASCO and its impact on sugar recovery.

**Loss on account of escapement of sugar** -- As per the norms fixed by both the companies in their corporate plan, there could be escapement of sugar upto 1.80 *per cent* of the sugarcane crushed. However, the actual percentage of escapement of sugar in respect of TASCO ranged between 1.84 and 2.14 and in respect of PSM between 1.97 and 1.99 of the sugarcane crushed. The quantity of sugar lost on account of this reason worked out as 4,423 MT of sugar. However, both the companies did not analyse the specific reasons for excess escapement of sugar in the process.

The Government replied that the sugar recovery rate would be improved after completion of modernisation of the mills.

***Shortfall in sugarcane crushing rate***

**2.1.20** The installed crushing capacity of the sugar mills, as mentioned in the corporate plan, in respect of TASCO and PSM was 2,500 and 3,000 TCD respectively. However, Audit noticed that, while PSM never achieved the maximum capacity during the entire period of five years upto 2014-15, TASCO achieved it only on 354 out of 795 crushing days (45 *per cent*) in the above period. Due to under-performance of the mills, the crushing period, which should have lasted for 704 days and 487 days, was extended upto 952 days and 706 days in respect of TASCO and PSM respectively. This extended crushing season resulted in additional labour cost, which was worked out by Audit to ₹ 9.83 crore. The reasons for the low efficiency of the mills were frequent stoppages of mill on account of engineering problems and excessive time for general cleaning.

Agreeing with Audit, the Government replied that the position would improve once modernisation and co-generation works are completed.

***Analysis of mill stoppages***

**2.1.21** The corporate plan of the companies permitted a time loss of 8 *per cent* (2 *per cent* for want of cane, 2.50 *per cent* for engineering problems, 3 *per cent* for cleaning and 0.50 *per cent* for other reasons) of the available production hours. The analysis of segment-wise time loss, in both the companies during the period 2010-15, is tabulated below:

**Table – 2.1.4**

**Analysis of loss of production hours**

**(loss of hours in percentage)**

| Crushing season | Cane | | Engineering | | Cleaning | | Others | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | TASCO | PSM | TASCO | PSM | TASCO | PSM | TASCO | PSM | TASCO | PSM |
| 2010-11 | 4.50 | 10.38 | 2.15 | 3.19 | 4.52 | 1.24 | 7.79 | 9.43 | 18.96 | 24.24 |
| 2011-12 | 0.91 | 0.94 | 1.75 | 8.13 | 3.92 | 2.96 | 23.56 | 27.68 | 30.14 | 39.71 |
| 2012-13 | 5.52 | 2.21 | 4.72 | 4.95 | 4.46 | 5.35 | 3.34 | 6.06 | 18.04 | 18.57 |
| 2013-14 | 5.80 | 2.49 | 1.92 | 11.28 | 4.45 | 4.59 | 2.88 | 5.26 | 15.05 | 23.62 |
| 2014-15 | 3.76 | 3.65 | 10.72 | 8.54 | 5.45 | 5.24 | 13.08 | 5.97 | 33.01 | 23.40 |

**Source: Physical performance report of the companies**

- Against the permitted time loss of 8 *per cent,* the percentage of time loss suffered by TASCO ranged between 15.05 and 33.01 and in respect of PSM, the same was ranging between 18.57 and 39.71.
- Both TASCO and PSM achieved the norm of 2 *per cent* of time loss on account of want of cane only in 2011-12. In the remaining four years, the percentage of time loss was in excess of the norms. This indicated that the companies did not synchronise receipt of sugarcane with the daily cane cutting requirements.
- COPU had recommended avoiding time losses on account of breakdown of machinery. However, TASCO maintained its time loss within the norm only in three years (2010-11, 2011-12 and 2013-14) and PSM could not maintain the time loss in any year due to breakdowns. This was despite the fact that the mills are working only during the crushing season, which extended to a maximum of 210 days during the five years upto 2014-15 and had the remaining days of the year to take care of repairs and

preventive maintenance of the mills. This indicated that the preventive maintenance of the machinery of the mills was not carried out at the required level.

- As projected in the corporate plan, the normative cost of repairs and maintenance was to be restricted to ₹ 30 per MT of cane crushed. Against this norm, the actual expenditure on repairs and maintenance incurred by PSM ranged between ₹ 39 and ₹ 66, whereas in respect of TASCO, the same was between ₹ 49 and ₹ 156 during the five years ending 2014-15. Consequently, the companies incurred excess repairs and maintenance expenditure to the extent of ₹ 10.96 crore. Further, the comparison by Audit with the expenditure on repairs and maintenance (₹ 36 and ₹ 42 per MT) incurred by two co-operative sugar mills[28] of similar capacity during 2014-15, indicated that the same was lower than that of the two sugar mills. Had the companies carried out the modernisation programme, as scheduled, the excess cost on repairs and maintenance could have been avoided.

***Excess consumption of utilities***

**2.1.22** The major utilities involved in the production of sugar are (i) bagasse (fuel required for raising steam), (ii) steam (required for operating the mills of the sugar plant and power turbines to generate power) and (iii) power. Audit analysis of the consumption of utilities revealed the following:

***Steam***

**2.1.23** Both the companies had projected that 50 *per cent* of the total steam generated from the boilers would be required for their processing activities. The balance 50 *per cent* was to be utilised for power generation. As against this, TASCO used steam for milling operations ranging from 52.72 to 57 *per cent* and PSM used 55 to 55.16 *per cent* during the period 2010-15 (details in **Annexure-8**). In addition, these companies also failed to generate the normative quantity of power by usage of the balance steam due to frequent failure of power turbines. These two factors led to purchase of additional power from TANGEDCO to the extent of 3.91 MUs valued at ₹ 2.89 crore instead of their selling 11.60 MUs of surplus power valued at ₹ 3.65 crore to TANGEDCO.

***Bagasse***

**2.1.24** Bagasse, the by-product obtained in sugar manufacturing process, is used as a fuel for the boilers to generate steam. The bagasse in excess of self consumption is also sold to the paper industries. The excess consumption of steam for milling activities and power generation, as discussed above, had resulted in excess consumption of bagasse as detailed in **Annexure-9**:

The excess consumption of bagasse was attributed to ageing of the boilers of sugar mills. The value of excess consumption of bagasse by both the companies, as worked out by Audit was ₹ 9.89 crore.

28 Cheyyar Co-operative Sugar Mills and Kallakurichi Co-operative Sugar Mills.

### *Power*

**2.1.25** The sugar mills of both the companies utilised power purchased from TANGEDCO, in addition to captive power generated from steam. The norm fixed by these companies for consumption of power in sugar production was 20 units per MT of sugarcane crushed. Audit analysis of the actual consumption of power against norm indicated that during the period of five years upto 2014-15, both the companies had consumed excess power to the extent of 24.20 lakh units valued at ₹ 1.16 crore.

Based on the Audit observation on the excess consumption of utilities included in the earlier review, COPU had recommended that the companies avoid the excess consumption. The Government had assured COPU that after the proposed modernisation of the mills, excess consumption of utilities would be avoided. However, the assurance was yet to be complied with, as the envisaged modernisation of the mills was not complete as of December 2015.

### *Disposal of by-products*

**2.1.26** The by-products obtained during production of sugar are (i) bagasse, (ii) molasses and (iii) press mud. While major portion of bagasse is consumed as fuel in the mills, the surplus quantity of bagasse and other by-products are sold in the market. Audit analysis of disposal of by-products, other than bagasse, revealed the following:

### *Molasses*

**2.1.27** During the five years upto 2014-15, both companies generated 1.38 lakh MT of molasses, which was sold for the manufacture of ethanol and raw spirit through tender initiated by Tamil Nadu Co-operative Sugar Federation Limited, the nodal agency for sale of by-products. Audit noticed that:

- In order to utilise the molasses generated from the sugar mills, the Government approved (July 2009) the proposals for establishment of two ethanol plants of 45 Kilo Litre per day (one each for TASCO and PSM) at a total cost of ₹ 91.50 crore. The project was to be funded by the Government's contribution of ₹ 17.40 crore, cane growers contribution of ₹ 9.16 crore as equity and the remaining amount of ₹ 64.94 crore was to be raised as loan from commercial banks.
- Though the Government contribution was received as early as in December 2010, the balance was not arranged by these companies due to their negative net worth. Consequently, the Government's share of equity was wiped off due to the continuous loss of these companies. The ethanol project was a non-starter, even six years after its approval by the Government, though nine private and two co-operative sugar mills within the State already had ethanol plants. Consequently, the companies were selling the molasses within the State at lower price and continued to suffer loss of revenue.

The Government replied that the delay in commissioning of ethanol plant was due to delay in selection of latest technology of the plant. The reply is not convincing because the said technology of the plant was not decided even after lapse of six years of approval of the project by the Government.

*Press mud*

2.1.28 The sugarcane juice, obtained in milling process, is added with chemicals to remove dirt and other impurities in the boiling house. The resultant residue is called press mud, which is used as fertiliser.

DOS directed (April 2010) the companies to sell the press mud to improve their revenue. While PSM had sold entire quantity of 18,190 MT of press mud in the market and realised ₹ 64.38 lakh, TASCO did not attempt to sell 49,099 MT of press mud generated during 2010-15 and allowed removal of press mud free of cost. Consequently, TASCO lost potential revenue of ₹ 1.05 crore[29].

The Government replied that based on the decision taken at Annual General Meeting of TASCO in December 2004, press mud was distributed free of cost to cane growers. However, the directions of DOS issued in April 2010, were subsequent to the Company's decision of 2004, which were not brought to the attention of BOD for its adherence, despite its weak financial position.

*Tardy implementation of modernisation programme*

2.1.29 Based on the proposal (July 2007) of the DOS, and as a part of the rehabilitation programme of the companies, the Government approved (February 2008) establishment of co-generation plants in TASCO and PSM through TANGEDCO[30]. The benefits of co-generation and modernisation, as projected in DPR (July 2008), were (i) reduction in the consumption of power and steam by 16 *per cent* in the mills and (ii) export of 172.51 Million Units (MUs) of additional power to TANGEDCO *per annum*. Due to accrual of cost reduction in milling operation and revenue by sale of power to TANGEDCO, the pay-back period of modernisation would be eight to nine years.

Accordingly, TANGEDCO awarded the contract for project implementation to an Engineering, Procurement and Construction (EPC) contractor (February 2010) at a total price of ₹ 254.58 crore. As per the contractual terms, the work was scheduled to be completed in September 2011. Audit analysis of the delay in implementation revealed the following:

- The scope of work of the contractor included establishment of co-generation plant in 10 co-operative sugar mills and modernisation cum co-generation in TASCO and PSM at a total cost of ₹ 1,125.63 crore. The work in all the sugar mills was to be completed within 18 months. However, the contractor had completed 90 *per cent* of the co-generation work in both the companies and 67 and 50 *per cent* of work, relating to modernisation of TASCO and PSM respectively, till date (December 2015). The slow progress of the work was attributed to inadequate deployment of labour force, as indicated in the review meetings. Further, the contractor failed to adhere to the 12 revised schedules committed in the 19 review meetings held between TANGEDCO, Government, sugar mills and the contractor during 2010-15. A show cause notice was issued by TANGEDCO in August 2015. Despite noticing the inordinate delay and

29 Worked out by Audit by comparing the rate obtained from a co-operative sugar mill.
30 The work was executed through TANGEDCO which is a power utility company because the power generated from the co-generation plant of these companies was to be sold to TANGEDCO.

repeated failures to adhere to the revised schedules, the Government did not initiate any action against the contractor.

- The agreement entered into between the companies and TANGEDCO (April 2011) for executing the project did not provide for any control over the project execution by these companies. Moreover, the agreement also did not determine the transfer price of project upfront. Hence, the possibility of the cost escalation on account of delayed completion, if any, being passed on to the companies is not ruled out.
- Besides the above, the delay in modernisation led to continued inefficiencies in operations of the mills in the areas of (i) sugar recovery rate being lower than the norms (Paragraph 2.1.19), (ii) frequent breakdowns of the machinery (Paragraph 2.1.21), (iii) consumption of steam and power in excess of the norms, *etc.* (Paragraphs 2.1.22 to 2.1.25)

Thus, the objective of the Government (as mentioned in the Industrial Policy 2009-10), to establish co-generation and ethanol plants within the sugar mills for a better product-mix and profitability, remained unfulfilled.

The Government replied that, as per the agreement between TANGEDCO and TASCO/PSM, the role of these companies was confined to reporting the progress of ongoing modernisation works to TANGEDCO. The reply confirms the audit point that the companies, which were the beneficiaries of modernisation and co-generation plants, were not given an active role in project implementation.

### Other points of interest

**2.1.30** (a) Audit had pointed out in the earlier review that the Government had not reimbursed the difference between the State Advised Price (SAP) and the Fair and Remunerative Price (FRP), fixed by the GOI for procurement of sugarcane, which resulted in additional burden to the companies. Following this, the Government had replied to COPU that the differential amount was reimbursed as ways and means advance. However, Audit observed that during the five years upto 2014-15, TASCO and PSM had incurred extra expenditure of ₹ 103.49 crore and ₹ 85.38 crore respectively on account of SAP being more than the FRP[31]. Neither the companies approached the Government to pay the differential amount as ways and means advance, nor the Government paid such advance as committed to COPU. PSM had been dependent on the cash credit from the commercial banks for payment to the sugarcane growers. Had the Government paid the differential amount to PSM, as assured to COPU, the cash credit of PSM, which stood at ₹187.57 crore as of March 2015, could have been reduced by ₹ 85.38 crore.

(b) As per the provisions of Sugar (Packing and Marketing) Order, 1970 issued by GOI, a producer shall pack all sugar manufactured in new jute bags, which shall contain 50 kg of sugar net. Audit observed that in violation of the above order, both the companies supplied 5,959 MT[32] of levy sugar to Food Corporation of India (FCI) in 100 kg jute bags, which led to non-recovery of

[31] The FRP increased from ₹ 1391.20 in 2010-11 to ₹ 2200 per MT in 2014-15. During the same period the SAP increased from ₹ 2000 to ₹ 2650 per MT.

[32] TASCO – 3,243 MT and PSM – 2,716 MT

₹ 2.68 crore from FCI for supply of sugar in 100 kg jute packs in 2009-11 even after five years of supply of sugar and repeated reminders from the DOS.

## Monitoring and internal control

**2.1.31** Monitoring of the activities of the organisation by the Management ensures the best practices and systems are followed within the organisation. The review of the monitoring mechanism, prevailing in these companies by Audit, revealed the following deficiencies:

- During the period 2010-15, 14 officials held the post of Chief Executive in each of the sugar mills of these companies. Out of the above, 10 officials were changed during the crushing period. The average tenure of these Chief Executives was only upto six months during the entire five years upto 2014-15. Only two officials held the post of Chief Executive for more than six months in both the companies. The mills suffered from lack of continuity of leadership.
- Though, in both the companies, the area under registration (as per agreements with the farmers), continuously declined every year, neither the management recorded the reasons for such reduction nor the management directed the companies to ascertain the reasons for such reductions.
- Both the companies had the data on procurement of sugarcane upto 12 months, upto 13 months and beyond 13 months. Though the procurement of sugarcane by these companies beyond 13 months constituted 30 to 96 *per cent* of total procurement, further break-up of this category, which was essential for arresting the procurement of over-aged sugarcane, was not compiled by the companies.

### *Non-utilisation of Simputers*

**2.1.32** Under the e-governance policy, the State Government issued 99 Simputers[33] (March 2011) to both the companies for real time capture of data relating to sugarcane farming operations. However, these simputers were not utilised at all by the companies due to non-motivation/training of staff by the Management. By not utilising the simputers, the companies not only violated the instructions issued (October 2011) by the DOS to stop manual system of recording of cane development activities from November 2011, but also deprived themselves of the benefits of (i) real time cane registration and harvesting at appropriate time and recording of payment details of individual farm holdings, (ii) on the spot information sharing between farmers and mills, (iii) web based storage of data and (iv) pest and disease management.

The Government replied that the simputers were not put to use as the field staff of the companies had limited knowledge of their operation.

[33] Hand held computer.

### *Adequacy of internal audit*

**2.1.33** The internal audit function of both the companies was outsourced to the firms of Chartered Accountants. The scope of internal audit of PSM included operational areas such as cane development, engineering and production activities, stores and purchases. However, the scope of internal audit of TASCO was confined to review of accounting and financial records. The Statutory Auditors had also in their report (2013-14), suggested for improvement in the scope of internal audit of TASCO.

The Government, in its reply, agreed to strengthen internal audit of TASCO.

## Conclusion

Both TASCO and PSM, which were declared sick companies in 2000, continued to be in the same state till date (December 2015) mainly due to (i) not taking up of qualitative and quantitative improvements in cane development such as staggered plantation, micro irrigation, raising of high yielding varieties of sugarcane, *etc.*, (ii) shortfall in procurement to the levels of mills' capacity and unwarranted diversion of sugarcane and (iii) procurement of over-aged sugarcane, upto 96 *per cent* and crushing of sugarcane beyond 24 hours of harvesting, upto 97 *per cent*.

Coupled with the above deficiencies, the companies also suffered due to delay of more than four years in completion of modernisation and co-generation projects, which had hampered the milling performance in terms of (i) not obtaining the envisaged sugar recovery, (ii) avoidable downtimes and (iii) consumption of utilities more than the norms.

The ethanol project, which was considered essential for improved efficiency of the sugar mills, was not taken up despite receipt of Government's equity.

Thus, both the companies continued to suffer from persistent deficiencies, without any remedial measures, resulting in accumulation of losses.

## Recommendations

Both the companies need to:

- Ensure registration of adequate area, adoption of drip irrigation methods and introduction of new sugar varieties, so as to procure adequate sugarcane to meet the installed capacity.
- Ensure staggered plantation and crushing of sugarcane within 24 hours of harvesting to ensure optimal sugar recovery.
- Expedite co-generation and modernisation programmes of the sugar mills, to improve the sugar recovery and to avoid the consumption of utilities beyond norms.

The Government, in its reply, stated that the recommendations would be scrupulously followed by the sugar companies for improving their physical and financial performance.

## 2.2 Performance Audit Relating to Procurement of Wind Energy by Tamil Nadu Generation and Distribution Corporation Limited

## 2.2 Performance Audit on Procurement of Wind Energy by Tamil Nadu Generation and Distribution Corporation Limited

### Executive Summary


***The State of Tamil Nadu, which had the wind power potential of 14,152 MW ranked third in the country, next to Gujarat and Andhra Pradesh. In respect of the installed capacity, the State ranked first in the country as on March 2015, with an installed capacity of 7,439 MW. Performance Audit was taken up to assess the system in place for management of wind energy procurement, including wheeling and its transmission, covering the period from 2010-11 to 2014-15.***

***Planning***

***Despite huge potential for wind energy, the State Government had not so far (December 2015) issued a comprehensive wind energy policy. This led to the State utilities viz, Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) and Tamil Nadu Transmission Corporation Limited (TANTRANSCO) lacking directions from the Government for planning and procurement of wind energy. Though Central Electricity Regulatory Commission mandated (April 2010) that the existing wind energy projects should schedule their energy generation by entering into agreement with transmission utilities, the relevant clauses were not included in any of the agreements with the 11,543 existing Wind Energy Generators (WEGs).***

***The connected load of 80 sub-stations out of the existing 115 sub-stations, had exceeded their available transmission capacity, which indicated absence of proper planning for optimum utilisation of the available capacity.***

***Procurement of wind energy***

***TANGEDCO is the nodal agency for according approval for establishment of wind mills within the State. Though temporary connection to the wind mills was to be given only for testing purpose, wind mills with connected load of 1,223 MW in two circles were found to be under temporary connection for periods ranging from one month to five years. TANGEDCO had not collected Infrastructure Development Charges of ₹ 87.59 crore payable for the period from August 2005 to November 2010. Invoices for operation and maintenance charges, amounting to ₹ 44.18 crore, had also not been raised and ₹ 3.98 crore was collected after the omission was pointed out by Audit.***

***Despite continuous increase in wind energy generated during 2010-11 to 2014-15, purchase by TANGEDCO declined from 60.30 to 39.08 per cent, due to continued backlog in making payments and constraints in transmission facilities. The resultant shifting of WEGs from sale of energy***

***to wheeling arrangements, caused a loss of ₹60.59 crore to TANGEDCO in respect of 173 test checked WEGs. Avoidable backing down (stoppage of generation based on the request of TANGEDCO) of wind energy, led to extra expenditure of ₹159.20 crore.***

### *Execution of transmission schemes*

***Though TANTRANSCO planned execution of five transmission works at a cost of ₹1,440.91 crore by 2013-14, these works were not completed as of December 2015, resulting in non-realisation of intended benefit of maximum evacuation of wind energy.***

### *Wheeling of wind energy*

***TANGEDCO did not collect transmission charges amounting to ₹124.19 crore from open access consumers and collected only ₹1.54 crore, after the omission was pointed out by Audit. Verification of system for payments for the banked wind energy revealed overpayment of ₹31.86 crore, carrying forward of banked energy valuing₹ 7.59 crore to subsequent months in violation of the orders and short billing of ₹3.75 crore as well as non-levy of penalty of ₹ 14.31 crore, due to irregular adjustment of banked wind energy during power holiday periods.***

***In 11 circles test checked, the benefits of group captive mechanism amounting to ₹122.20 crore was allowed to ineligible consumers.***

### *Monitoring and internal control*

***The monitoring and internal control mechanism was deficient, as TANGEDCO did not (i) carry out regular inspection of WEGs, (ii) levy penalty for continued low performance of WEGs and (iii) install the mandatory availability based tariff meters in 6,031 out of 11,543 wind mills.***

## Introduction

**2.2.1** Due to growth in urbanisation and industrialisation, there has been a continuous growth of demand for power in the State of Tamil Nadu. The requirement of energy, which was at 76,293 Million Units (MU) in 2009-10, had increased to 95,758 MU[34] in 2014-15. Against this requirement, the power availability[35] from all the entitled sources, during the same period, ranged between 64,492 MU and 76,981 MU. The energy projections[36] for the State indicated a further increase in annual energy requirement to 1,71,718 MU by 2021-22. TANGEDCO, which is the power generation and distribution utility of the State, had planned capacity addition of 8,360 MW[37] during the 12$^{th}$ Five Year Plan (2012-17). However, these additions, mostly from thermal plants were still under preliminary stages of implementation, such as obtaining coal linkage, finalisation of tenders, *etc.*, during the period from April 2012 to March 2015.

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34 CEA's Load Generation Balance Report 2010-11 and 2015-16.

35 TANGEDCO's Statistics at a glance.

36 Source: 18$^{th}$ Electric Power Survey Report of September 2011.

37 Source: 12$^{th}$ Five Year Plan (2012-2017) of Government of Tamil Nadu.

During the period from April 2010 to March 2015, the demand for power ranging from 73.60 to 84.53 *per cent* was met from own generation of TANGEDCO and the entitled share of power from the Central Generating Stations (CGS), as also purchases from Independent Power Producers (IPP), wind mills, *etc*. Further, 7.51 to 17.90 *per cent* of the demand was met by power purchase on short term basis. Despite the above, there was deficit of power ranging from 1.66 to 18.89 *per cent,* which forced TANGEDCO to impose restriction and control measures[38].

## Development of wind power in the State

**2.2.2** The National Electricity Policy envisaged optimal utilisation of renewable sources of energy in the development of power sector. As per the assessment made (2004) by the National Institute of Wind Energy (NIWE)[39], the total wind power potential in India was 48,561 MW, of which the share of Tamil Nadu was 5,530 MW, later re-assessed[40] and revised (2010) to 14,152 MW. The State was ranked third in the country, next only to Gujarat (35,071 MW) and Andhra Pradesh (14,497 MW). In respect of installed capacity as on 31 March 2015 (7,439 MW), the State was ranked first (All India capacity – 23,444 MW).

As the nodal agency for development of wind power in the State, TANGEDCO established (1986) the first of the demonstration windmill projects near Tuticorin with 20 Wind Electric Generators (WEGs), with capacity of 55 KW each. It further established (between 1986 and 1993) 101 more WEGs, totalling a combined capacity of 19.35 MW. Subsequent addition to the installed capacity was made by private developers. All the wind mills set up by TANGEDCO had already outlived their useful life of 20 years since 2013.

The table below indicates year-wise addition to installed capacity and wind energy generation in the State.

**Table – 2.2.1**

**Installed capacity and Generation of wind energy in the State**

| Year | Installed capacity (in MW) | | Generation (in MU) | |
|---|---|---|---|---|
| | During the year | Upto the year | TANGEDCO | Private |
| Upto 2009-10 | --- | 4,889.765 | 432 | 41,117 |
| 2010-11 | 997.400 | 5,887.165 | 13 | 8,707 |
| 2011-12 | 1,083.460 | 6,970.625 | 12 | 9,751 |
| 2012-13 | 166.050 | 7,136.675 | 13 | 12,935 |
| 2013-14 | 107.380 | 7,252.605 | 13 | 10,918 |
| 2014-15 | 186.250 | 7,438.855 | 8 | 10,140 |

**(Source-MIS Data of TANGEDCO)**

38 This includes power cuts and load shedding.

39 NIWE (earlier known as the Centre for Wind Energy Technology) is an autonomous R&D institution, set up by Ministry of New and Renewable Energy.

40 Wind resource assessment, evaluated at the average wind speeds above a section of land, at 80 metre hub level.

The private promoters could either (i) sell the wind energy to TANGEDCO at the tariff fixed by the Tamil Nadu Electricity Regulatory Commission (TNERC), or (ii) sell the wind energy to a third party within the State under open access by using TANGEDCO's grid[41] or (iii) transmit the energy through the State grid for their own captive consumption[42].

## Scope and methodology of audit

**2.2.3** A review on wind energy was conducted by Audit and included in the Report of the CAG of India (Commercial) for the year ended 31 March 2005, Government of Tamil Nadu. The review revealed deficiencies such as imbalance between generation and evacuation facilities, non-recovery of infrastructure development charges from the wind energy generators, non-recovery of line and distribution losses in evacuation of wind power and inadequate internal control systems in respect of adjustment of wind energy. Subsequent to this review, there were many developments in generation and transmission of wind energy in the State. TNERC issued three tariff orders (2006, 2009 and 2012) stipulating among others, the tariff for purchase of wind energy by TANGEDCO.

Performance Audit was, therefore, taken up to assess the system in place for management of wind energy procurement, including wheeling and its transmission, covering the period from 2010-11 to 2014-15.

Records relating to procurement and transmission of wind energy were verified in both TANGEDCO and TANTRANSCO in the two wind energy circle offices at Tirunelveli and Udumalpet, all the nine 'Generation End' distribution circles[43] and 21 out of 42 'Wheeling End' distribution circles[44], selected based on the number of wind energy adjustments. Records relating to construction of sub-stations and erection of transmission lines were verified in five General Construction Circles[45].

An Entry Conference was held with the Secretary, Energy Department, Government of Tamil Nadu on 12 March 2015, wherein the scope, objectives and audit criteria were shared. The Draft Performance Audit Report was also discussed with the management in the Exit Conference held on 30 November 2015. The views expressed by the management in the Exit Conference and the replies received from the Government in December 2015 were considered and incorporated, where appropriate, while finalising the report.

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41 TANGEDCO was entitled to charges for wheeling (transmission of energy from generating point to TANGEDCO's grid) and 50 *per cent* of cross subsidy fixed by TNERC.

42 TANGEDCO was entitled only for wheeling charges in these cases.

43 Distribution circles, where windmills are located and wind energy is generated – *viz*., Coimbatore (South), Dindigul, Kanyakumari, Ramnad, Theni, Tirunelveli, Tiruppur, Tuticorin and Udumalpet.

44 Distribution circles, where the transmitted wind energy is drawn for use, *viz*., Chengalpattu, Chennai (North), Chennai (South), Coimbatore (South), Coimbatore (Metro), Coimbatore (North), Dindigul, Erode, Gobi, Kanyakumari, Madurai, Madurai (Metro), Ramnad, Salem, Sivaganga, Theni, Tirunelveli, Tiruppur, Tuticorin, Udumalpet and Virudhunagar.

45 General Construction Circles where wind energy infrastructure projects are being carried out, *viz*., Chennai, Madurai, Coimbatore, Salem and Trichy.

## Audit objectives

**2.2.4** The objectives of the Performance Audit were to assess whether:

- adequate planning was in place for procurement of wind energy and creation of infrastructure for transmission of wind power;
- power procurement from the windmills was made efficiently, effectively and economically;
- sufficient infrastructure for transmission of wind power was created as per plan and executed effectively and economically;
- Energy Wheeling[46] Agreements (EWAs) were prepared as per relevant rules and procedures and the charges thereon were duly collected; and
- Monitoring and Internal Control system with reference to wind energy procurement and execution of transmission schemes were effective.

## Audit criteria

**2.2.5** The criteria adopted for the Performance Audit included:

- Electricity Act 2003, National Electricity Policy/Plans and plans of TANGEDCO/TANTRANSCO;
- guidelines issued by the Union Ministries of Power (MOP) and New and Renewable Energy (MNRE) and Tariff orders issued by TNERC;
- Board Minutes, Circulars and other instructions issued by TANGEDCO/TANTRANSCO.

## Acknowledgement

Audit acknowledges the co-operation and assistance extended by the staff and the management of TANGEDCO and TANTRANSCO in conducting this Performance Audit.

## Audit findings

**2.2.6** The audit findings are discussed below:

## Planning

### *Absence of policy for wind energy*

**2.2.7** Though Tamil Nadu had huge potential for wind energy with vast wind passes along the Western Ghats and was a leader in development of wind energy in the country, the State Government had not so far (December 2015) issued a comprehensive wind energy policy. However, in States like Andhra Pradesh, Gujarat and Rajasthan, where the installed capacity of wind energy was far less, separate wind energy policies already existed. Consequently, the State utilities, *viz.*, TANGEDCO and TANTRANSCO, lacked direction from the Government for planning and procurement of wind energy from the

46 Energy wheeling refers to transfer of energy from the generation end to the consumption end to enable consumption directly by the consumers.

WEGs. The absence of a policy was one of the contributing reasons for the State not exploiting the wind energy potential in a sustained manner and not absorbing the entire wind energy generated during the wind season.

The Government replied that the existing rules and regulations of TNERC, available for wind energy, would take care of the issues pointed out by Audit. The fact, however, remains that TNERC regulations are only directive in nature and not comprehensive in areas like wheeling, captive use of wind power, repowering *etc.* Therefore, laying down of policy at Government level would create a vision and long term direction for development of wind energy in the State.

***Planning for procurement***

**2.2.8** Planning for procurement of wind energy should take into account, the likely availability of wind power and proposed capacity additions during the ensuing period. The India Wind Atlas of 2010 indicated the potential of wind energy in the State at 80 metre mast height as 14,152 MW, against which the actual capacity as of March 2015 was 7,439 MW (*i.e.*, 53 *per cent* of the potential energy). Actual capacity addition, during 2012-2015, was a meagre 459.68 MW. Despite higher potential, TANGEDCO, as the nodal agency for development of wind power, failed to set annual targets for wind energy capacity addition and resultant procurement, based on the above projections. Since 2012-13, there was only minimal addition to capacity by the private windmill developers, which was mainly due to withdrawal of the benefit of Accelerated Depreciation[47] by the GOI with effect from April 2012, the uncertainty in continuation of the Generation Based Incentive[48] scheme and inadequate transmission facilities for evacuation of wind energy.

The Government replied that the revised potential of 14,152 MW would be tapped in a phased manner.

***Non-implementation of CERC guidelines for forecasting of wind energy***

**2.2.9** CERC mandated (April 2010) that all new wind energy projects of 10 MW and above should schedule power generation and provide forecast to the system operator[49]. In respect of wind energy projects with capacity below 10 MW and existing wind farms, scheduling of wind energy could be mutually agreed between the wind generator and the transmission utility. However, in Tamil Nadu, though a majority of the 11,543 WEGs were with capacity of less than 10 MW, TANTRANSCO had not initiated any action to enter into agreements with the private developers for forecasting of wind energy. An effective system for forecasting of wind energy, which would have greatly enabled TANGEDCO in planning its procurement of wind energy, was thus not put in place as of December 2015.

47 Accelerated depreciation is a tax benefit where 80 *per cent* of the project cost was allowed to be written off within the first year of operation, thereby substantially lowering the tax liability. The scheme has since been reintroduced from July 2014.

48 Generation Based Incentive is given at the rate of 50 paise per unit of power fed into the grid. The scheme, which was to end by the 11th Plan period, has now been extended to the 12th Plan period (September 2013). The delay in decision caused uncertainty.

49 TANTRANSCO is the system operator in Tamil Nadu.

Further, a pilot project for forecast of wind energy was established (May 2015) in the State by the NIWE in collaboration with the private wind energy developers. Based on the five day forecasts provided from the project, TANGEDCO was able to absorb 93 *per cent* of the wind power generated during July 2015. However, the required Renewable Energy Management Centres (REMCs) at TANTRANSCO's Load Despatch Centres (LDC), which would further enable accurate forecasting and scheduling, were not put in place as of December 2015. Consequently, TANGEDCO could not estimate possible generation and drawal of wind energy to reduce dependence on other sources of energy.

The Government replied that MNRE is presently scrutinising the project reports for establishment of REMCs and based on further directions of MNRE, the establishment of REMCs would be taken up.

***Infrastructure creation***

**2.2.10** As on 31 March 2015, against the installed generation capacity of 7,439 MW, TANGEDCO had transmission capacity for only 6,846 MW[50] (7,606 MVA) as indicated below:

**Table-2.2.2**

**Transmission facility available with TANGEDCO for evacuation[51] of wind energy as on 31 March 2015**

| | Aralvoimozhi Pass | | Shencottah Pass | | Palghat Pass | | Cumbum Pass | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **MVA** | **MW** | **MVA** | **MW** | **MVA** | **MW** | **MVA** | **MW** | **MVA** | **MW** |
| Windfarm Sub-stations | 1,365 | 1,229 | 1,056 | 950 | 1,624 | 1,462 | NIL | NIL | 4,045 | 3,641 |
| Distribution Sub-stations | 262 | 236 | 780 | 702 | 833 | 750 | 461 | 415 | 2,336 | 2,103 |
| Private Sub-stations | 100 | 90 | 350 | 315 | 600 | 540 | 175 | 158 | 1,225 | 1,102 |
| **Total** | **1,727** | **1,555** | **2,186** | **1,967** | **3,057** | **2,752** | **636** | **573** | **7,606** | **6,846** |

Further analysis, with reference to capacity available and connected load in the 115 sub-stations in these four passes, revealed that 35 sub-stations had adequate capacity for transmission of the connected load, whereas in 80 sub-stations, the connected load had already exceeded the available transmission capacity as detailed in the table below. This mismatch between the sub-station capacity and connected load indicated absence of proper planning for optimum utilisation of the available capacity.

50 Mega Volt Ampere (MVA) is converted into MW by multiplying it by a power factor of 0.9, as specified in the TNERC Supply Code.

51 Evacuation is transfer of wind energy from the generating station to the sub-station.

**Table-2.2.3**

**Sub-stations having excess/shortage in transmission capacity compared to connected load of WEGs as on 31 March 2015**

| | Aralvoimozhi Pass | | | Shencottah Pass | | | Palghat Pass | | | Cumbum Pass | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Capacity already overloaded | Spare capacity available | Total No. of sub-stations | Capacity already overloaded | Spare capacity available | Total No. of sub-stations | Capacity already overloaded | Spare capacity available | Total No. of sub-stations | Capacity already overloaded | Spare capacity available | Total No. of sub-stations |
| Wind farm sub-stations | 14 | 1 | 15 | 8 | 0 | 8 | 14 | 1 | 15 | NIL | NIL | NIL |
| Distribution sub-stations | 4 | 3 | 7 | 18 | 5 | 23 | 7 | 14 | 21 | 5 | 5 | 10 |
| Private sub-stations | 1 | 1 | 2 | 1 | 4[52] | 5 | 4 | 1 | 5 | 4 | 0 | 4 |
| **Total** | **19** | **5** | **24** | **27** | **9** | **36** | **25** | **16** | **41** | **9** | **5** | **14** |

**(Source: MIS data of TANGEDCO)**

In this connection, Audit observed that:

- The State's 12$^{th}$ Five Year Plan[53] (2012-17) envisaged creation of additional wind energy capacity of 6,000 MW during the Plan period. Moreover, TNERC had ordered (May 2006) creation of adequate transmission infrastructure in the critical areas of wind energy generation on an urgent basis. Audit had also pointed (2004-05) out in the earlier review that there was an imbalance in the generation and evacuation facilities and therefore, recommended correction of such imbalance. The continued imbalance between the generation and evacuation facilities revealed that TANGEDCO failed to overcome the mismatch in transmission facilities in a time bound manner.
- As on 31 March 2015, 2,058 applications, dating back to 2006-07, from the private wind energy developers seeking TANGEDCO's permission for setting up wind mills with capacity of 2,936 MW, were pending due to non-availability of evacuation facilities. This reflected absence of a long-term planning process for creation of transmission facilities on the part of TANGEDCO and TANTRANSCO.
- The 230 KV Kayathar – Abishekapatti feeder with route length of 25.174 kms was overloaded continuously during wind season from 2009 onwards. During the period April 2010 to March 2014, instructions from the SLDC were issued to the sub-stations[54] to back down[55] wind energy equivalent to 29.17 MU. However, TANTRANSCO had not initiated action for strengthening of the feeder/load segregation to avoid such backing down of power so far (December 2015).

52 This includes the Alankulam sub-station where the capacities were equal.

53 Power Grid Corporation's Green corridor report – Volume-II.

54 Sanganeri, Rastha, Pazhavur, Vadakkankulam, Muppanthal, SR Pudur, Maharajapuram, Irunkkanthurai, Ayyanarvoothu and Aralvoimozhi.

55 Backing down of energy refers to stoppage of generation of power by the wind energy generator based on the instructions of TANTRANSCO.

The Government replied that though the transformer capacity had been exceeded, the peak transmission was less than the transformer capacity and hence, there was no shortage of transformer capacity. The reply is not convincing because TNERC had prescribed that power transformers should not be loaded to more than 70 *per cent* of their capacity and the available 30 *per cent* surplus capacity could cater to the demands of the transformers in the nearby sub-stations during emergencies/shutdown.

## Procurement of wind energy

### *System for procurement of wind energy*

**2.2.11** TANGEDCO accords approval for establishment of WEGs after collection of Infrastructure Development Charges (IDC), [56] as fixed from time to time. It also levies annual Operation and Maintenance (O&M) charges on the WEGs for maintenance of the transformers, transmission lines and sub-stations connected to the wind mills. After erection of the WEGs, TANGEDCO accords temporary connectivity to them for testing. Permanent connectivity to WEGs are given after ascertaining the capacity of the sub-stations to which they are to be connected. The deficiencies noticed in the linking of the WEGs to the grid are discussed below:

### *Continued temporary connectivity of WEGs resulting in loss of generation*

**2.2.12** As per TANGEDCO's instructions (September 2011), temporary tie-ups of WEGs would be given only for testing purposes. Permanent tie-ups would be given later, depending on the availability of evacuation facility. Audit verification of WEG services effected under temporary connectivity revealed that WEGs with connected load of 894.20 MW under Udumalpet circle and 328.80 MW under Tirunelveli circle were under temporary connectivity, for periods ranging from one month to five years, due to delay on the part of TANGEDCO in commissioning of lines and sub-stations. TNERC, taking (July 2015) exception to the practice of temporary connectivity, stated that it was the responsibility of TANGEDCO to maintain the network and purchase/evacuate the generated power. A test check in audit of 62 WEGs (totalling 43.28 MW) in Tirunelveli circle, which were under temporary connectivity, revealed that wind generation equivalent to 25 MU (in 56 WEGs) was lost during the period when the WEGs were switched off.

During the Exit Conference, the Company assured that it would review the status of temporary connectivity of WEGs.

### *Non-collection of charges in respect of WEGs connected to TANGEDCO sub-stations*

**2.2.13** Audit scrutiny of the records relating to collection of IDC and O&M charges revealed the following:

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[56] ₹ 25.75 lakh per MW upto June 2005 and ₹ 28.75 lakh per MW upto November 2010 and ₹ 30.00 lakh thereafter.

- Though the rate of IDC was enhanced from ₹ 25.75 lakh per MW to ₹ 28.75 lakh per MW in July 2005, TANGEDCO collected IDC at the pre-revised rates between August 2005 and November 2010. The differential IDC to be collected with interest in respect of eight circles[57] worked out to ₹ 119.83 crore, out of which only ₹ 32.24 crore had been collected as of March 2015.
- Similarly, annual O&M charges of ₹ 1.60 lakh per MW were required to be collected from the generators. Audit noticed that TANGEDCO had not raised invoices for O&M charges amounting to ₹ 44.18 crore. After the omission was pointed out by Audit, an amount of ₹ 3.98 crore was collected. As of March 2015, O&M charges of ₹ 40.20 crore remained uncollected.

The Government replied that collection of differential IDC was in progress and the balance of O&M charges would be collected under intimation to Audit.

***Decline in procurement***

**2.2.14** TNERC had issued the 'Power Procurement from New and Renewable Sources of Energy Regulations 2008,' making it mandatory for TANGEDCO to procure a minimum quantity of nine *per cent* of its annual energy requirement from renewable energy sources. As wind energy accounted for more than 10 *per cent* of its annual energy requirement, TANGEDCO had been meeting this target. For procurement of wind energy by TANGEDCO, TNERC had issued separate wind tariff orders (in March 2009 and July 2012) fixing the procurement price. Scrutiny by Audit of the system in place in TANGEDCO for procurement of wind energy revealed the following:

**2.2.15** TANGEDCO, while submitting its tariff petition to TNERC, projected the following quantum of wind energy purchase from the private wind mills for the years 2010-11 to 2014-15. Actual purchase of wind energy against the projected and generated quantity is also indicated below:

**Table-2.2.4**

**Actual wind energy purchases by TANGEDCO**

| Year | Total Generation by private windmills (MU) | Projected purchase (MU) | Actual purchase (MU) | Percentage of purchase compared to generation | Percentage of purchase compared to projection |
|---|---|---|---|---|---|
| 2010-11 | 8,707 | 8,452 | 5,251 | 60.30 | 62.13 |
| 2011-12 | 9,751 | 8,152 | 5,711 | 58.57 | 70.06 |
| 2012-13 | 12,936 | 8,152 | 7,474 | 57.78 | 91.68 |
| 2013-14 | 10,918 | 5,320 | 5,110 | 46.80 | 96.05 |
| 2014-15 | 10,140 | 5,586 | 3,963 | 39.08 | 70.95 |

**(Source- TANGEDCO)**

57 Coimbatore (South), Dindigul, Kanyakumari, Tiruppur, Theni, Tirunelveli, Tuticorin and Udumalpet.

While the quantity of wind energy generated by the wind mills continuously increased over the years, actual purchase of wind energy by TANGEDCO declined from 60.30 to 39.08 *per cent* of the total energy generation during the corresponding periods. Though TANGEDCO achieved more than 90 *per cent* of its purchase projections during 2012-13 and 2013-14, there was shortfall in achievement of the projections during the three years 2010-11, 2011-12 and 2014-15. One of the major reasons for decline in procurement was the continued backlog[58] in making payments for energy supplied to TANGEDCO due to financial constraints. Consequently, many of the wind energy generators opted for direct sale to consumers through wheeling arrangements of TANGEDCO. Due to shifting of WEGs from sale to wheeling, TANGEDCO suffered a minimum differential loss of ₹ 2[59] per unit of energy so wheeled. The loss of revenue during the period 2010-15 in respect of 173 WEGs worked out to ₹ 60.59 crore.

The Government, in its reply, admitted that payments to wind energy developers were delayed due to its financial position, which resulted in their switching over from sale to TANGEDCO to third party consumers.

***Avoidable extra expenditure on backing down of wind energy***

**2.2.16** Because of the constraints in transmission system and to maintain the frequency within the bandwidth[60], as per the Indian Grid Code, TANGEDCO had to back down wind energy. The quantum of wind energy backed down (which would otherwise be available to TANGEDCO for procurement) was 8,801 MU during 2010-2015. Detailed analysis of backing down of power by Audit revealed that:

- TANGEDCO purchased 800 MU of power through six short term power purchase agreements during the period from May to September 2014, which coincided directly with the wind season in which wind energy equivalent to 3,000 MU was backed down. It was further observed that variation in the quantum of purchase (either increase or decrease) in these agreements was approved by TANGEDCO at short notice and TANTRANSCO was also able to re-schedule the revised quantum on day-ahead basis. Under the circumstances, the backing down of low cost wind power on the grounds of grid conditions was not justified. Considering the fact that a difference of atleast ₹ 1.99 per unit existed between the short term power purchase rate (₹ 5.50) and the maximum wind energy purchase rate (₹ 3.51), the backing down led to an additional power purchase expenditure of ₹ 159.20 crore for the 800 MU alone.

The Government replied that even during high wind season, there would be drastic intra-day variations in wind generation. Hence, infirm wind power should not be compared with the base load, which is provided under short term purchase. The reply is not justifiable as variation in the quantum of short term

58 The payments accumulated during the five years upto 2014-15 ranged from ₹ 205.35 crore (2010-11) to ₹ 1,098.40 crore (2011-12).

59 Difference between average purchase cost of wind energy (₹3.39 per unit) and average selling rate (₹5.39 per unit) to HT consumers, after allowing transmission and wheeling charges (₹0.11 per unit).

60 Between 49.5 and 50.2 hertz.

power was possible and with sufficient infrastructure in place, TANGEDCO could have avoided backing down of the 800 MU of wind energy.

***Undue benefits to ineligible developers due to delay in effecting name transfer***

2.2.17 As per the conditions prescribed by TANGEDCO in the energy agreements, the developers are required to obtain consent of TANGEDCO for sale, transfer of the WEG to a third party. Further as per the Comprehensive Tariff Orders for wind energy issued by TNERC from time to time, cross-subsidy[61] charges were leviable in respect of third-party sales, but were exempt in respect of captive consumers. Audit scrutiny revealed that in respect of 38 out of 75 name transfers in Tirunelveli and Tuticorin Distribution Circles, there were delays ranging from one to 37 months[62] in registering application (after considering one month time for registration of application by TANGEDCO) for approval of name transfer. Due to such delays, the circles released payments for purchase of wind energy to the initial owners, who had already transferred ownership. Further, the transferor continued to be exempt from payment of cross-subsidy charges during the period of belated application, even though the ownership of the windmills was already transferred. Undue benefit thus, extended to 11 WEGs, worked out by audit amounted to ₹ 3.67 crore, besides loss of revenue to TANGEDCO by way of non-collection of cross-subsidy charges amounting to ₹ 26.07 lakh.

The Government replied that delay in name transfer could be attributed to wanting documents. The fact, however, remains that in the absence of an enabling clause in the agreements providing time frame for registration of name transfers, the circles released payments for purchase of wind energy to the initial owners, who had already transferred the ownership.

***Payment without verification of quantum of wind energy***

2.2.18 As per the Energy Purchase Agreements (EPAs)/Energy Wheeling Agreements (EWAs) entered into with wind energy generators, TANGEDCO was to provide check meters of the same specification as the main meters in the WEGs. Whenever the main meters were found to be defective or had stopped, the readings as per the check meters could be cross verified for the purpose of billing. In 562 out of 11,543 existing WEGs, physically verified by Audit, TANGEDCO did not install check meters in any of these services. Due to this failure, energy generation accounted for payments remained un-reconciled leading to possible over payment for energy not generated. Illustrative cases of overpayment, due to non-availability of check meters, noticed by Audit, are discussed below:

- WEG No.1627 was not running from December 2011 to March 2012 and the meter recorded NIL generation. However, energy generation was noted for subsequent periods in the meter card based on unverified data and TANGEDCO continued to make payments totalling ₹ 63.89 lakh for 2.32 MU (April 2012 to September 2013). Subsequent examination by

61 Cross-subsidy is payable by third party consumers of wind energy at 50 *per cent* of the normal rates chargeable.

62 1-10 months (21 cases), 11-20 months (8 cases), 21-30 months (5 cases) and 31 to 37 months (4 cases).

TANGEDCO revealed that there was no display in the meter as it had failed in March 2012 itself. The final reading of the meter was the same as recorded in March 2012 and therefore, the subsequent recordings entered in the meter card were not authentic. After comparison of generation of a similar WEG, the circle arrived at an excess claim for generation amounting to ₹ 12.72 lakh. Though this amount was recovered, there was no other evidence to vouchsafe the payment for the balance amount of ₹ 51.67 lakh.

- WEGs, connected to a particular feeder and having the same make/capacity, would record similar generation and the capacity utilisation factor[63] (CUF) between the WEGs would not vary much. Audit observed abnormal variation in generation in certain WEGs as compared to other WEGs in the same feeder with same capacity and make. The abnormal variation in generation, where there was difference in excess of 20 *per cent* verified by audit, implied possible excess payment/adjustment to an extent of ₹ 3.30 crore. The abnormal variation in the recorded generation was not verified by TANGEDCO.

## Execution of transmission schemes for wind energy

### *Delay in execution of sub-stations and transmission lines*

**2.2.19** For evacuating the entire wind energy generated to other parts of the State and to accommodate future capacity additions, TANTRANSCO establishes 400 KV sub-stations and associated line networks. Scrutiny of records relating to execution of these works revealed the following:

- TANTRANSCO planned (March 2008), establishment of 400 KV sub-stations and associated line networks between Kayathar (in the Southern part of the State) and Ottiyambakkam, near Chennai. Accordingly, work orders for construction of the Kayathar sub-station and the allied line works were issued between March 2012 and February 2013. As a further part of the network, a new 400 KV corridor passing through Theni and Udumalpet district upto the Power Grid Corporation of India Limited (PGCIL's) 765 KV sub-station at Salem was also proposed (March 2011) under Public Private Partnership (PPP) mode, to be completed by 2013-14. A consultancy contract for advising TANTRANSCO on the commercial feasibility and financial viability of the project, to be executed under PPP mode, was also awarded (January 2012). Subsequently, the proposal for taking the work under PPP mode was given up (November 2012), considering time consuming procedures like approvals from TNERC as well as GOI and short listing of project developers *etc.* It was decided (November 2012) to execute the work under Engineering, Procurement and Construction (EPC) route, to enable completion of the works by the end of 2014-15. Work orders were awarded for construction of four sub-stations and allied line works between August 2013 and July 2014. Audit observed in this regard that though the PPP mode was given up, the

[63] Capacity utilisation factor of a wind turbine is a function of wind velocity, air density, mechanical efficiency and age of the machine, height of the hub and length of the blade and is the weighted average of the assessed generation of each machine.

consultancy contract, which was mainly for advising TANTRANSCO on modalities of executing the project under PPP mode was not rescinded after taking into account the revised decision to execute the project under EPC mode. An expenditure of ₹ 84.93 lakh was incurred (March 2014) on the consultant's report, which was not put to use, rendering the expenditure infructuous.

The Government replied that the payment given to the consultant for studying 400 KV level transmission works cannot be treated as waste as TANTRANSCO had experience in 230 KV level only. The reply is not convincing as the sub-station contracts were finally awarded on EPC mode, whereas the consultancy was for advising the financial and commercial implications of executing the project under PPP mode. Hence, the payment for consultancy, which was envisaged for execution under PPP mode, had become infructuous.

- Further, TANTRANSCO planned execution of five transmission works for completion by 2013-14. Audit scrutiny of these project works revealed that the works were under execution (December 2015) as indicated in the table below. The intended benefits of the wind corridor work, *viz.*, maximum evacuation of the wind energy generated, thus remained unrealised.

**Table-2.2.5**

**Status of 400 KV sub-stations and transmission lines for wind evacuation**

| Sl No. | Name of the work<br>Date of award<br>Awarded cost | Expected date of completion as per contract | Anticipated /actual date of completion | Remarks |
|---|---|---|---|---|
| 1. | Kayathar sub-station and allied line works<br>Oct 2012-Feb 2014<br>₹ 513.16 crore | May 2013-Dec 2013 | Jul-Sep 2014 | Completed after a delay of one year due to non-completion of related work at the Karaikudi PGCIL sub-station. Even after completion, the earmarked WEGs were not connected to the sub-station fully, resulting in under utilisation of the sub-station by 50 *per cent*. |
| 2. | Thappagundu sub-station<br>Sep 2013<br>₹ 125.59 crore | Dec 2014 | Mar 2016 | The contractor commenced the work with a delay of four months after taking over the site (September 2013). The civil works were stopped midway (February 2015) and were still incomplete. |
| 3. | Anaikadavu sub-station<br>Aug 2013<br>₹156.19 crore | Dec 2014 | Mar 2016 | Physical progress of the work was only 20 *per cent* due to slow progress of the work by the contractor. |
| 4. | Rasipalayam sub-station and allied | Nov 2015 | Apr 2016 | There was delay of eight months in issuing the work order to the |

| Sl No. | Name of the work / Date of award / Awarded cost | Expected date of completion as per contract | Anticipated /actual date of completion | Remarks |
|---|---|---|---|---|
| | line works<br>Aug 2013<br>₹ 417.91 crore | Mar 2015 | | contractor. While the site for line works was handed over in October 2013, the site for the sub-station was handed over only in May 2014. Due to non-synchronisation of sub-station and line works, the line works were on the verge of completion as of December 2015, whereas the sub-station works were only at the initial stage. |
| 5. | Kanarpatti sub-station and allied line works<br>Mar 2014 –Jul 2014<br>₹ 228.06 crore | June 2015 | Mar 2016 | The proposal for taking up of the sub-station work was originally approved in June 2007 at an estimated cost of ₹ 143.35 crore but was taken up for execution only in July 2013 at a revised cost of ₹ 228.06 crore, resulting in cost escalation of ₹ 84.71 crore. Civil works were still under progress as of December 2015. |

**(Source- TANTRANSCO)**

During the Exit Conference, TANTRANSCO admitted that there were delays in execution of transmission schemes. It also stated that the contractors were being pursued to expedite the completion of the ongoing works.

## Wheeling of wind energy

**2.2.20** Wind energy generators had the option of entering into Energy Wheeling Agreements (EWAs) with TANGEDCO for wheeling the power generated for captive use or third party sale.

Audit scrutiny of the files, relating to collection of various charges by TANGEDCO from the generators for wheeling of the generated power, revealed short collection of charges as detailed below:

***Non-recovery of transmission charges and compensation for line loss***

**2.2.21** As per instructions issued (September 2012) by TANGEDCO, the Generation-End distribution circles have to collect transmission charges from the open access consumers at the rates specified in the TNERC's tariff orders. From the records verified by Audit in Udumalpet, Theni and Coimbatore (South) circles, it was observed that the circles started the recovery of transmission charges only from July 2013 onwards as against the effective date of August 2012, resulting in non-recovery of transmission charges for the intervening period amounting to ₹ 124.19 crore. Subsequent to being pointed out by audit, an amount of ₹ 1.54 crore was collected by TANGEDCO.

Similarly, the Wheeling-End circles have to deduct transmission and distribution losses based on the injected and drawal voltages. Verification of

62 out of 95 service connections in Virudhunagar circle revealed that the circle did not work out the transmission and distribution loss and deduct it from the net export units of wind energy, resulting in excess adjustment/banking and consequent lesser billing amounting to ₹ 5.42 crore.

The Government replied that instructions had been issued to the field for recovery of the above charges pointed out by Audit.

*Non-levy of penalty for reactive power*

2.2.22 As the reactive power creates low voltage problems in the wind pocket areas, TNERC imposed (May 2006) penalty at 25 paise per KVArh[64] for WEGs, which draw reactive power upto 10 *per cent* of active power generated/exported and 50 paise per KVArh for those, which draw more than 10 *per cent*. In the billing software used by TANGEDCO, only the data on KVArh recorded on the import mode of the meters are fed into, whereas KVArh recorded on the export mode is not accounted. Audit test checked records relating to 2013-14 and 2014-15 in three out of 60 sub-stations in Tirunelveli region and observed that penal charges to the extent of ₹ 2.60 crore were not levied due to non-availability of proper billing software.

It was replied (December 2015) that it was not necessary to record the reactive power in the export mode. The reply is not acceptable because TANTRANSCO itself had pointed out (September 2012) huge revenue loss to TANGEDCO on account of the non-levy of reactive power charges in the export mode and had suggested suitable modification of the billing software to plug the loophole.

*Banking of wind energy*

2.2.23 As per TNERC's Tariff orders on wind energy, the captive generating plants (CGPs) in Tamil Nadu are entitled for an additional facility of banking of wind energy. Under these arrangements, the wind energy not adjusted under the captive mode is allowed to be carried forward on monthly basis from April to March of the respective financial years. In States like Andhra Pradesh, Gujarat and Rajasthan, banking was not allowed or restrictions were placed on use of banked energy. In Tamil Nadu, there is no restriction in the use of banked energy. As per Audit's estimation, TANGEDCO had incurred an additional expenditure of ₹ 470.18 crore during the period 2010-15 due to allowance of banking facility in the State.

The Government replied that TNERC is the final authority to decide about the policy on banking of wind energy. Audit observed that if the Government had a policy on wind energy, including banking of wind energy, the same would have influenced TNERC's decision on banking of wind energy.

Audit scrutiny of the system of banking of wind energy in TANGEDCO revealed the following deficiencies:

64 Reactive power, *i.e.*, KVArh, is the difference between working power (active power measured in KW) and total power consumed (apparent power measured in KVA).

***Excess payment for banked wind energy***

**2.2.24** As per TANGEDCO's instructions (September 2012), unutilised banked energy as on 31 March every year may be encashed at the rate of 75 *per cent* of the relevant tariff rate. When restriction and control measures are in force, the unutilised energy at the end of the banking period is to be encashed at 100 *per cent* of the relevant tariff. Restriction and control measures are applicable only on the TANGEDCO component of base demand and energy quota would be fixed accordingly. In view of the above, there was no restriction for the consumers to utilise the captive power upto the sanctioned demand. The consumers were, therefore, not eligible for encashment of 100 *per cent* of the banked energy.

Audit scrutiny of the payments made on encashment of unutilised banked energy revealed that the circles made payment to the consumers in this category of cases at 100 *per cent* instead of 75 *per cent* of the applicable tariff, resulting in excess payment of ₹ 31.86 crore.

The Government replied that the inability of the consumer to draw the entire quantum of banked energy was on account of grid constraints. The reply is not convincing because as per TANGEDCO's working arrangements, the quantum of energy consumed from the captive and third party sources was first to be adjusted from the maximum demand recorded in the consumers' meters and the balance consumption was to be treated as a supply from TANGEDCO. Therefore, unutilised portion of the banked energy was not on account of grid constraints.

***Carry forward of banked energy in violation of orders***

**2.2.25** As per TNERC's Tariff Order (July 2012), wind energy generated during the respective months should be adjusted against consumption of the same month and balance, if any, should be reckoned as banked energy. Audit scrutiny revealed that the available banked units were not fully drawn and utilised in the current month in four circles and the payment of unutilised banked energy without adjusting consumption kept at the Generation End was irregular. As a result, banked energy was carried forward to subsequent months in violation of the orders resulting in undue benefit of ₹ 7.29 crore in 11 cases, due to not imposing penalty for exceeding the quota during the restriction and control period.

The Government replied that instructions have been issued to the circles to examine the correctness of the payments.

***Irregular adjustment of banked energy during power holiday period***

**2.2.26** While implementing the restriction and control measures from November 2008, the concept of 'Optimum Demand' was introduced by TANGEDCO in respect of continuous process industries. These industries could go for optimum demand (*i.e.*, minimum demand required to operate the industry beneficially) with restricted number of days. The balance days in the months should be power holidays, during which period, consumers were permitted to utilise only TANGEDCO power upto 10 *per cent* of the fixed quota plus one *per cent* of the transformer loss. In the event of consumption in excess of the quota fixed, penalty would be imposed.

In light of the above instructions, audit checked the adjustment of wind energy against power holiday consumption in three distribution circles, which revealed that wind energy was utilised by five consumers during the periods of power holiday resulting in short-billing on this account to the extent of ₹ 3.78 crore. The excess penalty, leviable on this account, worked out to ₹ 14.31 crore.

The Government replied that instructions had been issued to all the Generation End circles to maintain the banked energy at their end to avoid the above irregularities.

***Operation of Group Captive Plant mechanism***

**2.2.27** Section 9 of the Electricity Act, 2003 allowed setting up of Captive Generating Plants. The owners of captive plants were given the right to open access for carrying electricity from the plant to the destination of its use. For this purpose, the captive user (or collectively as a Group) should hold not less than 26 *per cent* of the ownership in the Group Captive Plant (GCP) in aggregate and should consume not less than 51 *per cent* of the aggregate electricity generated in the plant determined on an annual basis in proportion to their shares in ownership with a variation not exceeding ten *per cent*. If the captive user did not fulfil either of the two conditions, the entire energy consumed would be treated as sale on open access and would be charged at the stipulated rates.

TANGEDCO issued periodic instructions (May 2010, September 2012 and July 2014) to the circles for verification of GCP status and in the event of a generator losing captive status in any financial year (*i.e.*, not fulfilling the condition of 26 *per cent* ownership or 51 *per cent* captive consumption), it was stipulated that the entire consumption by the captive user would be treated as third party sale and cross subsidy charges at the rate of 50 *per cent* would be leviable.

Audit's scrutiny of implementation of group captive mechanism in TANGEDCO in 11 circles[65] revealed that in all the circles, the data regarding actual consumption adjusted against wind energy wheeled for captive use and details regarding changes in shareholding pattern were not being verified. As a result, many of the group captive consumers did not fulfil the two required conditions and therefore, were not entitled for the benefits. Independent audit verification of the GCP status of 28 such consumers in 11 circles revealed that these consumers did not fulfil the prescribed conditions and hence cross subsidy charges amounting to ₹ 122.20 crore (**Annexure-10**) were recoverable from them. Two of these cases are illustrated below:

***Non-fulfillment of 26 per cent equity norm***

**2.2.28** M/s Ushdev Engitech Limited (Ushdev) had a pan-India wind energy capacity of 58.2 MW, out of which the capacity in Tamilnadu was 28.05 MW.

[65] Coimbatore (Metro), Chengleput, Erode, Gobi, Kanyakumari, Sivaganga, Theni, Tiruppur, Tuticorin, Udumalpet, Virudhunagar

The total paid up equity capital in Ushdev was ₹65.31 crore consisting of ₹ 64.98 crore- class A shares and ₹ 33 lakh –class B shares. Four consumers holding class B shares worth ₹ 9.90 lakh, out of the total ₹ 33 lakh (30 *per cent),* were deemed as captive consumers and allotted their share of energy from the 28.05 MW capacity windmills in Tamil Nadu. As the equity investment of ₹ 65.31 crore in Ushdev was for a capacity of 58.2 MW, the proportionate investment for 28.05 MW worked out to ₹ 31.48 crore and therefore, the investment of ₹ 9.90 lakh by the four captive consumers was only 0.31 *per cent*, which was below the required 26 *per cent*. Hence, the entire consumption by the four consumers should be deemed as 'third party sale' and charged accordingly.

***Non-adherence to proportionate consumption***

**2.2.29** TANGEDCO executed EWA with M/s Beta Wind Farm (Beta), a Special Purpose Vehicle of an association of persons, comprising of 25 captive consumers holding 26 *per cent* and one non-captive consumer holding 74 *per cent* ownership in Beta. The company adjusted a total consumption of 20.01 MU within the 25 group captive consumers for the year 2012-13. The total annual consumption was apportioned in proportion to the ownership. Audit observed that out of the 25 captive consumers, only eight consumers fulfilled the norms of consumption proportionate to holding of shares. Similarly, during 2013-14, out of 37 captive users, only 18 fulfilled the proportionate consumption norm. In view of non-fulfilment of the requirement for proportionate consumption according to share holding, the entire consumption was to be treated as 'third party sale' and cross subsidy surcharge levied.

The Government replied that a third party audit agency had been appointed for verification of norms of captive generation and to monitor the circles complying with the instructions of TANGEDCO.

The Company, further, in the Exit Conference, stated that the system of verification of status of captive consumers would be strengthened by deploying dedicated teams.

**Monitoring and internal control**

**2.2.30** Audit examination of the monitoring and internal control system, existing in TANGEDCO and TANTRANSCO with reference to wind energy procurement and execution of transmission schemes, revealed the following:

- As per the revised guidelines for wind power projects issued (June 1996) by the GOI, the State utility would carry out regular inspection of wind farms by outside agencies to ensure that generation is optimal. Scrutiny in audit revealed that TANGEDCO did not carry out inspections as required. Further scrutiny of 51 WEGs in four circles revealed that the WEGs recorded 'NIL' generation continuously for three years upto 2014-15. Further, in 4,182 out of 6,328 WEGs in Tirunelveli circle, the average capacity utilisation factor during the peak wind season of May-September 2014 ranged between 'zero' to '73' *per cent*. Though the wind energy developers agreed for imposing penalty for low performance of their plants and for disconnection, no action was taken to watch the performance of the WEGs and impose penalty for poor performance.

- Though TANGEDCO was the nodal agency in the State for development of wind energy, it did not maintain a centralised data base relating to the windmills, especially relating to repowering, claiming of incentives like accelerated depreciation, generation based incentives, permission accorded for change of status of WEGs from 'Sale to TANGEDCO' category to 'Captive Use or Sale to Third Party'. Consequently, their impact on either cost or revenue could not be verified. Further, there was no system for reconciliation between the Generation End and Wheeling End circles with reference to adjustment of units wheeled and recovery of various charges.
- To ensure proper energy accounting and online monitoring of generation data, installation of Availability Based Tariff (ABT) meters was made compulsory in all the WEGs from January 2012. TANGEDCO had not ensured compliance of this stipulation as only 6,031 out of 11,543 WEGs had been provided with ABT meters as of March 2015.
- In order to check the meter condition, correctness of the wind generation, bill claimed and generation sent for wheeling adjustment, it was decided (January 2011) by TANGEDCO Headquarters that a mass raid would be conducted in the wind farm feeders by each Generation-End circle. Based on these instructions, special teams were deputed (May 2012) to take meter readings at the sub-station ends and to compare the same with the generation statements to find out revenue loss, if any. Audit noted that even three years after the mass raid, follow-up action had not been taken (December 2015).

The Government stated that the report on mass raid would be studied for appraisal.

- Though the actual progress of implementation of the transmission schemes, *vis-a-vis* its scheduled completion, was discussed in the review meetings of TANGEDCO and TANTRANSCO, the outcome of these reports were not discussed at the Board level.

## Conclusion

The State of Tamil Nadu has been managing shortage of power through short term power purchases and imposition of power cuts and load shedding. On the other hand, the State, which had potential wind energy capacity of 14,152 MW had exploited the potential only upto 7,439 MW (53 *per cent*) as of March 2015. Even the potential wind energy was not procured in full by TANGEDCO due to short fall in availability of adequate transmission facility and backlog in payments for purchase of wind energy. These factors contributed for decline in procurement of wind energy from 5,251 MU in 2010-11 to 3,963 MU in 2014-15 and backing down of wind energy to the extent of 8,801 MU during the above period.

The system for purchase of wind energy was not robust due to delays in approval of name transfers, non-installation of check meters at generation point, *etc*.

The proposals for execution of the network of transmission lines and sub-stations for wind energy to tackle the constraints in evacuation of wind energy were not vigorously pursued by TANTRANSCO. Moreover, avoidable delays in completion of the transmission schemes taken up for execution were also noticed.

Absence of fool-proof system for execution of group captive mechanism and banking of wind energy led to instances of undue benefits to the private wind energy producers.

Thus, the efforts of TANGEDCO/TANTRANSCO for procurement and transmission of wind energy need to be strengthened.

**Recommendations**

The State Government may:

- evolve a policy for procurement and transmission of wind energy;

TANGEDCO may:

- purchase maximum quantity of wind energy generated within the State to avoid procurement of power at a higher rate.
- install robust system of verification of status of group captive users of wind energy and ensure that banking of wind energy is not misused.

TANTRANSCO may:

- expedite the execution of backbone network of wind energy and other transmission schemes already taken up.
- install forecasting mechanism for wind energy to minimise backing down.

# CHAPTER-III

# CHAPTER - III

## Performance Audit relating to Statutory Corporation

## 3 Construction, operation and maintenance of storage facilities by Tamil Nadu Warehousing Corporation

### Executive Summary

*Tamil Nadu Warehousing Corporation (TNWC) was established in May 1958 under the Agricultural Produce (Development and Warehousing) Corporations Act, 1956, which was subsequently replaced by the Warehousing Corporations Act, 1962. The main objectives of TNWC are to provide scientific storage facilities for agricultural and notified commodities and to help depositors in obtaining credit against stored commodities. A Performance Audit of warehousing activities of TNWC was conducted between April and July 2015 and important audit findings noticed during audit are as under:*

*TNWC did not undertake any assessment of the future storage requirements of the State and have a systematic plan for construction of godowns.*

*There was no co-ordination among various Government and co-operative agencies involved in warehousing activity in the State.*

*There were delays in construction of godowns resulting in loss of guaranteed business and TNWC had not invoked penal provisions in agreements for slow progress of work.*

*TNWC added 17 godowns with storage capacity of 71,200 MT during the period 2010-15. However, utilisation of its own storage capacity by depositors was below the norm of 90 per cent fixed by Government of Tamil Nadu. It came down from 86 per cent in 2012-13 to 74 per cent in 2014-15.*

*Utilisation of warehousing facility by farmers was less than one per cent indicating the need for creation of awareness among farmers.*

*There were substantial arrears of storage charges (₹15.86 crore).*

*Only 36 out of 56 warehouses were registered under the Warehousing (Development and Regulation) Act, 2007 for part capacity and insurance coverage was provided only for the quantity of stock held in those partly registered warehouses.*

*There were deficiencies in provision of scientific storage, safety measures and adequate infrastructure in warehouses.*

*Adequate funds were not provided for maintenance of warehouse buildings. Warehouses were operated with 47 to 63 per cent vacancies in various categories of staff.*

## Introduction

**3.1** Tamil Nadu Warehousing Corporation (TNWC) was established (May 1958) with the objectives of providing scientific storage facilities for agricultural and notified commodities and helping depositors in obtaining credit against stored commodities under the Agricultural Produce (Development and Warehousing) Corporations Act, 1956, which was replaced by the Warehousing Corporations Act, 1962 (Act). The Central Warehousing Corporation (CWC) and the Government of Tamil Nadu (GoTN) have 50:50 share capital in TNWC. As on 31 March 2015, TNWC had 242 godowns at 58 warehouses (WHs) (56 owned and two hired) with a storage capacity of 6.79 lakh metric tonnes (MT). Out of the total warehousing capacity available in the State in public and co-operative sectors, the market share of TNWC was 16 *per cent*. TNWC earned profits continuously and accumulated profit (reserves and surplus) at the end of March 2015 stood at ₹ 94.55 crore. Financial position of TNWC and its working results for the period 2010-15 are given in **Annexure-11**.

## Organisational setup

**3.2** TNWC is under the administrative control of Co-operation, Food and Consumer Protection Department of GoTN. Management of TNWC is vested with a Board of Directors (BoD) headed by a Chairman, who is appointed by GoTN. The Managing Director (MD) of TNWC is assisted by a General Manager, who is assisted by a Financial Advisor and Chief Accounts Officer and five Assistant General Managers[66] and a Construction Engineer. Field activities of TNWC are managed by seven Senior Regional Managers/Regional Managers[67] (SRM/RM), each in-charge of one region and the WHs are managed by Warehouse Managers (WM).

## Audit objectives

**3.3** Audit objectives were to ascertain whether:

- TNWC assessed the future storage requirements of the State and had a systematic plan for construction of godowns;
- TNWC put its warehouses to optimum use, created awareness among farmers about scientific storage of commodities and provided negotiable warehouse receipts;
- warehouses were managed efficiently by providing scientific storage facility with adequate manpower and carrying out periodical repairs to warehouse buildings; and
- adequate monitoring and internal control systems were in place and effective.

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66 Finance, Administration, Business, Technical and Flying squad.

67 Coimbatore, Cuddalore, Kancheepuram, Madurai, Salem, Tirunelveli and Trichy.

## Audit criteria

**3.4** The Audit criteria adopted for the Performance Audit were:

- provisions of the Warehousing Corporations Act, 1962 and the Warehousing (Development and Regulation) Act, 2007.
- provisions of the Tamil Nadu Transparency in Tenders Act, 1998, the Tamil Nadu Transparency in Tenders Rules, 2000 and the Tamil Nadu Warehouses Rules, 1953.
- Manuals, guidelines, instructions, directions of GoTN / TNWC and the Warehousing Development and Regulatory Authority(WDRA), agenda papers and minutes of Board meetings and agreements for construction of godowns and other works.

## Scope and methodology of Audit

**3.5** Working of TNWC was last reviewed and audit findings were included in the Audit Report of the Comptroller and Auditor General of India (Commercial), GoTN for the year ended 31 March 2000. The Committee on Public Undertakings (COPU) in its Report (852$^{nd}$ Report) presented to the Assembly in August 2015, while calling for additional information or reports on most of the paragraphs, gave specific recommendations/directions on revision of storage charges and holding of Board meetings. The present Performance Audit, conducted between April and July 2015, covered warehousing activities of TNWC for the period 2010-15. Records of the Department at the Secretariat, TNWC Head Office (HO), four[68] out of seven Regional Offices (RO) and 15[69] out of 58 Warehouses (WHs) selected by adopting random sampling method were test checked.

Audit scope, methodology and objectives were explained to the Principal Secretary to Government, Co-operation, Food and Consumer Protection Department in an Entry Conference held in April 2015. Audit methodology included examination of records, documenting and analysing evidence collected from HO and field units of TNWC, examination of agenda and minutes of BoD meetings, raising audit enquires and interaction with management. An Exit Conference with the Principal Secretary was held in January 2016 wherein the audit findings were discussed. The views of Government on audit findings and formal reply, wherever received, have been taken into consideration while finalising the audit findings.

## Acknowledgement

Audit acknowledges the co-operation and assistance extended by the staff and the management of TNWC in conducting this Performance Audit.

68 Kancheepuram, Salem, Tirunelveli and Trichy.

69 Ambasamudram, Arakkonam, Aranthangi, Dharmapuri, Katpadi, Nagapattinam, Namakkal, Salem Town, Tenkasi, Tirunelveli, Tiruvallur, Tiruvarur, Trichy, Tuticorin Town and Vellore.

## Audit findings

## 3.6 Augmentation of storage capacity

### *Plan for augmentation of storage capacity*

**3.6.1** Audit noticed that TNWC did not undertake any assessment of the future storage requirements of the State and have a systematic plan for construction of godowns. Even though the BoD constituted (December 1990) a Committee[70] to examine issues relating to business potential, suitability of site for construction of godowns and cost involved and to recommend in each case before taking up construction, the Committee did not function during the period 2010-15. In the absence of a plan for construction of new godowns and non-functioning of the Committee, TNWC took up construction of godowns as and when announced by GoTN.

Government stated (December 2015) that TNWC, generally, took up construction of godowns whenever need for storage facilities arose, after conducting market study. However, TNWC constructed godowns during 2010-15 based on Government announcements, which were not based on any proposal of TNWC. TNWC conducted market studies and started identifying lands for the godowns only after the announcements and no godown was taken up for construction *suo motu* by TNWC by conducting proper feasibility studies.

### *State Level Co-ordination Committee*

**3.6.2** To rationalise and integrate construction programmes of State level agencies and to co-ordinate the activities of TNWC and Tamil Nadu Civil Supplies Corporation (TNCSC), GoTN constituted (February 1971) a State Level Co-ordination Committee (SLCC) to make recommendations regarding annual construction plan and other aspects of storage. GoTN also constituted (1988) a Committee[71] to examine the viability and usefulness of Public Sector enterprises and autonomous bodies of GoTN. The Committee recommended that there should be co-ordination between TNCSC and TNWC so as to avoid duplication of activities and that TNCSC need not construct operational godowns and it could hire private or FCI godowns. GoTN, while accepting the former recommendation, stated that the latter would be considered by the SLCC and a decision taken.

Audit noticed that there was no co-ordination between TNWC and TNCSC in construction of godowns to avoid duplication of activities. The SLCC meeting was last held in July 2009 and thereafter, it was not convened. Due to non-functioning of SLCC, the issue of hiring of godowns, instead of construction of own godowns, by TNCSC was not decided. During the period 2010-15, TNCSC constructed 59 godowns with a total capacity of 0.79 lakh MT and as

70 Consisting MD, TNWC, Deputy Secretary to Finance Department, Joint MD of TNCSC Ltd., Deputy Secretary to the Administrative Department and the Regional Manager of CWC, Chennai.

71 K.V. Ramanathan committee.

a result, the storage space hired by TNCSC from TNWC decreased by 36 *per cent* from 1.89 lakh MT (2012-13) to 1.20 lakh MT (2014-15). Similarly, in 19 TNWC warehouse locations, Co-operative Societies constructed 40 godowns, each with a capacity of 1,000 MT and above.

MD, TNWC, being the Member Secretary of the SLCC, had also not initiated any action to convene the SLCC meeting. TNWC, while admitting (June 2015) that construction of godowns by TNCSC and other organisations hampered their business activities, stated that a proposal for reconstitution of the SLCC has been submitted to Government. During the Exit Conference, the Principal Secretary stated (January 2016) that convening of SLCC was under process.

***Non-diversification of business***

**3.6.3** To diversify TNWC's business activities and to widen the scope of warehouse business, BoD instructed (October 2000) TNWC to establish specialised warehouses for storing drugs, garments *etc*. However, TNWC had not taken any initiative to establish specialised warehouses as of June 2015.

In reply, Government, without giving specific reasons for non-compliance of BoD's instructions by TNWC, stated (December 2015) that in case of downward trend in the occupancy rate of godowns and poor business in future, TNWC would consider diversification of their business activities. However, TNWC had not diversified their business activities despite the downward trend in occupancy rate from 86 *per cent* in 2012-13 to 74 *per cent* in 2014-15.

## Construction of godowns

### 3.7 *Capacity addition*

**3.7.1** TNWC, which had 225 godowns as on 31 March 2010, added 17 godowns with storage capacity of 0.71 lakh MT at a cost of ₹ 31.48 crore during 2010-15. Details of godowns targeted for construction and completed, with details of capacity are shown in Table 3.1:

**Table 3.1 : Capacity addition during the period 2010-15**

| Year | Targeted | | Created | | Shortfall | |
|---|---|---|---|---|---|---|
| | No. of godowns | Capacity (MT) | No. of godowns | Capacity (MT) | No. of godowns | Capacity (MT) |
| 2010-11 | 13 | 61,800 | 12 | 55,200 | 1 | 6,600 |
| 2011-12 | | Nil | | Nil | | Nil |
| 2012-13 | 10 | 34,000 | 5 | 16,000 | 5 | 18,000 |
| 2013-14 | 25 | 1,25,000 | Nil | Nil | 25 | 1,25,000 |
| 2014-15 | | Nil | | Nil | | Nil |
| **Total** | **48** | **2,20,800** | **17** | **71,200** | **31** | **1,49,600** |

**(Source: Information furnished by TNWC HO)**

- Out of 13 godowns announced by GoTN during the year 2010-11, TNWC completed (February 2011 to November 2014) 12 godowns for a capacity of 55,200 MT (45,000 MT capacity for FCI and 10,200 MT capacity for other users) and one godown proposed at Namakkal was dropped due to non-availability of adequate land.

- Out of 10 new/additional godowns announced during the year 2012-13, TNWC completed (September 2013 to March 2014) five godowns for a capacity of 16,000 MT. Construction of additional godowns at Nagapattinam and Tiruchengode WHs, which were awarded to contractors in December 2014 and February 2015, were in progress (August 2015). For construction of godown at Tirupattur, TNWC identified land in May 2015 only and it did not acquire (July 2015) land for godowns at Nannilam and Valangaiman. Government stated (December 2015), that the land identified for Tirupattur godown was not suitable for construction of godown and that action would be taken to commence works at Nannilam and Valangaiman at the earliest.

- Out of 25 godowns for a capacity of 1.25 lakh MT announced in 2013-14, TNWC proposed to construct 21 godowns for a capacity of 1.05 lakh MT for exclusive utilisation of FCI and four godowns for a capacity of 0.20 lakh MT for other users by availing loan assistance from NABARD. GoTN accorded (December 2013) administrative sanction for construction of the godowns at an estimated cost of ₹ 118.60 crore. However, 10 godowns for a total capacity of 50,000 MT, intended for FCI use, were dropped by FCI due to non-acquisition of land by TNWC and construction of two godowns at Musiri (10,000 MT capacity) were also dropped subsequently in view of poor business viability. Sanction for revised proposal for construction of 13 godowns for a capacity of 65,000 MT, submitted to GoTN was awaited (July 2015). TNWC also could not avail the loan sanctioned for the project by NABARD.

  In reply, Government stated (December 2015) that revised sanction has been obtained (October 2015) from NABARD for construction of 23 godowns during 2015-16, which included the 13 godowns sanctioned earlier and that the project would be completed by March 2018.

Thus, out of 48 godowns to be constructed as per Government announcements, only 17 godowns were constructed during 2010-15. The sanctions for construction of new godowns and subsequent dropping of some godowns indicate that the announcements were made by Government without receiving any proposal from TNWC for construction of godowns after conducting feasibility studies and ascertaining availability of land.

*Delay in construction of godowns*

3.7.2 Under Private Entrepreneurs Guarantee (PEG) Scheme 2008 (Phase I), FCI extended guaranteed utilisation for nine years in respect of godowns constructed by TNWC in their own lands for exclusive utilisation of FCI. TNWC took up (December 2009) construction of nine godowns for a capacity of 45,000 MT in five[72] places. The construction was to be completed within 12 months (December 2010). However, TNWC decided (December 2010) to construct the godowns through its Construction Wing after a delay of one year. There were delays ranging from 27(five cases) to 45(one case) months in preparation of estimates, designs and drawings and tender process due to shortage of technical staff and also on the part of contractors in execution of works. Even though FCI was ready to occupy the godowns immediately on completion and there was guaranteed business for nine years from December 2010, the completed godowns were handed over to FCI between April 2013 and October 2014. The delay resulted in loss of guaranteed warehousing business to TNWC during the period of delay.

During the Exit Conference (January 2016), it was stated that apart from inadequate technical staff, difficulty in acquiring land also caused delay in completion of works. It was stated that action would be initiated to engage specialised construction agencies such as State Public Works Department and Tamil Nadu Police Housing Corporation in future for construction activities.

As per Rule 14(6) of the Transparency in Tenders Rules, 2000, tender and contract documents should include a clause for recovery of liquidated damages from contractors in the event of non-fulfilment of conditions of any or whole of the contract. As per clauses 57.2 and 57.3 of General Conditions of Contract, if a contractor delays commencement of work, neglects or delays the progress of work, penalty not exceeding five *per cent* of the value of the work is to be imposed.

There were delays ranging from 47 (one case) to 554 (one case) days in completion of 17 godowns by the contractors. Despite abnormal delays in completion of works, TNWC sent only routine reminders to contractors instructing them to complete the works and failed to take action against the contractors and impose penalty even though the delays were on the part of contractors. The liquidated damages that should have been recovered from the contractors at five *per cent* of total value of works completed with abnormal delays, works out to ₹ 1.57 crore as given in **Annexure-12**.

In reply, Government stated (December 2015) that requests of contractors for extension of time in view of non-availability of construction material and labour and contractors' other personal reasons were accepted by TNWC and that the delays were unavoidable. The reply is not acceptable as procurement of materials and labour was the responsibility of the contractors and these were not valid reasons for granting extension of time.

***Avoidable expenditure due to delay in finalisation of tenders***

**3.7.3** In response to tenders invited (June 2011) by TNWC for construction of four godowns at Karaikudi (three godowns) and Kovilpatti, two bids were received. TNWC failed to finalise the tender within the validity period (1 September 2011). TNWC invited lowest bidder (L-1) for negotiation of

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72 Aruppukottai, Chinnasalem, Karaikudi, Kovilpatti and Madurantagam.

rates on 7 September 2011, after expiry of the validity period of the tender. Though L-1 stated that the rates after negotiation specified in his letter dated 10 January 2012 would be applicable only up to 31 January 2012, TNWC took 147 days after the validity period of tender for completing the tender process such as negotiation with the contractor for reduction of rates and obtaining approval of the Tender Sub-Committee and finally issued work order on 27 January 2012. L-1 refused to accept the work order, stating that the work order with antedate as 27 January 2012 was received by him on 7 February 2012 *i.e.*, after the extended validity period. TNWC cancelled (March 2012) the work order with forfeiture of the earnest money deposit. In the re-tender, TNWC entrusted (June 2012) the works to other agencies at higher rates and completed them incurring an extra expenditure of ₹ 35.15 lakh (**Annexure-13**).

In reply, TNWC, without assigning any specific reason, stated (November 2015) that the delay in finalisation of tenders was due to non-availability of adequate technical staff in TNWC and due to unavoidable circumstances.

***Delay in installation of weighbridges***

3.7.4 Installation of lorry weighbridge at the premises of WHs was one of the requirements of FCI under PEG scheme. TNWC proposed (January 2013) to install weighbridges at seven godowns[73] including the four newly constructed godowns under PEG 2008 Scheme (Phase I). As there was no response to tender invited in July 2013, the condition regarding furnishing of bank guarantee for the contract value by all bidders and certain technical specifications regarding the capacity of weighbridges, included in the tender document, were deleted/relaxed based on suggestions of an Expert Committee and tender document revised (June 2014).

Though five firms participated in the re-tender (11 August 2014) only one firm offered the product as specified in the tender document and hence the Tender Sub-Committee suggested to go in for re-tender again after a detailed study on appropriate technical specifications required by TNWC. After finalisation of the third tender, TNWC placed order with L-1 firm on 21 February 2015 for supply and erection of electronic lorry weighbridges at seven WHs for a value of ₹ 1.08 crore with a condition to complete the work within 120 days.

Audit scrutiny revealed the following:

- TNWC failed to assess its requirement and finalise the technical specifications of weighbridge before floating tenders and it modified the specifications and tender conditions twice, which caused abnormal delay of more than two years in the tender process.
- The firm supplied (May 2015) weighbridges at four[74] out of seven WHs and installation of weighbridges in the four locations was in

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73 Arupukkottai, Karaikudi, Kovilpatti, Maduranthagam, Krishnagiri, Thirumangalam and Vellore.

74 Karaikudi, Kovilpatti, Maduranthagam and Vellore.

progress (August 2015). However, TNWC did not invoke the penal provisions in the agreement for the delay in supply and installation.

- Due to non-availability of weighing facility, FCI declined (November 2014) to take over the four new godowns (PEG 2008) under guaranteed business scheme and stored foodgrains on Actual Utilisation Basis (AUB). As a result, TNWC had to incur weighment charges of ₹ 20.62 lakh for the period from April 2013 to March 2015 towards weighments made in private weighbridges for FCI stock. The delay in procurement and installation of weighbridges also resulted in loss of storage revenue of ₹ 1.37 crore on account of utilisation of WHs by FCI on AUB as against Area Basis Reservation (ABR) (**Annexure-14**).

In reply, TNWC stated (July 2015) that the delay was due to non-availability of adequate technical staff for finalising the specifications and that TNWC had to ascertain the technical specifications from various departments before forwarding the proposals to Tender Sub-Committee for approval. However, had TNWC consulted and obtained the specifications in time from CWC/FCI/other State warehousing corporations, which procure and install weighbridges in their godowns, the delay could have been avoided.

## Utilisation of storage capacity

### *3.8 Occupancy of storage space*

**3.8.1** Major clients of TNWC are FCI, TNCSC, Tamil Nadu State Marketing Corporation (TASMAC), Tamil Nadu Text Book Society (TNTBS), Government departments, Fertiliser companies and co-operative institutions. Details of depositor-wise quantity stored and percentage of occupancy of storage space during 2010-15 are given in **Annexure-15.** For capacity utilisation, TNWC was mainly dependent on Government and co-operative agencies and fertiliser companies.

- Utilisation of godowns by farmers was less than one *per cent* of the occupancy, despite the availability of Negotiable Warehouse Receipts (NWRs), against which farmers can get loans from banks/other financial institutions. GoTN announced (July 2014) that TNWC would undertake awareness and training camps to the farmers and supply materials at a cost of ₹ 50 lakh. The programme envisaged training to farmers to acquire knowledge for storage of foodgrains stocks in pest-free condition under scientific method, quality control activities, availing credits, *etc*. It was, however, noticed that TNWC did not avail funding from GoTN and failed to conduct any training / awareness programme to farmers in the State as of August 2015.

During the Exit Conference, MD stated (January 2016) that initiatives were being taken to conduct awareness camps and increase provision of NWRs for improving the utilisation of warehouses by farmers. It was also stated that action would be taken to encourage farmers to store even smaller quantities in TNWC warehouses.

To ascertain reasons for the low occupancy by farmers, a survey was conducted by Audit along with WMs, from 385 farmers residing in the areas coming under the districts in which the sampled WHs are located. Results of survey revealed that lack of awareness among farmers about the storage facilities, location of WHs at far away places and lack of transport facilities, immediate cash requirement necessitating selling of produce on the day of harvest and selling to traders from whom they obtained loans for farming activities were main reasons for low utilisation of storage facilities by them.

Details of available storage capacity and capacity utilised during the period 2010-15 are tabulated in Table 3.2:

**Table 3.2 : Details of available storage capacity and capacity utilised during the period 2010-15**

| Year | Capacity in MTs | | | Utilisation in MTs | | | Percentage of utilisation | | |
|---|---|---|---|---|---|---|---|---|---|
| | Own | Hired | Total | Own | Hired | Total | Own | Hired | Total |
| 2010-11 | 6,24,721 | 16,824 | 6,41,545 | 5,34,382 | 16,094 | 5,50,476 | 86 | 96 | 86 |
| 2011-12 | 6,33,587 | 9,423 | 6,43,010 | 5,24,388 | 9,423 | 5,33,811 | 83 | 100 | 83 |
| 2012-13 | 6,32,629 | 13,082 | 6,45,711 | 5,42,586 | 13,082 | 5,55,668 | 86 | 100 | 86 |
| 2013-14 | 6,64,421 | 9,087 | 6,73,508 | 5,37,517 | 9,087 | 5,46,604 | 81 | 100 | 81 |
| 2014-15 | 6,79,412 | 25,148 | 7,04,560 | 5,04,033 | 25,148 | 5,29,181 | 74 | 100 | 75 |

**(Source: Information furnished by TNWC HO)**

The capacity utilisation in respect of hired godowns (two godowns only) was 100 *per cent* as they were hired based on specific demands by depositors. The capacity utilisation in own godowns came down from 86 *per cent* in 2012-13 to 74 *per cent* in 2014-15 and the occupancy rate was below the norm of 90 *per cent* fixed by GoTN in all the years. Even though the overall storage capacity increased from 6.33 lakh MT in 2012-13 to 6.79 lakh MT during 2014-15, the utilised storage capacity decreased from 5.43 lakh MT to 5.04 lakh MT during the period.

TNWC attributed (January 2015) vacation of godowns by TNCSC due to construction of their own godowns, stoppage of procurement and storage of coconut kernel by TANFED/NAFED[75], reduction in reservation of storage space by fertiliser companies and storage of goods in private godowns by traders due to low tariff to reduction in occupancy rate. However, the reduction in occupancy due to construction of godowns by TNCSC could have been avoided had there been co-ordination between TNWC and TNCSC in construction of godowns as pointed out in paragraph 3.6.2.

The details of trends in occupancy rates during 2010-15 in three sampled WHs are given in Table 3.3:

[75] Tamil Nadu Co-operative Marketing Federation Limited and National Agricultural Co-operative Marketing Federation of India.

**Table 3.3 : Details of Occupancy in WHs**

| Year | Decline/fluctuation in occupancy rate(in *per cent*) | | |
|---|---|---|---|
| | Arakkonam | Tenkasi | Tirunelveli |
| 2010-11 | 93 | 100 | 86 |
| 2011-12 | 90 | 100 | 94 |
| 2012-13 | 73 | 33 | 96 |
| 2013-14 | 71 | 88 | 76 |
| 2014-15 | 50 | 100 | 79 |

**(Source: Information furnished by WHs Managers)**

The WMs attributed the decline or fluctuation in the occupancy rate during the period to damaged godowns, poor internal roads and delay in carrying out repair works (Arakkonam), dependence on sugar mills and TNCSC for occupancy (Tenkasi), delay in carrying out repair works for damaged floor, leakage in roof, cracks in walls and entry of rain water inside godown (Tirunelveli). Had TNWC carried out the repair works in time in Arakkonam and Tirunelveli WHs, the decline/fluctuation in occupancy rate could have been avoided.

## Scientific storage

### *3.9 Upkeep of stock in godowns*

**3.9.1** As per provisions in Chapter XIII (Warehouse Management System) of Warehouse Manual of WDRA, stacks should not obstruct light and free flow of air into godown, a minimum of 0.75 metre wide space between stacks, 0.6 metre between wall and stack and 1.20 metre between door points as haulage alleyways[76] should be provided for operational purpose. Stacking of bags/containers/packages should be done on a suitable dunnage material such as bamboo mats, polythene sheets, wooden crates, *etc.* Moreover, disinfestation equipment, fumigation covers and sufficient quantity of chemicals (pesticides) should be available in WHs for carrying out pest control measures.

- It was noticed that dunnage materials available in 10 out of 15 sampled WHs were inadequate when compared with the storage space available in godowns as given in **Annexure-16.** The maximum dunnage materials available during 2014-15 ranged between nine and 98 *per cent* of the storage area. Government stated (December 2015) that usage of dunnage material would vary from commodity to commodity and there was no specific norm for the quantity of dunnage material to be kept in WHs with reference to area of godown. However, the total area of all types of dunnage material available in WHs was less than the area of storage space in each godown.

[76] Passage ways.

- During joint inspection of sampled WHs with WMs, Audit noticed that huge quantity of grains spilled all over the godowns (including alleyways and gangways[77]), platforms, upper portion of stacks (**Picture 1**) and open areas. Wooden / steel crates were not used for stacking foodgrains (**Pictures 2** and **3**).

**Picture 1: Spillage of food grains in Arakkonam WH**

**Picture 2: Stacking of foodgrains without crates in Dharmapuri WH**

**Picture 3: Stacking of foodgrains without crates in Trichy WH**

- FCI, during their inspection in Coimbatore district (November 2014), noticed infestation of wheat stock with pests, non-fumigation of infested stocks, non-maintenance of pesticides and fumigation records *etc*. Similarly, in Trichy, Kovilpatti, Dindigul and Aruppukottai WHs, FCI stocks were found infested badly and as a result, FCI proposed to impose (October 2014)10 *per cent* cut on payment of storage charges payable to TNWC.

- TNWC provides Pest Control Services *viz*., rat control, termite control and other general disinfestation works to buildings of Government departments and others by engaging outside agencies. However, outside agencies were not engaged by TNWC for pest control / disinfestation works in its own WHs. Reasons for not carrying out the disinfestation works in godowns through firms or contractors were not furnished to Audit. Audit noticed that a meagre expenditure of ₹ 74.74 lakh (0.4 *per cent* of total warehouse receipts of ₹ 185.72 crore) was incurred by WHs during 2010-15 on procurement of chemicals and other expenses. Non-provision of adequate pest control measures was one of the reasons for absence of scientific storage in WHs.

In reply, Government stated (December 2015) that in the Regional Officers' meeting held in September 2015, instructions have been issued to SRMs/RMs

[77] Passages between stacks.

and WMs by TNWC to avoid infestation and damage to stocks by proper pest control activities. During the Exit Conference, MD stated that TNWC has taken action to utilise a facility (ultraviolet lights) developed and demonstrated by the Tamil Nadu Agricultural University to control pest menace.

***Storage of foodgrains along with fertiliser***

**3.9.2** Rule 11 of the Tamil Nadu Warehouses Rules, 1953 states that goods of different classes or grades or qualities are to be stored separately. Further, as per provisions in Chapter XIII (Warehouse Management System) of Warehouse Manual of WDRA, WM should ensure that mixed storage of incompatible commodities, like fertiliser with foodgrains/sugar, is not done. However, it was seen from weekly reports on godown occupancy for the period November 2014 to February 2015 that foodgrains were stored in Godown 6 (capacity 1,310 MT) of Trichy WH, which has not been divided into compartments, along with fertilisers, even though space was available for storing it in another godown earmarked for fertiliser.

Government stated (December 2015) that SRMs/RMs have been instructed by TNWC to educate the warehouse staff suitably and to verify during regular inspections of WHs to avoid such mixed storages in future.

***Storage in excess of capacity***

**3.9.3** The Tamil Nadu Warehouses Rules (Rule 2) define storage capacity as 73 *per cent* of the floor area of godown multiplied by actual height of stack and Rule 11 requires arranging and storing of goods in such manner as to facilitate easy and effective stock-taking and verification and building of stacks without touching the walls and with a space of about 0.6 metre around each stack.

- Monthly average occupancy reports of five[78] sampled WHs during 2010-15 revealed that there was storage in excess of the capacity of the WHs by up to 51 *per cent*. Utilisation of more than 100 *per cent* capacity indicates storage of stocks in alleyways and gangways with increased stack height.

Though TNWC Head Office was aware of the storage in excess of capacity through monthly reports received from the WMs/RMs, no critical analysis of the excess storage was done. In Dharmapuri WH, where FCI rice was stored, the storage as of March 2015 was 131 *per cent*. The SRM, Salem informed (March 2015) FCI of the adverse effects of such excess stocking namely, inability to conduct physical verification and disinfestation work, storage of stocks in alleyways and gangways and inability to release stock on first in first out/priority basis.

[78] Dharmapuri, Namakkal, Salem Town, Tirunelveli and Tiruvarur.

- Joint visit (May 2015) to the godowns of Dharmapuri WH by Audit with WM also confirmed excess stock (**Picture 4**). As against the capacity of 3,000 MT each for godowns 1 and 2, the stock kept was 4,194 MT (140 *per cent*) and 4,102 MT (137 *per cent*) respectively. Due to the excess stock in the godowns, adequate disinfestation works could not be carried out by WH staff even though large-scale infestation was noticed during the period.

**Picture 4: Stacking of foodgrains in alleyways in Dharmapuri WH**

In reply, Government stated (December 2015) that, as per the request of FCI, the excess stocks were accommodated by increasing the height of stacks and stacking on alleyways and gangways to help FCI avoid huge expenditure on diversion of wagons and payment of demurrage/wharfage charges and that storage of stock in excess of capacity would be avoided in future. The reply confirms deviation from the Rules and non-adherence to the norms for scientific storage of foodgrains.

## Warehousing charges

### *3.10 Non-revision of tariff in time*

(i) In paragraph 3A.9.3 of the Audit Report (Commercial) for the year ended March 2000, it was pointed out that there was loss of revenue to TNWC due to fixation of lower tariff than CWC tariff. After discussion of the paragraph, COPU recommended (August 2015) to revise the storage charges periodically and to ensure that TNWC's rates were not less than CWC rates at any point of time. TNWC adopted CWC's rates from 2009-10 and proposed to make revisions as and when CWC revised its rates. Audit noticed that TNWC did not revise the tariff on par with CWC for the year 2010-11, even though CWC revised the rates with effect from 1 April 2010. Non-revision of tariff by TNWC during 2010-11 resulted in loss of revenue of ₹ two crore as given in **Annexure-17**.

(ii) TNWC revised the tariff for the years 2011-12 and 2014-15 belatedly (August 2011 and December 2014) with retrospective effect (from 1 May 2011 and 1 April 2014 respectively), deviating from the provisions of TNWC's Business Manual, which states that the revised rates are applicable only from the date of notification. Audit noticed that 37 private depositors refused to pay storage charges of ₹ 7.49 lakh at revised rates claimed by five WHs[79] with retrospective effect from 1 April 2014, as the revision was communicated to them after eight months from the date of effect of revision.

[79] Arani, Kancheepuram, Katpadi, Polur and Vellore.

In reply, Government stated (December 2015) that after adoption of CWC's rates with effect from July 2009, the increase in TNWC's rates was 40 to 50 *per cent* over the pre-revised rates and the revision process was completed in March 2011 and that revising the rates once again with effect from April 2010 on par with CWC rates was practically not possible to TNWC. With regard to retrospective revisions done by TNWC during 2011-12 and 2014-15, MD stated that TNWC did not receive communication from CWC about the revisions. However, TNWC was aware of annual revision of storages charges by CWC which holds 50 *per cent* of the shares of TNWC and thus, failed to ascertain and adopt the revised rates in time.

***Non-collection of storage charges at revised rates from Tamil Nadu State Marketing Corporation (TASMAC)***

**3.10.1** TNWC had let out godowns at 10 locations[80] for a total capacity of 18,508 MT on gross area basis reservation (ABR) to TASMAC during 2010-15.

(i) In Vellore WH (sampled WH), TASMAC was allotted (November 2005) a total area of 1,660 sq mt with terms and conditions including payment of storage charges at ₹ 50 per sq mt per month. In October 2010, additional clause was included in the terms and conditions that the storage charges were subject to be revised as and when revised by Head Office. TASMAC settled the bills for storage charges up to 2012-13 at the applicable rates (₹ 119.70 per sq mt). However, TASMAC did not agree to the revision of tariff for the years 2013-14 (₹ 137.75 per sq mt) and 2014-15 (₹ 149.15 per sq mt) and continued to settle bills at the rates applicable for 2012-13. This had resulted in short collection of storage charges of ₹ 10.70 lakh from TASMAC in respect of Vellore WH.

(ii) The short-collection of storage charges in respect of the remaining nine locations was ₹ 1.06 crore. Even though TASMAC informed (April 2015) TNWC that action was being taken by them to settle the claims, the dues were not settled (September 2015).

In reply, Government stated (December 2015) that MD, TASMAC has been addressed (October 2015) by TNWC to settle the dues early.

***Short levy of charges for storage area allotted on Area Based Reservation (ABR) basis***

**3.10.2** Para 5 (iii) of the Business Manual states that warehouse user can reserve storage space on gross ABR for full godown/ a compartment for a minimum period of three months. Monthly storage charges have to be paid irrespective of utilisation in full or part thereof.

However, in respect of nine depositors in Tirunelveli WH and two depositors in Tenkasi WH, charges were levied proportionately for the period of

80 Dharmapuri, Gobichettipalayam, Karur, Krishnagiri, Ranipet, Thirumangalam, Tiruppur, Tiruvannamalai, Vellore and Villupuram.

occupation instead of collecting it on monthly basis, leading to short levy of ₹ 7.44 lakh and ₹ 2.38 lakh respectively. MD, TNWC stated (November 2015) that reports have been called for from WMs of the WHs concerned and on receipt of reports from them, reply would be furnished to Audit.

***Arrears of storage charges***

**3.10.3** As per Paragraph 2 (Payment of Corporation's dues) of the Business Manual, warehouse users have to settle the warehousing charges within 30 days from the date of bill. However, there is no provision in the Manual for levy of penalty / interest on delayed payment.

(i) Scrutiny of records showed that there was huge pendency in collection of storage charges from October 1999 onwards. The charges pending collection, which was ₹ 7.09 crore in 2010-11, steeply increased to ₹ 15.86 crore (2.24 times) in 2014-15 (**Annexure-18**). Storage charges pending for more than three years as on 31 March 2015 was ₹ 3.48 crore (21.90 *per cent*). The defaulters include FCI, TNCSC, public sector companies and private depositors. Out of ₹ 3.59 crore due from private depositors, an amount of ₹ 1.43 crore related to occupancy of storage space on gross ABR and ₹ 2.16 crore on tonnage basis. TNWC, after reviewing (September 2013) the long pending storage charges, issued a circular to WMs/SRMs/RMs directing them to avoid delay in collection of storage charges as the internal resources of TNWC were being utilised for payment of Service Tax in respect of pending storage charges and advance Income Tax. However, no improvement was noticed in collection of dues.

In reply, Government stated (December 2015) that the storage charges could not be collected in full as majority of the defaulting depositors are from Government sector and that action would be taken to make provision for levy of penal interest for delayed payments. However, the reply was silent on recovery of dues from private depositors. During the Exit Conference, the Principal Secretary stated that a co-ordination committee meeting would be conducted with FCI to sort out the issues on pending bills.

(ii) Service Tax on storage charges are payable to GoI before 5$^{th}$ of succeeding month for the month in which storage bills were issued to the depositors and irrespective of the fact whether TNWC collected the storage charges in time or not. It was noticed that TNWC remitted service tax of ₹ 1.27 crore on the pending storage charges though the depositors failed to make payments which resulted in blocking of TNWC's funds.

(iii) In Tuticorin Town WH, a private depositor to whom 750 sq mt of space was let out on ABR from July 2012 paid monthly storage charges of ₹ 64,635 upto October 2012. Cheques received from the depositor for November and December 2012 bills were returned by bank for want of sufficient funds and the depositor vacated the godown in May 2013 without settling the dues (₹ 5.97 lakh). Though the GM of TNWC requested (March 2014) the District Collector, Tuticorin to initiate action against the depositor for recovery of the amount under the Revenue Recovery Act, the amount was not recovered even after one and half years.

(iv) In Tenkasi WH, 1,779 sq mt of space was let out on ABR basis to a private sugar mill from 13 February 2014. The depositor paid monthly storage charges up to May 2014 and defaulted in payments thereafter. Up to June 2015, storage charges of ₹ 37.86 lakh were due from the private sugar mill. WM neither collected the dues nor cancelled the reservation. MD, TNWC stated (November 2015) that RM, Tirunelveli has been instructed to take necessary action to collect the dues.

(v) In eight[81] out of 15 sampled WHs, there was delay of three to six months in realisation of storage charges of ₹ 137.29 lakh (258 bills) and the delay was more than six months in respect of 166 bills involving ₹ 33.24 lakh. WMs replied that there were practical difficulties in collecting the charges and following the instructions strictly for prompt settlement of storage charges would affect the business. However, timely collection of dues is an important aspect to be monitored for effective management of WHs.

## Operation and maintenance of Warehouses

### *3.11 Registration of Warehouses and provision of negotiable warehouse receipts*

**3.11.1** The Warehousing (Development and Regulation) Act (WDR Act) was enacted in 2007, the provisions of which came into effect from 25 October 2010. The objective of the Act was primarily to safeguard the interest of farmers and other stakeholders connected with financing farmers against the storage of the agricultural goods. Negotiable Warehouse Receipts (NWRs) issued by the WHs registered under this Act would help farmers to seek loans from banks against NWRs to avoid distress sale of their agricultural produce. As per the WDR Act, WHs which intend to issue NWRs were to be registered with WDRA. GoTN also directed (March 2011, May 2012 and December 2013) TNWC to register all the WHs compulsorily under WDR Act.

Scrutiny of records revealed the following:

(i) TNWC applied (July 2011) for registration of 42 out of 56 own WHs and got registered only a capacity of 2.74 lakh MT (39 *per cent*) in 36 WHs as against their total capacity of 4.19 lakh MT. Registration was refused (August 2012) by WDRA for six WHs[82] citing non-fulfilment of requirements for registration such as adequate staff, laboratory facilities, weighment facility, insurance coverage to stock, *etc.* No action was taken to register the remaining WHs till the date of audit (June 2015).

(ii) Out of 36 WHs registered for part capacity under WDR Act, no NWR was issued by six WHs during 2010-15 as farmers did not store their farm produce in those WHs and 30 WHs issued 8,692 NWRs to 1,033 farmers and

[81] Aranthangi, Namakkal, Salem Town, Tenkasi, Tirunelveli, Tiruvarur, Trichy and Tuticorin Town.

[82] Arupukkottai, Dharapuram, Gobichettipalayam, Nanjikottai, Palani and Pattukottai.

1,240 traders and out of the 30 WHs, only seven WHs reported to TNWC that they issued NWRs to farmers. The meagre utilisation of storage space by farmers and consequent non-issuance of NWRs by a majority of WHs defeated the objective of providing support to farming community.

(iii) No farmer utilised the storage facilities in any of the 15 sampled WHs during 2010-15. WMs attributed non-utilisation of storage space by farmers to storage of their produce in godowns of Agricultural Co-operative Societies/Regulated Market Committees and production of perishable items only in some areas.

(iv) WMs of seven[83] sampled WHs, which were not registered, stated (May-July 2015) that the WHs were reserved on ABR basis to Government agencies and there were no private depositors necessitating issue of NWRs. The views of WMs are not correct since the registration is to be done in respect of WHs used for stocking non-foodgrain commodity like sugar also and WHs reserved for depositors on ABR basis are not excluded from registration.

(v) In three[84] sampled WHs, only a part of their capacity was registered. After expiry of the validity of registration in August and November 2014, WMs applied for renewal belatedly and the registrations were not renewed (August 2015). Hence, NWRs could not be issued by them after expiry of validity.

In reply, Government stated (December 2015) that TNWC registered 36 WHs, which were found necessary, obtained NWRs from WDRA and issued them to the depositors and that registration of full storage capacity of TNWC is not necessary as observed from the experience gained after constitution of WDRA. However, when the mandatory registration of all godowns with WDRA was reiterated by Audit during the Exit Conference, MD stated that the matter would be taken care of appropriately.

***Insurance coverage to godown buildings and stock***

3.11.2 As per provisions of Tamil Nadu WH Rules, the warehouse buildings and the stocks stored should be insured. TNWC introduced (April 2004) a Self-Indemnification Scheme in lieu of insurance of stock through insurance companies in order to reduce the expenditure on insurance premium and created a 'Revolving Fund' with a corpus amount of ₹ 50 lakh. As per orders of BoD, every year ₹ 50 lakh was to be transferred to the Fund. The quantum of the Revolving Fund was increased (October 2012) from ₹ five crore to ₹ seven crore with annual contribution of ₹ 75 lakh.

Audit scrutiny revealed the following:

(i) TNWC fixed the quantum of Revolving Fund at ₹ five crore and subsequently increased it to ₹ seven crore, taking into account the value of

83 Ambasamudram, Dharmapuri, Nagapattinam, Salem Town, Tenkasi, Tirunelveli and Tiruvarur.
84 Aranthangi, Trichy and Tuticorin Town.

annual average stock held in one WH, whereas the value of annual average stock kept in all WHs ranged between ₹ 275 crore and ₹ 385 crore. The quantum fixed for the revolving fund would not suffice, if more number of WHs are affected by fire or other natural disasters.

(ii) TNWC did not provide insurance coverage to any of the WHs buildings (except Cuddalore) till the occurrence (December 2011) of 'Thane cyclone', which damaged warehouse buildings at Cuddalore, Kallakurichi, Panruti, Villupuram and Virudhachalam. TNWC had to carry out major repair works in the damaged WHs incurring an expenditure of ₹ 1.62 crore during February 2012 to January 2013. After the cyclone, TNWC insured (June 2013) five[85] warehouse buildings located in coastal areas along with stock. As WDRA refused (2014) to renew the registration of the godowns on the ground that the self indemnification scheme for coverage of insurance was not sufficient, TNWC insured (February 2015) the actual stock kept (0.84 lakh MT) in 36 godowns registered under WDR Act, instead of to the registered capacity. The remaining 20 unregistered WHs were also not insured till the date of audit (June 2015).

In reply, Government stated (December 2015) that TNWC was taking action to provide insurance coverage to stocks stored in the WHs registered under WDRA and that stocks in unregistered WHs would be covered under Self Indemnification Scheme of TNWC. However, during the Exit Conference, the Principal Secretary assured (January 2016) that TNWC would submit a proposal to BoD for insuring the remaining warehouses with provision for payment of premium from the revolving fund.

***Storage losses***

**3.11.3** For storage of rice and wheat in WHs for a period of less than one year, FCI fixed (July 1986) the admissible storage loss at 0.5 *per cent* and for storage period of one to two years at 0.75 *per cent* for rice and 0.5 *per cent* for wheat.

Audit noticed that out of 912 cases of storage losses reported by WMs, in 12 cases involving 532 MT of foodgrains for a value of ₹ 1.33 crore, the storage loss exceeded 0.5 *per cent* and the value of inadmissible storage loss was ₹ 71.32 lakh. FCI withheld the value of loss in excess of 0.5 *per cent* from the bills of storage charges payable to TNWC and issued directions to their field officers not to write off the storage/transit loss cases below 0.5 *per cent* in a routine manner. Details of storage losses written off or release of withheld amount by FCI were not furnished to Audit by TNWC.

In reply, Government stated (December 2015) that SRMs/RMs/WMs have been instructed by TNWC to minimise the storage losses and that officials of FCI have been contacted frequently for regularisation of the storage loss and release of withheld amounts which are still pending. During the Exit Conference, the Principal Secretary stated (January 2016) that a co-ordination

85 Meelavittan, Cuddalore, Nagapattinam, Tuticorin Port and Tuticorin Town.

committee meeting would be conducted with FCI to sort out the issues regarding disputes on storage losses.

**Fire safety in warehouses**

### *3.12 Inadequate fire fighting equipment*

**3.12.1** As per provisions of Internal Audit Manual, fire safety measures in the form of fire extinguisher (FE) and fire bucket (FB) are to be provided in WHs. FE is to be provided at each entrance of a godown and eight FBs have to be provided for every 3,000 MT capacity of a godown.

Scrutiny of stock registers of 11 sampled WHs[86] revealed that against requirement of 341 FEs, only 186 were available and in nine out of the above 11 WHs (except Trichy and Aranthangi) against requirement of 266 FBs, only 83 were available. Further, WMs did not send any proposal to SRM/HO for procuring adequate FEs and FBs despite non-availability of adequate equipment.

In reply, Government stated (December 2015) that SRMs/RMs have been directed (September 2015) by TNWC to instruct WMs to provide required fire fighting equipment in all godowns and to watch the compliance during regular inspection of godowns. Further, it was stated that SRMs/RMs have been instructed to submit requirements of equipment, if necessary, to HO for procurement.

***Fire accident in hired godown***

**3.12.2** On receipt of request for storage space from a firm[87], WM, Chennai engaged (December 2009) a private godown without the approval of Regional Manager and accepted stocks from January 2010 onwards. The depositor stored paper reels and bundles worth ₹ 1.08 crore. In March 2010, a major fire accident occurred in the godown and entire stock got damaged and became unfit for sale and the depositor claimed damages amounting to ₹ 1.08 crore. The compensation was paid by TNWC in December 2010. Scrutiny of records revealed the following:

(i) Engagement of this godown was neither approved by Regional Manager nor by the HO. The structural soundness of the building was not ensured by the engineers of TNWC/outside agency and warehouse licence for stocking articles like paper reels and bundles was not obtained by WM.

(ii) As against TNWC's instruction (August 1990) not to hire godowns with less than 1,000 MT capacity, WM engaged 375 MT capacity narrow godown with only one ventilator on the top of the wall of both the sides of the entrance.

(iii) No standard agreement form was adopted by TNWC for allotting space in hired private godowns. Only after the fire accident, TNWC issued (March

[86] Ambasamudram, Aranthangi, Dharmapuri, Nagapattinam, Namakkal, Salem Town, Tenkasi, Tirunelveli, Tiruvarur, Trichy and Tuticorin Town.

[87] M/S Hindustan Paper Corporation Limited.

2010) detailed guidelines to WMs in connection with hiring of godowns stating that insurance coverage for stock is the sole responsibility of depositors. The depositor failed to insure the stock. As a result, after the fire accident, TNWC had to pay compensation of ₹ 1.08 crore to the depositor, which was partly realised by way of auction sale of the paper bundles (₹ 57.00 lakh). This resulted in avoidable payment of ₹ 51.13 lakh from the revolving fund of Self Indemnification Scheme and other expenses of ₹ three lakh. No action was taken by TNWC against the official for the lapse.

In reply, Government stated (December 2015) that the WM accepted the stocks in anticipation of HO approval for hiring the private godown and WHs licence from the competent authority. The quantity stacked was only 275 MT as against the godown's capacity of 375 MT. It was further stated that the fire accident occurred due to electrical short circuit, which was unexpected and beyond the control of WM. However, TNWC failed to adopt standard agreement form for allotment of space in godowns incorporating clause regarding insurance coverage for stock by depositors.

***Maintenance of warehouse buildings***

**3.13** Proper maintenance and timely repairs to WHs are essential for not only retaining the existing business, but also to attract new customers.

Audit observed the following:

- BoD directed (September 2001) TNWC to allocate adequate provision in the budget estimates for repairs and maintenance works. TNWC requested (October 2012) BoD to increase the provision for maintenance for 2012-13 to ₹ 13.20 crore from the revised estimate of ₹ 9.00 crore. BoD did not sanction additional funds and directed TNWC to limit their repair works within the revised estimate. BoD also instructed (November 2013) TNWC to restrict the maintenance expenditure to 10 *per cent* of turnover, as the huge expenditure on repairs during 2012-13 affected TNWC's profitability. Audit, however, noticed that even though the percentage of overall maintenance expenditure on repairs to godowns during 2010-15 was 10 *per cent* of total WHs receipts, no expenditure was incurred on repairs in four WHs (Ambasamudram, Kallakurichi, Sankarankoil and Tenkasi) and the expenditure was less than two *per cent* of WHs receipts in six WHs[88].
- TNWC did not have any norm or schedule/periodicity for carrying out periodical repairs in godowns/calendar for periodical inspection of godowns for assessing repair works to be undertaken.
- Construction Wing (CW) had only one Construction Engineer and one Assistant Construction Engineer. As there were no sanctioned posts of Assistant Engineer (AE)/Junior Engineer (JE) at the regional level, one or two AE/JEs were appointed temporarily on deputation basis from

88 Arani, Kancheepuram, Karur, Katpadi, Madhurantagam and Mayiladuthurai.

other Government agencies, depending on workload in respect of construction of new godowns. As a result, urgent repairs reported by WMs/ RMs / depositors were not attended to by CW in time.

- TNWC, while submitting proposals to Government and BoD for sanction of additional staff and funds for repair works, stated (March 2013 and January 2015) that drop in occupancy of WHs in Tuticorin Port, Aranthangi, Nanjikkottai, Musiri, Theni and Trichy was mainly due to delay in carrying out repair works in time.
- During field visits (April to June 2015), Audit noticed cracks in walls of godown buildings, leakage in roofs, damaged floors, platforms/entrances, compound walls and approach roads. **Pictures 5 to 10** depicting the deficiencies in illustrative cases are given below.

**Picture 5: Cracks in wall – Salem Town WH**

**Picture 6: Leaky roof in Namakkal WH**

**Picture 7: Damaged floor in Nagapattinam WH**

**Picture 8: Damaged platform in Tiruvarur WH**

**Picture 9: Absence of compound wall in Arakkonam WH**

**Picture 10: Damaged approach road in Vellore WH**

Thus, inadequate provision of funds and non-fixation of schedule or periodicity for repairs to buildings and inadequate staff resulted in non-maintenance of warehouse buildings in proper condition.

In reply, Government stated (December 2015) that budget provision of ₹ six crore has been made for 2015-16 for repairs to warehouse buildings and that a schedule has been prepared for carrying out repairs and maintenance works on priority basis besides posting of adequate technical staff at regional level.

## Manpower planning

**3.14** Manpower planning involves adequate and efficient utilisation of human resource in an organisation. Details of sanctioned staff strength of TNWC and men-in-position during the period 2010-15 are given in Table 3.4:

**Table 3.4: Statement of sanctioned strength and men-in-position**

| Name of the Unit | Sanctioned Strength | Men-in position as on 1st April | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2010 | | 2011 | | 2012 | | 2013 | | 2014 | | 2015 | |
| | | MIP | P | MIP | P | MIP | P | MIP | P | MIP | P | MIP | P |
| Head Office | **85** | 92 | 108 | 94 | 111 | 87 | 102 | 78 | 92 | 75 | 88 | 66 | 78 |
| Regional Offices | **67** | 53 | 79 | 52 | 78 | 46 | 69 | 42 | 63 | 33 | 49 | 30 | 45 |
| Warehouses | **517** | 273 | 53 | 270 | 52 | 252 | 49 | 232 | 45 | 208 | 40 | 191 | 37 |

**MIP: Men-in-position P: Percentage**

**(Source: Information furnished by TNWC HO)**

In this connection, Audit observed the following:

- Staff strength of WHs was fixed in December 1990 based on the overall capacity of WHs (5.53 lakh MT) including rented capacity of 0.46 lakh MT as on that date. However, though the storage capacity of TNWC was increased to 6.79 lakh MT (March 2015), TNWC did not reassess and revise the sanctioned strength of staff in respect of WHs in the subsequent years.
- Against the sanctioned strength of 517 fixed in December 1990 in respect of staff in WHs, only 273 staff (52.80 *per cent*) were available as of April 2010 and as of April 2015 only 191 staff (36.80 *per cent*) were available.
- There was huge shortage of manpower in the categories of WM/Deputy Warehouse Manager (DWM)/Assistant Warehouse Manager (AWM). Out of 56 own WHs, 18 WHs[89] were functioning with less than 25 percent of sanctioned strength.
- In 37 WHs, as against three to five posts of WM/DWM/AWM sanctioned, only one post was filled up in 24 WHs and all activities of the WHs were looked after by one official and as there was no staff in four WHs, WM/DWM/AWM of other WHs held additional charge.

Thus, the WHs continued to function with meagre staff and the staff shortage contributed to low occupancy of warehouse space, deficiencies in scientific storage of stock, delay in carrying out repair works, pendency in collection of storage dues, improper maintenance of WHs and other lapses pointed out by Audit.

In reply, Government stated (December 2015) that as per announcements made (September 2015) by Government in the Assembly, action was being taken to fill up all the vacant posts and to strengthen the staff position according to the capacity of each WH.

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89 Ambasamudram, Attur, Cuddalore, Gobichettipalayam, Kancheepuram, Katpadi, Meelavittan, Musiri, Polur, Rajapalayam, Ranipet, Tenkasi, Tiruvallur, Tiruvannamalai, Tindivanam, Tiruvarur, Tuticorin Port and Virudhachalam.

## Other points of interest

### *Non-remittance of contribution to Construction Workers' Welfare Fund*

**3.15** As per Section 8A of the Tamil Nadu Manual Workers (Regulation of Employment and Conditions of Work) Act, 1982, every person who undertakes or is in charge of any construction shall be liable to pay a sum not exceeding one *per cent* of the total estimated cost of the building or construction work as contribution to the fund constituted for the benefit of construction workers.

Audit noticed that TNWC took up construction of 24 godowns for a total value of ₹ 99.53 crore during 2010-15, out of which 17 works were completed and seven works are in progress. However, TNWC had not made provisions in the sanctioned estimates and included a clause in the agreements for payment of contribution/recovery of the amount from contractors' bills. The contribution of ₹ 77.96 lakh was not remitted to the Construction Workers' Welfare Fund so far (July 2015). During the Exit Conference, the Principal Secretary stated that TNWC would incorporate relevant provision in the agreements in future for recovery of the cess from contractors.

## Monitoring and internal control

### *Monitoring*

**3.16** Regular monitoring of warehousing activities at all levels is essential for efficient and effective functioning of TNWC.

As per the TNWC General and Staff Regulations, 1965, Board is required to meet once in every three months and at least four such meetings should take place in a year. After discussing paragraph 3A.3 of Audit Report (Commercial) 1999-2000 on shortfall in Board meetings, COPU recommended (852$^{nd}$ Report presented to the Assembly in August 2015) that for effective control and review of its performance at least one meeting should be conducted every quarter in future.

Audit observed that as against 20 meetings to be held during 2010-15, the Board met only on 10 occasions resulting in shortfall in holding of 10 meetings.

### *Internal control*

**3.17** To ensure proper internal control in maintenance of accounts in TNWC, BoD approved a draft Accounts Manual as early as in January 1990. Similarly, BoD also insisted on preparation of Cost Accounting Manual for examining the viability of construction/hiring of godowns, fixation of storage charges and considering suitable rebates to enforce competitive business.

TNWC, however, neither adopted the Accounts Manual for preparation and finalisation of accounts nor prepared the Cost Accounting Manual.

In WHs where all the three posts of WM, DWM and AWM were created, only one post was operated even though there is segregation of duties for WM and DWM/AWM, thereby weakening the internal control system. In reply, Government stated (December 2015) that action has been taken by TNWC to prepare the Cost Accounting Manual. During the Exit Conference, the

Principal Secretary assured that TNWC would place an agenda/explanatory notes in respect of such pending items to BoD to ensure early compliance.

***Internal Audit***

**3.18** As per norms fixed by TNWC (September 2007), internal audit (IA) of WHs should be conducted every quarter. In November 2014, TNWC increased the periodicity to once in two months in view of poor maintenance of stock registers and other records in WHs. TNWC operated 55 WHs (except newly established Batlagundu WHs) during the period 2010-15. As against 1,100 IAs to be conducted during the period, only 848 audits (77 *per cent*) were conducted due to shortage of staff in IA parties. Out of seven posts each of Deputy Manager (DM) and Assistant sanctioned for seven regions, Assistant posts in all regions were not filled since 2013 and three posts of DM were vacant. Though critical review of TNWC's systems, procedures and operations as a whole is one among the functions of IA, the IA mainly covered general aspects such as renewal of warehouse licence, storage loss, storage charges due, Service Tax, short claims of storage charges *etc*., and critical review was not done. The IA reports received from IA Parties were not processed and placed before BoD for review and giving directions to field staff due to shortage of IA staff at HO.

During the Exit Conference, MD stated (January 2016) that, at present, the IA function has been entrusted to Regional Managers, as an *ad-hoc* measure, due to shortage of manpower and assured that the position would improve when recruitment of staff is made.

## Conclusion

TNWC did not undertake any assessment for the future storage requirements of the State and not have a systematic plan for construction of godowns. There was no co-ordination among various Government and co-operative agencies in the State. There were delays in construction of godowns resulting in loss of guaranteed business. Capacity utilisation in own godowns was below the norm of 90 *per cent* fixed by Government and it came down from 86 *per cent* in 2012-13 to 74 *per cent* in 2014-15. Utilisation of warehousing facility by farmers was less than one *per cent* indicating the need for creation of awareness among farmers. There were substantial arrears of storage charges. Only 36 out of 56 warehouses were registered under the Warehousing (Development and Regulation) Act, 2007 for part capacity and insurance coverage was provided only for the quantity of stock held in those partly registered warehouses. There were deficiencies in provision of scientific storage facility, safety measures and infrastructure in warehouses. Adequate funds were not provided for maintenance of warehouse buildings. Warehouses were operated with 47 to 63 *per cent* vacancies in various categories of staff.

## Recommendations

The Department / TNWC may consider:

- assessment of storage requirements of the State and preparation of a comprehensive plan for construction of godowns;
- improving utilisation of storage space by farmers by earmarking certain storage capacity for farmers to facilitate them to obtain loan against such stocks kept in TNWC godowns;
- registering all warehouses under the WDR Act and providing insurance coverage to buildings and stock of all warehouses; and
- ensuring scientific storage facility and proper maintenance of godowns to reduce storage loss and settling the issue of storage loss by negotiation based on FCI norms.

# CHAPTER-IV

# CHAPTER - IV

## 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.

## State Transport Undertakings

### *4.1 Delay in settlement of accident compensation*

### Introduction

**4.1.1** The road network in Tamil Nadu increased from 2,16,352 kms in 2010-11 to 2,46,789 kms in 2013-14. In this period, Passenger transport buses in the State also increased from 27,690 to 31,190 buses. The share of eight State Transport Undertakings (STUs[90]) in public transport, which was 19,761 buses (71 *per cent*) in 2010-11, increased to 22,501 buses (75 *per cent)* during 2013-14. The STUs operated 12.55 lakh route kms during 2013-14. Rapid expansion in the road network and motorisation in the State has been accompanied by a rise in road accidents, resulting in fatalities, injuries, *etc*., to the accident victims.

***Statutory Provisions for payment of compensation***

**4.1.2** As per the provisions of Section 140 of the Motor Vehicles Act, 1988 (Act), the owner/owners of motor vehicles are liable for payment of compensation for death or permanent disablement as a result of accident by involvement of motor vehicles. Section 146 of the Act, further provides that no motor vehicle shall be used in a public place unless there exists a policy of insurance to cover third party risks. However, Section 146(3) of the Act provides that the public transport vehicles belonging to the STUs are exempt from insurance, provided an insurance fund is created by the STUs for meeting third party liabilities.

### Creation of insurance fund

**4.1.3** In accordance with the provisions of Section 146(3) of the Act, the Government of Tamil Nadu (Government) permitted (between 1972 and 1985) the STUs to create their own insurance funds for discharge of their liabilities towards accident compensation. Though the STUs created their own insurance fund, they could not adequately contribute to the fund in view of their stringent financial position. Consequently, the pendency of claims for accident compensation accumulated to ₹ 224.49 crore involving 11,721 accident cases, as of March 2010.

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[90] State Express Transport Corporation (Tamil Nadu) Limited, Metropolitan Transport Corporation (Chennai) Limited, Tamil Nadu State Transport Corporation (TNSTC) (Villupuram) Limited, TNSTC (Salem), TNSTC (Coimbatore), TNSTC (Madurai), TNSTC (Kumbakonam) and TNSTC (Tirunelveli).

Considering the inability of the STUs to expeditiously settle the claims, the Government subsequently created (October 2010) an "Accident Claims Settlement Fund" (Fund) to grant immediate relief to the accident victims. The scheme, *inter alia*, provided that there would be an annual contribution of ₹ 20 crore by the Government, which would be allocated to the STUs on the basis of their fleet strength and a matching contribution of ₹ 20 crore by all STUs together. The contributions to the Fund were to be utilised for immediate payment of compensation upto ₹ 3.00 lakh for fatal accidents and upto ₹ 1.00 lakh for grievous injuries, which were settled through Lok Adalat. Over and above the aforesaid contributions, the STUs were required to collectively settle accident compensation claims upto ₹ 80 crore every year from their own resources.

Audit examined the system of settlement of compensation claims by STUs covering the period from 2010 to 2015. Audit analysis revealed the following:

***Pendency in settlement of accident compensation***

**4.1.4** Despite creation of the above Fund, the number of cases decided by various Courts, but not settled by STUs, increased from 11,721 involving ₹ 224.49 crore as on 31 March 2010 to 16,797 involving ₹ 435.07 crore as on 31 March 2015. The age-wise analysis of pending cases is given in **Annexure-19**.

The STUs had not settled 11,205 accident claims, which were accepted by them, involving an amount of ₹ 207.72 crore, due to their stringent financial position. Audit noticed that the Tribunals/Courts directed payment of interest from the date of judgment to the date of settlement of the claims. Considering the minimum interest rate of 7.5 *per cent* imposed by the Tribunals/Courts, interest on account of non-settlement of the above claims of ₹ 207.72 crore worked out to ₹ 58.65 crore. In addition, there were 5,382 fatal (₹ 716.65 crore) and 22,702 injury cases (₹ 786.94 crore), totalling 28,084 accident claims amounting to ₹ 1,504 crore, which had not yet been decided upon by the Courts. These claims were shown as contingent liabilities in the accounts of the STUs.

***Inadequacy of funds***

**4.1.5** The contributions to the Fund and the amount provided by STUs from their own resources for settlement of accident claims and disbursements there-against, during the five years ending March 2015 is given in **Annexure-20**.

During the years 2010-11 to 2014-15, the fresh claims arising every year ranged from ₹ 133.62 crore to ₹ 198.29 crore. Against the above, the Government had envisaged (October 2010) an annual contribution of ₹ 120 crore[91] by itself and by the STUs. In view of the insufficiency of the contribution, the outstanding claims rose from ₹ 224.49 crore (11,721 cases) as on 1 April 2010 to ₹ 435.07 crore (16,797 cases) as on 31 March 2015. Audit further observed that:

[91] ₹ 20 crore by the Government to be allocated to the STUs on the basis of their fleet strength, matching contribution of ₹ 20 crore by all the STUs and another ₹ 80 crore to be incurred by STUs from their own resources.

- As per the guidelines, the Fund could be utilised for payment of compensation upto ₹ 3.00 lakh for fatal cases and upto ₹ 1.00 lakh for grievous injuries and settled through Lok Adalat. The settlement of the remaining cases, not meeting the above criteria, was kept outside the purview of the Fund and the delays persisted in settlement of these cases, even after formation of the Fund.

- An analysis of the 1,340 cases settled by State Express Transport Corporation (Tamil Nadu) Limited and Metropolitan Transport Corporation (Chennai) Limited during the period April 2010 to March 2015 revealed that 314 fatal and 1,026 injury cases were settled with delays upto 25 years, after reckoning the time limit of 30 days for payment of compensation as per the provisions of Section 168 of the Act. Further analysis of delays revealed that more than 75 *per cent* of fatal (243) and injury (798) cases were settled after delays upto five years, 18 *per cent* of fatal (56) and 20 *per cent* of injury (202) cases were settled after delays ranging from 5 to 10 years and 15 fatal and 26 injury cases were settled after delays of over ten years. The delays resulted in payment of additional interest of ₹ 9.19 crore.

The Government admitted (January 2016) that financial constraints of the STUs was the reason for non-settlement of accepted cases.

- Due to non-settlement of awarded cases by the STUs, 4,771 buses were impounded by various Courts during the five year period ending March 2015. Out of these 4,771 buses impounded by various Courts, 692 buses were not released by the Courts as of March 2015. This led to loss of operation of 4.24 lakh days resulting in loss of contribution of ₹ 213.37 crore, besides affecting the image of the STUs adversely among the public. 138 buses impounded were for non-payment of amounts below ₹ 50,000. Between July 2010 and November 2014, the STUs obtained ways and means advance of ₹ 135 crore carrying an interest rate of 12/13.5 *per cent per annum* from the Government for immediate settlement of the accident compensation, the non-payment of which had resulted in impounding of the buses by various Courts. These borrowings increased the interest burden of the STUs by ₹ 54.51 crore (interest of ₹ 44.22 crore and penal interest of ₹ 10.29 crore) during the five years ending 2014-15.

The Government replied (January 2016) that spare buses were operated in place of impounded buses and thus, the loss pointed out by audit was compensated. However, no documentary evidence in support of usage of spare buses in place of impounded buses was available in the STUs.

***Diversion of funds***

4.1.6 The Government nominated another State PSU *viz.*, Tamil Nadu Transport Development Finance Corporation Limited (TDFC) as the manager of the Fund. The STUs had to submit the list of claims to TDFC, which would admit the claims after verifying that the cases satisfied the conditions prescribed in the Government Order for release of amount from the Fund. Audit, however, noticed that six STUs unauthorisedly diverted ₹ 18.98 crore received for settling 963 cases from the Fund for their working capital without disbursing the same to claimants. This had resulted in deprival of the entitled compensation to the claimants, besides avoidable interest burden of ₹ 1.08 crore.

The Government, in its reply (January 2016) admitted the fact and stated that the same was due to the financial constraints of the STUs.

***Limitations in the Government Order for fund utilisation***

4.1.7 As per the conditions prescribed by the Government for utilisation of the Fund, the maximum amount of settlement for fatal cases was ₹ 3.00 lakh and ₹ 1.00 lakh for grievous injuries. Due to this ceiling, the Fund could not be used for cases involving compensation of more than ₹ 3.00 lakh and ₹ 1.00 lakh, respectively. Audit noticed that 5,888 cases were within the monetary ceiling and 2,130 cases were beyond the monetary ceiling as of March 2013. Only in June 2013, the Government removed the monetary ceiling and ordered that the Fund could be utilised for all pending cases. Between January 2011 and November 2011, adequate balance was available in the funds. However, in view of the above ceiling, the STUs could not utilise the same and had to resort to ways and means advance of ₹ 56.36 crore from the Government, carrying an interest rate of 12 *per cent per annum* for settling the claims with money value of more than ₹ 3.00 lakh. Audit observed that the drawal of ways and means advance by STUs was avoidable because the Fund had unspent balances to the extent of ₹ 38.72 crore and ₹ 48.28 crore as of March 2011 and March 2012, respectively, which could not be utilised for settlement of all pending cases due to want of clarity. Consequently, the STUs had to pay avoidable interest of ₹ 16.96 crore on the above ways and means advance.

The Government replied (January 2016) that consequent upon clarification issued in February 2014 regarding monetary ceiling for utilisation of fund, the corpus fund was fully utilised. The fact, however, remains that till the receipt of such clarification, there was only limited utilisation of the corpus fund resulting in additional interest burden for drawal of ways and means advance for settlement of accident compensation.

## Follow-up of cases in Courts

***Failure to honour the Court Judgments***

**4.1.8** After pronouncement of awards of accident compensation by Motor Accident Compensation Tribunal (MACT), the STUs had to settle the claims of the victims/their families. Whenever, the STUs did not make payments of the awarded amount, the claimants filed Execution Petition (EP) to enforce payments. Audit analysis revealed that there were 699 EPs involving ₹ 25.64 crore awarded by the Courts, but not settled by two STUs till date (July 2015). Further analysis revealed that 18 *per cent* of EPs were pending for more than 10 years, 21 *per cent* of them were pending for between 5 and 10 years and the balance 61 *per cent* were pending for less than five years. Thus, failure of the STUs to honour these EPs had delayed payment of compensation to the victims/families, besides accrual of interest liability of ₹ 19.72 crore till 31 March 2015.

The Government attributed (January 2016) the financial constraints of the STUs as the reason for such failure.

***Appeals against the legal opinion***

**4.1.9** Though the legal counsel of the MTC and SETC had opined not to prefer appeal in 10 cases, the STUs went on appeal overlooking the opinion of the legal counsel. This resulted in avoidable payment of enhanced compensation to the extent of ₹ 25.67 lakh.

***Non-claiming of refund of deposits from Courts***

**4.1.10** As per the conditions prescribed under Section 173 of the Act, for preferring appeals, STUs had to deposit a fixed amount, as directed by the Courts, in respect of such appeals. Whenever the quantum awarded by Courts was lower than the amount already deposited by the STUs, the excess deposit would be refunded by the Courts. It was seen in Audit, that as of March 2015, all the eight STUs had deposited funds amounting to ₹ 2.55 crore in respect of 638 cases between September 1992 to August 2010. Although the above cases have been settled by the Courts, the STUs had not taken any steps to obtain the refund of ₹ 2.55 crore, which could have been beneficially utilised for settlement of other accepted cases.

The Government replied (January 2016) that steps were being taken to obtain refund of amount from the Courts.

## Conclusion

The Government created the Fund with the main objective of expeditious settlement of claims to the accident victims. But, even after formation of such a Fund, the settlement of accident compensation was not prompt due to:

- Inadequate contribution to the Fund.
- Non-provision of own funds by the STUs for accident claims, as per the directions of the Government.
- Not honouring the Court judgments and EPs for settling the accident claims.

Thus, the accepted accident claims, amounting to ₹ 207.72 crore remained unsettled for years together. The above situation led to additional interest burden on the already funds starved STUs. Impounding of buses due to not honouring the Courts' judgement had adversely affected the image of the STUs. This not only led to loss of revenue to the STUs, but also put the victims and their families to hardship. Thus, there is an urgent need to ensure that settlement of compensation claims is done in a time bound manner.

## Pallavan Transport Consultancy Services Limited

### *4.2 Improper contract management*

**The Company selected an ineligible contractor for operating the on-line e-ticketing system and extended undue benefit of ₹ 4.06 crore by providing interest free mobilisation advance**

The Government of Tamil Nadu (Government) decided (October 2008) to introduce on-line electronic ticketing machine (ETM) in all its State Transport Undertakings (STUs) and nominated (April 2011) Pallavan Transport Consultancy Services Limited (Company) as the nodal agency for implementing the project.

In the pre-bid meeting (September 2012) of the tender floated in August 2012, the project model was finalised as Design, Build, Own, Operate and Transfer (DBOOT) of GPS based e-ticketing system[92] for all STUs. After evaluation (February 2013), the Request for Proposal of technically qualified bidders by the tender award committee, the consortium of three firms with M/s Ingenerie Technology Solutions Private Limited (contractor), Hyderabad as the Prime Bidder was selected, which quoted the DBOOT charges of ₹ 0.1195 per ticket as a charge for the entire service. The work order issued to the contractor (March 2013) provided six months for pilot study, followed by commercial operation of the project for five years from 1 October 2013 to 30 September 2018. Audit analysis of the contract management of the project revealed the following:

#### *(i) Selection of ineligible bidder*

As per the tender conditions, the Prime Bidder of a consortium must (i) be an

92 Global positioning system enabled e-ticketing system facilitates tracking of vehicle locations and stores ticket transactions in a server in a real time environment.

Information Technology (IT) Company in operation for minimum of three years as of June 2012 and (ii) have networth of ₹ 15 crore as of March 2012. However, the prime bidder, who was selected, had no business operation in the IT field in the three years ending 2011-2012. Moreover, the contractor was known as M/s Mango Healthcare Solutions Limited upto January 2013 but changed its name to M/s Ingenerie Technology Solutions Private Limited only on 24 January 2013, *i.e.* the date of opening of the tender. The contractor also changed the object clause enabling it to carry on the business of software development, IT enabling services, *etc*. Further, an independent verification by Audit from the Registrar of Companies revealed that the networth of the contractor was (-)₹ 50.74 lakh as of March 2012. Thus, the contractor did not technically and financially qualify for award of the work and hence, their selection was irregular.

***(ii) Extension of undue benefits***

(a) As per the Transparency in Tender Act, 1998 (Act) of Government of Tamil Nadu, implementing agencies shall not pay interest-free mobilisation advance to any contractor. In violation of the Act, the tender conditions, provided for payment of interest free mobilisation advance of ₹ 15 crore to the contractor, which was recoverable after commencement of commercial operation of the project. Though the contractor was paid (May 2013) mobilisation advance of ₹ 15 crore, no recovery was made as of June 2015, due to non-achievement of commercial operation of the project in seven out of eight STUs. The consequent interest forgone, worked out by Audit, was ₹ 4.06 crore,[93] which resulted in undue benefit to the contractor.

(b) In seven out of eight STUs, the contractor, who was required to supply 99 *per cent* of the daily requirements of ETMs of each STU, had completed supply of ETMs only to the extent of 6 to 63 *per cent*. However, the Company did not levy penalty as per the contractual terms, which worked out to ₹ 6.02 crore (**Annexure-21**) for the delay of 22 months in supply of ETMs.

In Metropolitan Transport Corporation (Chennai) Limited (MTC), where the commercial operation was in progress, there were recorded complaints (October 2014) about (a) defective working of 29 *per cent* of the ETMs supplied (8,935), (b) not establishing the data center and backup of ETM data, (c) ineffective on-line reporting system *etc*. This indicated that commercial operation was not satisfactory in MTC.

The Government replied (September 2015) that Ingenerie was selected considering their total experience of more than seven years in software development and networth of ₹ 15.03 crore as of December 2012. It added that the slow progress of the contract in other STUs was due to not providing suitable locations for installation of hardware by these STUs. The reply is not convincing because (i) the contractor was earlier a medical transcription company and became an IT company only on the date of opening of the tender, (ii) as per the criteria fixed for tender evaluation, the networth of Ingenerie as of March 2012 and not December 2012 was required to be

93 At 12.50 *per cent per annum* from May 2013 to June 2015, being the rate of interest prescribed as per GO No.148 dated 4th May 2013 for lending to PSUs.

considered and (iii) the Company had issued many letters including a show cause notice (March 2014) to Ingenerie attributing the delays on them, which indicated that the delay was not on the part of STUs.

## Electronics Corporation of Tamil Nadu Limited

### *4.3 Loss of interest*

**The Company's failure to adopt the procedures for collection of upfront lease rent and land development charges, as per the directives of the State Government, led to non-collection of development charges of ₹ 10.82 crore and loss of interest of ₹ 7.50 crore**

The Electronics Corporation of Tamil Nadu Limited (Company) had initiated and established (between March 2010 and May 2011) Information Technology Special Economic Zones (IT SEZs) in an area of 1,588 acres of land in Chennai and six[94] more cities in Tamil Nadu. The land within the IT SEZ areas was allotted to the IT companies on 99 year lease basis. In October 2009, the State Government directed the Company to work out the procedure for fixation and collection of the lease charges, based on the procedures being adopted by the State Industries Promotion Corporation of Tamil Nadu Limited (SIPCOT)[95]. The Company, in its Board of Directors meeting held in October 2009, adopted the directives of the State Government for implementation.

Audit scrutiny of lease agreements of the Company revealed (February 2012) that SIPCOT collected lease rent after allowing 90 days for payment of lease charges and for payments beyond 90 days, an interest of 15.5 *per cent per annum* was levied. Against the above, the Company allowed only 60 days time for payment of lease rent, but failed to levy interest for the delayed payments beyond 60 days.

The Company allotted 133.74 acres of land to eight allottees between May 2010 and September 2014 and received the lease rent of ₹ 27.95 crore. Five of the eight allottees paid the lease rent of ₹ 11.01 crore, with delays ranging from 31 to 502 days over and above the time limit of 60 days, but the Company did not recover interest for the delayed payment, which was worked out by Audit to ₹ 1.59 crore (**Annexure-22**). The non-recovery of the interest for the above delays, without any recorded reasons, was in violation of the directives of the State Government, which had authorised the Company to adopt the entire procedure of SIPCOT for fixation and collection of lease rent.

Audit further noticed that SIPCOT should have also recovered the land development charges[96] over and above the lease rent. However, the Company failed to evolve a system for recovery of development charges alongwith the lease rent as per the procedure of SIPCOT and did not recover the

94 Madurai, Trichy, Coimbatore, Tirunelveli, Salem and Hosur.

95 SIPCOT is another State Public Sector Undertaking engaged in promotion and allotment of industrial areas in the industrial parks established by it throughout the State.

96 Cost incurred for creation of basic infrastructure facilities within the SEZ areas like water arrangements, sewerage, roads, *etc.*

development charges of ₹ 10.82 crore from all the eight allottees mentioned above. Such non-recovery resulted in blocking up of its funds and loss of interest of ₹ 5.91 crore **(Annexure-23)**.

The Government replied (August 2015) that levy of interest for belated payments of lease charges was not feasible due to lack of demand. It further stated that development charges would be collected in due course. The reply is not acceptable as the same was in contradiction with its own directions to adopt the procedures of SIPCOT for collection of lease charges along with interest.

## Tamil Nadu Transport Development Finance Corporation Limited

### *4.4 Avoidable loss*

**Non-availing/partial availing of cash discount led to loss of revenue of ₹4.42 crore**

The State Transport Undertakings (STUs) purchase chassis, based on the annual rate contract finalised by the Institute of Road Transport, which is the nodal agency authorised by the State Government. The payments for purchase of chassis are made by Tamil Nadu Transport Development Finance Corporation Limited (Company), an agency nominated by the State Government. These payments are met out of the share capital and loans sanctioned by the State Government to the STUs. The balance, met by the Company, is treated as its loan to the respective STUs.

As per the practice in vogue, the Company makes payments to the suppliers of chassis based on the invoices verified and forwarded by the STUs to it. The payment terms of the purchase orders provide for availing of 90 days credit by STUs from the date of acceptance of chassis. In case payment is made within 90 days of credit period, the suppliers extend a cash discount (ranging from 7.5 to 9.5 *per cent per annum*) on *pro-rata* basis for the number of days of credit not availed. As Government's assistance is received upfront by the Company before receipt of chassis by the STUs, it is financially advantageous for the Company to make the payment to the supplier by availing of the maximum cash discount. For this purpose, the Company had requested (September 2010) the STUs to submit the original bills within two to three working days to enable it to avail maximum cash discount. The Government had also directed (April 2013) that all STUs should send the Letter of Acceptance (LoA) for the purchase of chassis within 15 days.

Detailed examination by Audit of 8,128 payments made by the Company in respect of all the eight STUs, to the suppliers between April 2010 and June 2015, revealed that (i) 2,543 payments (31 *per cent*) were processed based on receipt of LoA from the STUs within the due dates and cash discount was fully availed, (ii) in 4,062 payments (50 *per cent*), the cash discount was not availed for periods ranging from 2 to 75 days[97] and (iii) in another 1,523

[97] After allowing 15 days for processing of invoices by the STUs.

payments (19 *per cent*), no cash discount was availed at all. The loss, due to non-availing of discount mentioned above, was worked out by Audit to ₹ 4.42 crore.

The Government replied (September 2015) that non-availing of discount was due to delays in submission of LoA by the STUs. The fact, however, remains that, if only the Company had ensured timely submission of invoices by STUs, the above loss could have been avoided.

## Tamil Nadu Tourism Development Corporation Limited

### *4.5 Infructuous expenditure*

**Allowing a new technology for towing of submarine without adequate precaution led to infructuous expenditure of ₹ 4.41 crore, apart from non-achievement of objective of establishing a Maritime Heritage Museum**

The State Government decided (July 2011), to establish a Maritime Heritage Museum at Mamallapuram by show-casing the de-commissioned submarine "INS Vagli", offered by Indian Navy free of cost. It designated (June 2012) the Tamil Nadu Tourism Development Corporation Limited (Company) as a nodal agency for implementing the project. The feasibility study conducted (March 2012) through the Academy for Marine Education and Training University (AMET) indicated that the best option would be to move the submarine upto Chennai Port as a single unit and cut the submarine into eight designated parts, which could be re-assembled at Mamallapuram using welding technology. The technical committee, formed (September 2012) by the Government to assist in implementation of the project, directed (October 2012) that towing operations of submarine from Chennai to Mamallapuram need to be executed through a reputed contractor with a proven track record.

In the tender floated (December 2012) for selection of contractor, the lone bidder, M/s Tradex Shipping Company Private Limited, Chennai (Tradex), indicated that towing operation would be carried out using air bags technology[98]. When the Company sought the opinion (April 2013) of Indian Maritime University (IMU) on air bags technology, it opined (May 2013) that the same was generally used in sheltered water[99] and feasible only when meticulous planning was carried out at every stage.

The proposal, submitted (April 2013) by the Chairman and Managing Director to the Board of Directors of the Company for approval of placement of order on Tradex, did not bring out the precautions to be followed in the towing operations recommended by IMU and AMET. The work order was issued to Tradex in May 2013 at a total cost of ₹ 8.01 crore. After laying foundations at

98 Insertion of marine air bags in the space between submarine bottom and land, rolling the submarine over the inflated air bags of adequate capacity and pulling the submarine towards land.

99 Sheltered water means water, which is not exposed to the main body of water like an ocean or a large lake and not affected by waves or windy conditions.

site, Tradex towed the submarine from Chennai on 6 April 2014. After towing the submarine upto mid-sea, Tradex aborted towing the submarine upto the shore of Mamallapuram, citing *force majeure* conditions, such as strong water current and high wave conditions. Subsequently, Tradex towed back the submarine to Chennai Port on 30 April 2014. Tradex also demanded (April/May 2014) additional cost of ₹ 10.68 crore for completing the work in addition to part payment of ₹ 4.41 crore received upto April 2014. Though the Company rejected (February 2015) the proposal of Tradex and proposed (February 2015) levy of liquidated damages of ₹ 1.19 crore, besides invoking the bank guarantee of ₹ 40.05 lakh, these recoveries were not made pending receipt of legal opinion on these issues till date (July 2015).

Audit observed that:

- Against the technical advice to select a contractor with proven track record, the Company had selected Tradex without ascertaining its previous experience. Further, Tradex's partner from China had experience in towing submarine only in breakwaters[100] and not under open sea conditions.

- The opinions of AMET and IMU indicated the associated risks of moving the submarine as a single piece upto Mamallapuram. However, these opinions were not apprised by the Company to Government or to its Board of Directors at the time of submission of proposal and the Company allowed the contractor to move the submarine as a single piece using air bag technology. These failures led to abandoning of the work midway.

The Government replied (August 2015) that it was the considered decision of the Government to haul the submarine as a single piece through the sea route, for which the Company selected the contractor after exercising due diligence. The fact, however, remains that the opinions of the experts *viz.*, IMU and AMET, which brought out the risks involved in moving the submarine as a single piece as well as for usage of air bag technology were not given due consideration by the Company. This ultimately resulted in infructuous expenditure of ₹ 4.41 crore, besides non-achievement of the objective of establishing Maritime Heritage Museum at Mamallapuram.

[100] A breakwater is a structure constructed for the purpose of forming an artificial harbour with a basin so protected from the effect of waves as to provide safe berthing for vessels.

## Poompuhar Shipping Corporation Limited

### *4.6 Avoidable penal interest*

**The Company's failure to remit the statutory payments of service tax within the due dates, as prescribed in the Act, led to avoidable penal interest of ₹ 2.21 crore**

Poompuhar Shipping Corporation Limited (Company) provides services to Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) for ocean movement of coal, required for the thermal stations under its control. As defined in Section 65 (105) of the Finance Act, 1994 (Act), the services offered by the Company are classified as taxable services. After registering itself (June 2009) as a service provider with the Central Excise department, the Company belatedly remitted (September 2012) the service tax of ₹ 1.42 crore for the period from September 2009 to June 2011, after receiving (between April 2011 and April 2012) show cause notices from the Commissioner of Service Tax, Chennai.

Audit noticed that the Company paid the service tax for the period from July 2011 to June 2012 by way of adjustments from input credit of the tax entitled to it. However, it did not remit the service tax within the due date from July 2012 to March 2015. The payments were delayed for periods ranging from 1 to 296 days[101], which attracted penal interest of ₹ 2.21 crore, as per Section 75 of the Act.[102] Out of this penal interest, the Company had already paid (March 2015) ₹ 1.93 crore. Since the Company had short-term deposits at the end of March 2012 amounting to ₹ 7.53 crore, which increased to ₹ 13.02 crore by March 2014, the payment of penalty could have been avoided.

The Company replied (August 2015) that the surplus funds were not made out of the operations relating to TANGEDCO and hence, it could not be applied for payment of service tax, which was arising out of the services relating to TANGEDCO. The reply is not convincing because the payment of statutory liability should not be linked with the availability of surplus funds out of the specific services rendered and hence, the payment of penal interest was avoidable.

The matter was reported to the Government in August 2015; their reply was awaited (January 2016).

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[101] 17 payments were made with delays upto 90 days, five payments with delay of 91 to 180 days, seven payments with delay of 181 to 270 days and one payment with delay of 296 days.

[102] The penal interest is calculated at rates ranging from 10 to 36 *per cent* being fixed by the Central Government. In the instant case, the same was fixed at 18 *per cent per annum*.

## Tamil Nadu Minerals Limited

### *4.7 Wasteful expenditure*

**Injudicious decision to avail high cost Foreign Currency Loan despite availability of own funds, led to avoidable payment of interest amounting to ₹ 1.65 crore**

Tamil Nadu Minerals Limited (Company) decided (August 2009) to establish a granite cutting and polishing unit at Melur, Madurai district at a total project cost of ₹ 34.25 crore. The techno-economic feasibility study prepared (October 2009) indicated that the cost of the project would be financed equally by Company's own funds and term loans to be availed from banks. After placing (March 2010) the order on a supplier from Italy for import of machinery for a value of ₹ 18.29 crore, the Company decided (June 2010) to avail a Foreign Currency Loan (FCL) of ₹ 13.34 crore at the rate of LIBOR[103]+4.50 *per cent* and obtained (September 2010) the same from Indian Bank, Triplicane. The loan was drawn in four instalments between April 2011 and October 2011 and was repayable in seven years from 2012-13 to 2018-19. The project was commissioned in July 2013 at a total cost of ₹ 42.31 crore.

The Company continued repayment of both principal and interest of the FCL and paid ₹ 7.13 crore (principal: ₹ 4.07 crore and interest: ₹ 3.06 crore) upto the quarter ending September 2014. Subsequently, the Company repaid the balance amount of FCL of ₹ 12.25 crore and the outstanding interest of ₹ 18 lakh on 15 September 2014 on the grounds that the FCL was costing more on account of increase in the exchange rates and the Company was having sufficient funds available in the fixed deposit. Thus, during the operation of the loan period, the Company had repaid the principal amount of ₹ 16.32 crore[104] and interest of ₹ 3.24 crore.

In this connection, Audit observed that even when the Company decided (June 2010) to finance the project cost to the extent of 40 *per cent* in the form of FCL, it had internally generated surplus funds of more than ₹ 60 crore, kept in current accounts and term deposits. Further, after meeting ₹ 28.97 crore towards the cost of the project from internal sources, the Company had surplus funds of more than ₹ 50 crore during the subsequent years upto 2013-14. However, the Company decided only in September 2014 to foreclose the FCL, considering its favourable funds position. In the meantime, the Company had incurred an expenditure of ₹ 6.22 crore towards interest (₹ 3.24 crore) and differential exchange rate (₹ 2.98 crore) for availing FCL against the possible loss of interest of ₹ 4.56 crore[105] for usage of the own funds, which were kept in short term deposits. Thus, the injudicious decision to avail FCL, instead of using its own funds, led to avoidable expenditure of ₹ 1.65 crore.

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103 London Inter Bank Offered Rate.

104 This includes the basic loan amount of ₹ 13.34 crore and ₹ 2.98 crore being exchange rate variations paid during the repayment of the principal amount.

105 At the rate of 10 *per cent per annum* for 41 months on the principal amount of ₹ 13.34 crore.

The Government replied (December 2015) that the additional liability towards interest was incurred by the Company on account of unforeseen foreign currency fluctuations. The fact, however, remains that in view of the internal surplus funds, the Company need not have resorted to FCL.

## Tidel Park Limited

### *4.8 Unintended benefit*

**The Company failed to collect lease rent for a portion of the food court, which resulted in extension of unintended benefit to a private lessee to the extent of ₹ 85.64 lakh**

Tidel Park Limited (Company) is engaged in providing infrastructure facilities to Information Technology (IT) and IT enabled service companies. It had created office space with all amenities in an area of 10.60 lakh square feet (sq ft ) in its own premises in Chennai. The above area also included area (16,735 sq ft) earmarked for food court in the first and ground floors of the premises.

In January 2007, the Company leased out[106] 12,600 sq ft of space in the ground floor on tender basis but collected monthly rent for only 10,150 sq ft at ₹ 35 per sq ft The lease period, which commenced in April 2007, was effective for three years upto March 2010 with a provision in the lease agreement for extension of the lease period for another three years.

Audit noticed (September 2008) that against the monthly lease rent to be collected for allotment of 12,600 sq ft [107] as mentioned in the lease agreement, the Company had actually charged and collected lease rent only for the dining area of 10,150 sq ft. Consequently, the storage and kitchen area measuring 2,450 sq ft in the ground floor was let out free of any lease rent from April 2007. It is pertinent that the Company had been collecting lease rent since September 2009 for the entire area of 4,135 sq ft of food court premises in the first floor, which included kitchen and storage areas. Though this lapse was pointed out during the Audit of the Company in September 2008, the Company neither made an amendment in the existing lease agreement, which was in force upto March 2010 nor corrected its omission in the new agreement entered into in April 2010 for the period of lease upto March 2013 (which was continued for another three months upto June 2013) with the same lessee. Consequently, the Company lost revenue of ₹85.64 lakh (as detailed in **Annexure-24**) during the lease period, which resulted in an unintended benefit to private lessee.

The Company replied (August 2015) that the conditions including rentable area mentioned in the lease deed, which was valid for six years upto March 2013, could not be changed before the expiry of the lease period. The reply is not tenable because the Company could have corrected the omission at the time of renewal of the agreement in April 2010.

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[106] Prior to this period, the food court area was leased out by the Company on revenue sharing basis between the Company and the lessee.

[107] Comprising of dining area: 10,150 sq.ft., kitchen area: 1,691 sq.ft. and storage area:769 sq.ft.

The matter was reported to the Government in June 2015; their reply was awaited (January 2016).

## Tamil Nadu Generation and Distribution Corporation Limited

### *4.9 Wasteful expenditure*

**Acceptance of a Gas Booster Compressor without verifying the operational risk and failure to document the authorisation for operation by the supplier as per the terms of the contract, led to an avoidable expenditure of ₹ 36.27 crore**

TANGEDCO commissioned (August 2009) 92.2 MW capacity Valuthur Gas Turbine Power Station Phase-II by awarding (May 2006) an Engineering, Procurement and Construction contract to BGR Energy Systems Limited (BGR) for a contract price of ₹ 355.53 crore. The Gas Booster Compressor (GBC), installed in this plant at the instance of BGR, was a reciprocating type[108] as against the centrifugal GBC[108] used in other gas based plants of TANGEDCO. The operation and maintenance of the unit was under the warranty of BGR for one year upto June 2010. As per the provisions of agreement, BGR was responsible for rectification of all the defects developed during warranty period, provided the operation of the plant was authorised by the Resident Engineer of BGR.

TANGEDCO noticed (between 1 and 4 January 2010) high vibration in the Gas Turbine (GT) with exhaust temperature beyond 750° Celsius due to escapement of oil in the GT. To ascertain the reasons for high vibration in the plant, both TANGEDCO and BGR jointly operated the unit from 5 January 2010 onwards, which led to major break-down of the GT on 9 January 2010.

TANGEDCO approached (9 January 2010) BGR to bring back the GT into service at their cost. However, BGR refused (June 2010) to bear the cost of repair stating that inappropriate operation of GT, resulting in its damage, was actually carried out by TANGEDCO. Subsequently, TANGEDCO carried out (November 2010) refurbishment of GT at a cost of ₹ 72.54 crore and put back the plant into service in May 2011.

To resolve the dispute of bearing the cost of the damage by BGR, TANGEDCO formed (November 2013) an expert committee, which concluded (March 2014) that the continued operations of GT, after the incidence of high exhaust temperature, was a serious operational lapse. The damage occurred due to lack of operational experience of both TANGEDCO and BGR and hence, both were jointly responsible for the damage. Consequently, TANGEDCO apportioned (July 2014) 50 *per cent* (₹ 36.27 crore) of the cost of damage to BGR and recovered the same in November 2014.

In this connection, Audit observed that:

108 In centrifugal GBC, lubrication was required only for the bearings, whereas in reciprocating GBC, continuous lubrication for movement of piston was essential, which may escape and contract with the natural gas during operation of GT.

(i) Though, TANGEDCO proposed in the tender to install the centrifugal GBC in this plant, installation of the reciprocating GBC on the pretext of cost savings of ₹ 1.45 crore *per annum* was done at the instance of BGR. The continued operation of GT from 5 to 9 January 2010 despite high vibration indicated that BGR did not possess the required skills for operating the GBC. The expert committee had also concluded that TANGEDCO and BGR lacked operational expertise in this type of GBC. Thus, TANGEDCO procured a new type of GBC, based on the recommendations of BGR, without analysing the associated risk.

(ii) BGR was obligated to rectify the defects to the GT during the warranty period. Even though TANGEDCO claimed that the entire operation of the plant during the periods of damage from 5 to 9 January 2010 was as per the guidance of the Resident Engineer of BGR, it failed to produce the documentary evidence of such authorisation, which resulted in BGR disowning its responsibility for bearing the cost of damage.

Thus, acceptance of a new type of GBC, recommended by the supplier, without verifying the operational risk and subsequent lapse of not documenting the joint operation of the plant during defective periods, led to an avoidable expenditure of ₹ 36.27 crore.

The Government replied (August 2015) that the equal sharing of cost of repair with BGR was due to the Committee's opinion that the continued operation of the plant despite noticing high vibration was an operational failure, for which the officials of TANGEDCO and BGR were jointly responsible. The reply is not convincing because operation of the plant during the period of damage was carried out as directed by the BGR's officials. Hence, the entire cost of damage should have been borne by BGR as per the contracted terms.

### *4.10 Avoidable delay*

**Due to delay of over five years in installation of by-pass system in a thermal unit, TANGEDCO could not reduce the operational expenditure to the extent of ₹ 7.35 crore**

The Tuticorin Thermal Power Station (TTPS) Unit-I (which has a generation capacity of 210 MW) was provided with High Pressure/Low Pressure (HP/LP) by-pass system to facilitate quick start-ups, faster loading of the thermal turbine and reduce start-up and shut down losses in the plant. Due to frequent failure of the by-pass system, the unit proposed (July 2008) to upgrade the by-pass system at a total cost of ₹ 2.50 crore. It was envisaged that the upgraded by-pass system would result in savings in operational cost to the extent of ₹ 1.47 crore *per annum*.

Audit noticed that, after obtaining (October 2010) administrative approval for the purchase of the by-pass system, purchase order (PO) was issued to a foreign supplier[109] in July 2012 at a cost of ₹ 2.28 crore. The complete system received in May 2014 was not installed in TTPS as of June 2015, as TANGEDCO could not synchronise installation of the by-pass system during

109 M/s CCIAG, Switzerland.

execution of overhauling of the unit for 20 days in July 2014.

Audit analysis of the avoidable delays in upgradation of by-pass system revealed the following:

- After receipt of the proposal in July 2008 from TTPS, TANGEDCO ascertained the satisfactory performance of the upgraded by-pass system in the thermal station in Punjab and Neyveli Lignite Corporation in December 2008/January 2009. But, TANGEDCO took 20 months (February 2009 to October 2010) to obtain administrative approval for the purchase, without any valid reason on record.
- TANGEDCO issued tender enquiry to the single tenderer in January 2011 and opened the tender in March 2011. However, the Board Level Tender Committee accorded approval for the purchase only in June 2012, taking 19 months for evaluation of the tender, which was far in excess of the time limit of three months fixed for evaluation of all types of tender.
- TANGEDCO opened the Letter of Credit (LoC) for the purchase in April 2013. As per the terms of the PO, the material was required to be supplied within six months from the date of LoC, *i.e.*, before October 2013. However, the supplier completed the supply in all respects only by May 2014, with a delay of six months. TANGEDCO, however, did not levy liquidated damages, which worked out to ₹ 0.23 crore (being 10 *per cent* of the contract value of ₹ 2.28 crore) as per the terms of PO.
- The by-pass system received in May 2014 was installed in TTPS, only in August 2015, because TANGEDCO could not synchronise its installation during execution of overhauling of the unit for 20 days in July 2014, as it failed to give advance communication to the supplier for such installation.

Thus, the by-pass system, which was considered essential for improved operation of TTPS Unit-I (July 2008), was put into operation only in August 2015. Consequently, TANGEDCO could not reap the benefits of installation, to the extent of ₹ 7.35 crore, for over five[110] years at the rate of ₹ 1.47 crore *per annum* and also kept the system, procured at a cost of ₹ 2.28 crore, idle for two years.

The Government replied (August 2015) that, even though the by-pass system was not installed, the same did not result in any loss as no outage occurred since 2008. The fact, however, remains that the envisaged benefits of the new by-pass system did not accrue because of its non-installation.

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[110] After ascertaining the satisfactory performance in January 2009, the system could have been installed in January 2010 (allowing three months each for administrative approval and finalisation of tender and six months for supply and erection of the system).

### *4.11 Loss of revenue*

**Inordinate delay in providing service connection resulted in foregoing potential revenue of ₹ 2.27 crore**

Section 43(1) of the Electricity Act, 2003, read with Regulation 4 of Tamil Nadu Electricity Distribution Standards of Performance Regulation, 2004 (Regulations) issued (September 2004) by the Tamil Nadu Electricity Regulatory Commission (TNERC), stipulate that the distribution licencee *viz*., TANGEDCO shall provide High Tension (HT) service connections within 30 days, whenever such service connection does not involve extension or improvement work.

Audit noticed (January 2015) that a HT service connection involving a maximum demand of 3,500 KVA was provided to a consumer[111] after a delay of 26 months from the date of receipt of the application (23 March 2011 upto 27 June 2013), against the TNERC stipulation of maximum period of 30 days. The delay forced the TNERC to impose (August 2012) a token penalty of ₹ 1,000 on TANGEDCO for violating the provisions of the Electricity Act.

Audit analysis of the controllable factors that contributed to the excess time taken for extension of HT service revealed as under:

- The consumer's application (March 2011) for HT service connection was returned (July 2011) raising objections on the ownership of the land intended for discharge of the effluent water.
- The consumer's second application (April 2012) was also not processed, insisting upon (June 2012) production of renewed pollution control certificate and to resolve the way-leave[112] problem for erecting 22 KV feeder in extending the supply to SBPL.
- On the consumer's complaint (June 2012), TNERC held that the objections raised by TANGEDCO were not valid and directed (August 2012) it to extend the service connection from the existing wind farm feeder. However, TANGEDCO actually effected the service connection only on 27 June 2013, after further delay of eight months.

Audit observed that as per the Regulation of the Tamil Nadu Electricity Distribution Code (Distribution Code), it was not the responsibility of TANGEDCO to ascertain the validity or adequacy of the way-leave license or obtaining the permission for entering into the premises by the intending consumer, which was the sole responsibility of the consumer. Even after receiving directions from TNERC for effecting the service connection from the existing wind farm feeder in August 2012, TANGEDCO further delayed the service connection and provided the same only in June 2013, which ultimately resulted in overall delay of about 24 months and foregoing of potential revenue of ₹ 2.27 crore[113].

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111 M/s Srinivasa Balaji Papers (Private) Limited (SBPL).

112 Way-leave is an approach path for erecting the feeder.

113 Demand charges of ₹ 300 per KVA per month X 24 months recoverable from the consumer for 90 *per cent* of the maximum demand, *i.e.*, 3,500 X 90 *per cent* = 3,150 KVA.

The Government replied (September 2015) that delay was on account of the consumer not providing documents proving legal occupation of land, pollution control certificate, *etc.* The reply is not convincing because delays had occurred due to observations by TANGEDCO on subjects, which were not under its purview, resulting in foregoing of potential revenue.

Chennai
The 21 March 2016

(ALKA REHANI BHARDWAJ)
Accountant General
(Economic and Revenue Sector Audit),
Tamil Nadu

Countersigned

New Delhi
The 22 March 2016

(SHASHI KANT SHARMA)
Comptroller and Auditor General of India

# ANNEXURES

## 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 Tea Plantation Corporation Limited (TANTEA) | 2013-14 | 9.96 | 2014-15 | 5.00 | --- | 0.60 |
| 2. | Tamil Nadu Small Industries Development Corporation Limited (SIDCO) | 2013-14 | 24.70 | 2014-15 | --- | --- | 0.14 |
| 3. | Tamil Nadu Adi Dravidar Housing and Development Corporation Limited (TAHDCO) | 2012-13 | 108.38 | 2013-14 | 19.90 | --- | --- |
| 4. | Tamil Nadu Corporation of Development of Women Limited (TN Women) | 2013-14 | 0.78 | 2014-15 | --- | --- | 12.05 |
| 5. | Tamil Nadu Rural Housing and Infrastructure Development Corporation Limited (TN Rural Housing) | 2012-13 | 3.00 | 2014-15 | --- | --- | 21.79 |
| 6. | TNEB Limited | 2013-14 | 11,064.07 | 2014-15 | 4,300.62 | --- | --- |
| 7. | Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) | 2013-14 | 8,028.34 | 2014-15 | --- | 6,223.16 | --- |
| 8. | Tamil Nadu Civil Supplies Corporation Limited (TNCSC) | 2013-14 | 59.86 | 2014-15 | 4.88 | --- | 4.88 |
| 9. | Tamil Nadu Skill Development Corporation Limited (TNSDC) | 2013-14 | 0.05 | 2014-15 | 0.05 | --- | 0.05 |
| | **TOTAL** | | **19,299.14** | | **4,330.15** | **6,223.16** | **40.51** |

# 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 | 135 |
| 2. | Tamil Nadu Forest Plantation Corporation Limited (TAFCORN) | 2014-15 | 2015-16 | 5.64 | --- | 164.50 | 70.17 | 20.13 | | 184.07 | 20.46 | 11.12 | 331 |
| 3. | Tamil Nadu Tea Plantation Corporation Limited (TANTEA) | 2013-14 | 2014-15 | 9.96 | 15.18 | (-)24.22 | 76.97 | (-)2.31 | | (-)1.04 | (-)1.15 | --- | 5,541 |
| 4. | Arasu Rubber Corporation Limited (ARC) | 2014-15 | 2015-16 | 8.45 | --- | 5.28 | 28.48 | (-)8.75 | | 28.69 | (-)8.75 | --- | 1,375 |
| | **Sector-wise total** | | | **28.51** | **15.21** | **158.91** | **662.06** | **14.35** | | **247.69** | **15.86** | **6.40** | **7,382** |
| | **FINANCE** | | | | | | | | | | | | |
| 5. | Tamil Nadu Industrial Investment Corporation Limited (TIIC) | 2014-15 | 2015-16 | 321.00 | 467.19 | (-)8.10 | 212.07 | 25.73 | | 937.27 | 149.34 | 15.93 | 476 |
| 6. | Tamil Nadu Handloom Development Corporation Limited (TN Handloom) | 2014-15 | 2015-16 | 4.29 | 2.17 | (-)1.90 | 12.77 | 0.13 | | 4.56 | 0.73 | 16.01 | 8 |
| 7. | Tamil Nadu Small Industries Development Corporation Limited (TN SIDCO) | 2013-14 | 2014-15 | 24.70 | --- | 77.08 | 66.66 | 1.47 | | 101.78 | 2.73 | 2.68 | 344 |

| 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) |
| 8. | Tamil Nadu Adi-dravidar Housing and Development Corporation Limited (TAHDCO) | 2012-13 | 2014-15 | 108.38 | 0.11 | 36.51 | 16.16 | 2.29 | | 169.02 | 2.99 | 1.77 | 285 |
| 9. | Tamil Nadu Transport Development Finance Corporation Limited (TDFC) | 2014-15 | 2015-16 | 61.74 | --- | 88.76 | 185.38 | 5.30 | | 1,224.21 | 179.10 | 14.63 | 23 |
| 10. | Tamil Nadu Backward Classes Economic Development Corporation Limited (TABCEDCO) | 2013-14 | 2014-15 | 12.27 | --- | 16.79 | 4.81 | 2.90 | | 120.77 | 5.45 | 4.51 | 18 |
| 11. | Tamil Nadu Corporation for Development of Women Limited (TN Women) | 2013-14 | 2015-16 | 0.78 | --- | 18.51 | 126.82 | 4.40 | | 19.65 | 4.40 | 22.39 | 548 |
| 12. | Tamil Nadu Urban Finance and Infrastructure Development Corporation Limited (TUFIDCO) | 2013-14 | 2014-15 | 32.00 | 72.56 | 67.27 | 40.01 | 3.42 | | 235.51 | 21.47 | 9.12 | 29 |
| 13. | Tamil Nadu Minorities Economic Development Corporation Limited (TAMCO) | 2012-13 | 2014-15 | 2.05 | --- | 9.21 | 6.18 | 4.03 | | 81.82 | 5.07 | 6.20 | 6 |
| | **Sector-wise total** | | | **567.21** | **542.03** | **304.13** | **670.86** | **49.67** | | **2,894.59** | **371.28** | **12.83** | **1,737** |
| | **INFRASTRUCTURE** | | | | | | | | | | | | |
| 14. | Tamil Nadu Industrial Development Corporation Limited (TIDCO) | 2014-15 | 2015-16 | 72.03 | 137.14 | 264.99 | 82.44 | 56.99 | | 457.14 | 81.95 | 17.93 | 52 |
| 15. | 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 | 216 |
| 16. | Tamil Nadu Police Housing Corporation Limited (TN Police Housing) | 2014-15 | 2015-16 | 1.00 | --- | 33.36 | 37.74 | 8.67 | | 34.36 | 8.69 | 25.29 | 357 |
| 17. | TIDEL Park Limited (TIDEL, Chennai) | 2013-14 | 2014-15 | 44.00 | --- | 262.46 | 60.49 | 43.43 | | 310.16 | 43.43 | 14.00 | 38 |

| 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) |
| 18. | Tamil Nadu Rural Housing and Infrastructure Development Corporation Limited (TN Rural Housing) | 2012-13 | 2014-15 | 3.00 | 720.37 | 1.08 | --- | 0.32 | | 28.76 | 0.32 | 1.11 | --- |
| 19. | Nilakottai Food Park Limited (Nilakottai) | 2013-14 | 2014-15 | 0.68 | --- | (-)0.10 | --- | 0.04 | | 0.58 | 0.04 | 6.90 | --- |
| 20. | Guindy Industrial Estate Infrastructure Upgradation Company (Guindy Estate) | 2013-14 | 2014-15 | 0.01 | --- | --- | --- | --- | | 0.01 | 0.12 | 1200.00 | 1 |
| 21 | Tamil Nadu Road Infrastructure Development Corporation (TN Road Infrastructure) | 2014-15 | 2015-16 | 5.00 | --- | 1.82 | 1.51 | 0.55 | | 6.82 | 0.55 | 8.06 | 3 |
| 22 | Tamil Nadu Road Development Company Limited (TNRDC) | 2014-15 | 2015-16 | 10.00 | 28.50 | 24.31 | 22.54 | 5.11 | | 90.78 | 6.62 | 7.29 | 67 |
| 23. | IT Expressway | 2014-15 | 2015-16 | 44.05 | 160.00 | 6.98 | 51.54 | 7.20 | | 236.88 | 23.69 | 10.00 | 46 |
| 24. | TIDEL Park Coimbatore Limited (TIDEL,Coimbatore) | 2013-14 | 2014-15 | 133.00 | 284.84 | (-)37.63 | 18.26 | (-)16.10 | | 464.30 | 0.16 | 0.03 | 14 |
| 25. | Adyar Poonga | 2014-15 | 2015-16 | 0.10 | --- | --- | --- | --- | | 0.10 | --- | --- | 10 |
| 26. | TICEL Bio Park Limited (TICEL Bio Park) | 2014-15 | 2015-16 | 89.00 | 45.87 | 7.35 | 13.79 | (-)0.40 | | 158.33 | 0.33 | 0.21 | 12 |
| | **Sector-wise total** | | | **525.78** | **1,376.72** | **1,363.55** | **765.48** | **193.02** | | **2,733.22** | **253.11** | **9.26** | **816** |
| | **MANUFACTURING** | | | | | | | | | | | | |
| 27. | Tamil Nadu Small Industries Corporation Limited (TANSI) | 2013-14 | 2014-15 | 20.00 | --- | 74.48 | 99.76 | 10.00 | | 290.64 | 11.41 | 3.93 | 100 |
| 28. | Tamil Nadu Textiles Corporation Limited (TN Textiles) | 2014-15 | 2015-16 | 1.54 | 4.93 | (-)1.85 | 13.20 | 0.38 | | 5.36 | 0.95 | 17.72 | 138 |
| 29. | Tamil Nadu Zari Limited (TN Zari) | 2013-14 | 2014-15 | 0.34 | 0.25 | 2.43 | 21.74 | 0.30 | | 3.17 | 0.33 | 10.41 | 93 |

| 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) |
| 30. | Tamil Nadu Handicrafts Development Corporation Limited (TN Handicrafts) | 2014-15 | 2015-16 | 3.22 | --- | 4.45 | 33.94 | 0.47 | | 8.88 | 0.47 | 5.29 | 135 |
| 31. | Tamil Nadu Salt Corporation Limited (TN Salt) | 2014-15 | 2015-16 | 6.34 | --- | 9.13 | 30.44 | 0.31 | | 15.70 | 0.31 | 1.97 | 61 |
| 32. | Tamil Nadu Sugar Corporation Limited (TASCO) | 2014-15 | 2015-16 | 80.59 | 89.63 | (-)117.90 | 106.44 | (-)18.20 | | (-)1.25 | (-)13.59 | --- | 296 |
| 33. | Tamil Nadu Cements Corporation Limited (TANCEM) | 2013-14 | 2014-15 | 37.42 | --- | (-)28.67 | 207.75 | (-)9.66 | | 8.75 | (-)7.14 | --- | 601 |
| 34. | Perambalur Sugar Mills Limited (PSM) (subsidiary of TASCO) | 2014-15 | 2015-16 | 37.62 | 92.37 | (-)193.17 | 82.58 | (-)24.48 | | (-)82.42 | (-)15.43 | --- | 206 |
| 35. | Tamil Nadu Minerals Limited (TAMIN) | 2014-15 | 2015-16 | 15.74 | --- | 100.93 | 155.10 | 14.44 | | 116.67 | 14.86 | 12.74 | 1,271 |
| 36. | Tamil Nadu Magnesite Limited (TANMAG) | 2014-15 | 2015-16 | 16.65 | 31.96 | 28.56 | 109.91 | 15.22 | | 45.21 | 20.34 | 44.99 | 369 |
| 37. | Tamil Nadu Industrial Explosives Limited (TIEL) | 2014-15 | 2015-16 | 27.03 | 45.62 | (-)141.31 | 41.53 | (-)14.49 | | (-)96.25 | (-)10.49 | --- | 395 |
| 38. | Tamil Nadu Medicinal Plant Farms and Herbal Medicine Corporation Limited (TAMPCOL) | 2014-15 | 2015-16 | 3.00 | --- | 11.54 | 24.00 | 0.75 | | 15.86 | 0.75 | 4.73 | 103 |
| 39. | Tamil Nadu Paints and Allied Products Limited (TAPAP) | 2014-15 | 2015-16 | 0.02 | --- | 1.81 | 1.67 | 0.16 | | 1.83 | 0.23 | 12.57 | --- |
| 40. | Tamil Nadu Newsprint and Papers Limited (TNPL) | 2014-15 | 2015-16 | 69.38 | 1,590.38 | 999.65 | 2,135.73 | 166.73 | | 2,570.81 | 321.66 | 12.51 | 2,103 |
| | **Sector-wise total** | | | **318.89** | **1,855.14** | **750.08** | **3,063.79** | **141.93** | | **2,902.96** | **324.66** | **11.18** | **5,871** |
| | **POWER** | | | | | | | | | | | | |
| 41. | Tamil Nadu Power Finance and Infrastructure Development Corporation Limited (TN Powerfin) | 2014-15 | 2015-16 | 90.00 | --- | 382.38 | 1,574.20 | 105.78 | | 8,975.34 | 1,441.58 | 16.06 | 23 |

| 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) |
| 42. | Udangudi Power Corporation Limited (Udangudi Power) | 2014-15 | 2015-16 | 65.00 | --- | 0.56 | --- | --- | | 65.56 | --- | --- | 23 |
| 43. | TNEB Limited | 2013-14 | 2014-15 | 11,064.07 | --- | (-)0.60 | --- | (-)0.18 | | 11,063.47 | (-)0.18 | --- | --- |
| 44. | Tamil Nadu Transmission Corporation Limited (TANTRANSCO) | 2013-14 | 2014-15 | 3,009.89 | 8,357.90 | (-)2,487.38 | 2,764.95 | 1,308.03 | | 10,616.73 | 1,808.01 | 17.03 | --- |
| 45. | Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) | 2013-14 | 2014-15 | 8,028.34 | 73,573.49 | (-)52,465.51 | 34,521.48 | (-)13,985.03 | | 16,778.69 | (-)7,205.25 | --- | 90,060 |
| | **Sector-wise total** | | | **22,257.30** | **81,931.39** | **(-)54,570.55** | **38,860.63** | **(-)12,571.40** | | **47,499.79** | **(-)3,955.84** | **---** | **90,083** |
| | **SERVICE** | | | | | | | | | | | | |
| 46. | Tamil Nadu Tourism Development Corporation Limited (TTDC) | 2014-15 | 2015-16 | 10.43 | 15.89 | 37.99 | 98.50 | 2.21 | | 71.10 | 2.22 | 3.12 | 428 |
| 47. | Tamil Nadu Civil Supplies Corporation Limited (TNCSC) | 2013-14 | 2015-16 | 59.86 | --- | --- | 8,731.25 | --- | | 132.41 | 57.16 | 43.17 | 15,045 |
| 48. | Poompuhar Shipping Corporation Limited (PSC) | 2013-14 | 2014-15 | 20.53 | --- | 9.32 | 665.80 | 4.34 | | 29.85 | 4.77 | 15.98 | 119 |
| 49. | Electronics Corporation of Tamil Nadu Limited (ELCOT) | 2014-15 | 2015-16 | 25.93 | 0.12 | 48.70 | 23.24 | 19.21 | | 209.26 | 30.56 | 14.60 | 148 |
| 50. | Overseas Manpower Corporation Limited (OMPC) | 2013-14 | 2014-15 | 0.15 | --- | 0.22 | 1.02 | 0.06 | | 0.37 | 0.06 | 16.22 | 11 |
| 51. | Tamil Nadu Skill Development Corporation Limited (TNSDC) | 2013-14 | 2015-16 | 0.05 | --- | 0.26 | --- | 0.12 | | 0.31 | 0.12 | 38.71 | 9 |
| 52. | Tamil Nadu State Marketing Corporation Limited (TASMAC) | 2012-13 | 2013-14 | 15.00 | --- | (-)100.92 | 24,818.57 | (-)99.36 | | (-)70.19 | (-)72.38 | --- | 26,540 |
| 53. | Pallavan Transport Consultancy Services Limited (PTCS) | 2014-15 | 2015-16 | 0.10 | --- | (-)1.14 | 0.22 | (-)0.28 | | (-)1.04 | (-)0.28 | --- | 9 |
| 54. | Tamil Nadu Medical Services Corporation Limited (TN Medical) | 2014-15 | 2015-16 | 4.04 | --- | 14.63 | 33.52 | 0.11 | | 31.24 | 0.11 | 0.35 | 438 |

| 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) |
| 55. | Tamil Nadu Ex-servicemen's Corporation Limited (TEXCO) | 2013-14 | 2014-15 | 0.23 | --- | 78.30 | 125.29 | 13.07 | | 78.53 | 13.07 | 16.64 | 92 |
| 56. | Metropolitan Transport Corporation Limited (MTC) | 2014-15 | 2015-16 | 541.44 | 77.58 | (-)2,002.88 | 1,313,67 | (-)392.68 | | (-)1,396.90 | (-)313.14 | --- | 22,633 |
| 57. | State Express Transport Corporation Limited (SETC) | 2014-15 | 2015-16 | 303.35 | 171.03 | (-)1,459.40 | 543.12 | (-)195.66 | | (-)903.44 | (-)125.73 | --- | 6,765 |
| 58. | Tamil Nadu State Transport Corporation (Coimbatore) Limited (TNSTC, Coimbatore) | 2014-15 | 2015-16 | 324.25 | 189.76 | (-)2,035.46 | 1,119.84 | (-)431.45 | | (-)1,557.82 | (-)350.69 | --- | 18,701 |
| 59. | Tamil Nadu State Transport Corporation (Kumbakonam) Limited (TNSTC, Kumbakonam) | 2014-15 | 2015-16 | 309.39 | 69.15 | (-)1,621.10 | 1,483.78 | (-)390.96 | | (-)1,155.68 | (-)313.53 | --- | 24,306 |
| 60. | Tamil Nadu State Transport Corporation (Salem) Limited (TNSTC, Salem) | 2014-15 | 2015-16 | 152.93 | 148.73 | (-)1,198.58 | 831.53 | (-)271.91 | | (-)974.49 | (-)226.72 | --- | 14,553 |
| 61. | Tamil Nadu State Transport Corporation (Villupuram) Limited (TNSTC, Villupuram) | 2014-15 | 2015-16 | 229.05 | 119.35 | (-)1,243.59 | 1,447.97 | (-)334.19 | | (-)917.44 | (-)285.47 | --- | 23,452 |
| 62. | Tamil Nadu State Transport Corporation (Madurai) Limited (TNSTC, Madurai) | 2014-15 | 2015-16 | 500.15 | 58.57 | (-)2,149.42 | 950.25 | (-)296.86 | | (-)1,524.56 | (-)253.82 | --- | 15,014 |
| 63. | Tamil Nadu State Transport Corporation (Tirunelveli) Limited (TNSTC, Tirunelveli) | 2014-15 | 2015-16 | 110.66 | 30.27 | (-)1,835.27 | 651.62 | (-)340.29 | | (-)1,479.36 | (-)249.97 | --- | 12,915 |
| 64. | Arasu Cable TV Corporation Limited (Arasu Cable TV) | 2014-15 | 2015-16 | 25.00 | 21.15 | 12.18 | 176.71 | 18.46 | | 61.69 | 20.69 | 33.54 | 771 |
| | **Sector-wise total** | | | **2,632.54** | **901.60** | **(-)13,446.16** | **43,015.90** | **(-)2,696.06** | | **(-)9,366.16** | **(-)2,062.97** | **---** | **1,81,949** |
| | **Total A (All sector-wise working Government Companies)** | | | **26,330.23** | **86,622.09** | **(-)65,440.04** | **87,038.72** | **(-)14,868.49** | | **46,912.09** | **(-)5,053.90** | | **2,87,838** |

| 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) |
| **B.** | **Working Statutory Corporations** | | | | | | | | | | | | |
| | **SERVICE** | | | | | | | | | | | | |
| 1. | Tamil Nadu Warehousing Corporation (TANWARE) | 2013-14 | 2014-15 | 7.61 | --- | 79.87 | 44.64 | 15.04 | | 87.48 | 15.04 | 17.19 | 297 |
| | **Sector-wise total** | | | | **---** | **79.87** | **44.64** | **15.04** | | **87.48** | **15.04** | **17.19** | **297** |
| | **Total B (All sector-wise working Statutory Corporations)** | | | **7.61** | **---** | **79.87** | **44.64** | **15.04** | | **87.48** | **15.04** | **17.19** | **297** |
| | **Grand total (A+B)** | | | **26,337.84** | **86,622.09** | **(-)65,360.17** | **87,083.36** | **(-)14,853.45** | | **46,999.57** | **(-)5,038.86** | **---** | **2,88,135** |
| **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 | --- | --- | --- |
| 3. | Tamil Nadu Sugarcane Farms Corporation Limited (TN Sugarcane) | 2013-14 | 2014-15 | 0.28 | --- | (-)0.28 | --- | --- | | --- | --- | --- | --- |
| | **Sector-wise total** | | | **7.56** | **20.96** | **(-)90.27** | **---** | **(-)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 | Percentage of return on capital employed | Man-power |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) |
| | **INFRASTRUCTURE** | | | | | | | | | | | | |
| 4. | 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 | --- | --- |
| | **Sector-wise total** | | | **5.00** | **1.00** | **(-)26.44** | **---** | **(-)6.48** | | **80.14** | **(-)5.52** | **---** | **---** |
| | **MANUFACTURING** | | | | | | | | | | | | |
| 5. | Southern Structurals Limited (SSL) | 2013-14 | 2015-16 | 34.54 | 70.85 | (-)234.63 | --- | (-)11.05 | | (-)196.20 | (-)0.15 | --- | --- |
| 6. | State Engineering and Servicing Company of Tamil Nadu Limited (SESCOT) (subsidiary of TANSI) | 2014-15 | 2015-16 | 0.50 | 12.14 | (-)13.05 | --- | (-)0.74 | | 0.02 | (-)0.01 | --- | --- |
| | **Sector-wise total** | | | **35.04** | **82.99** | **(-)247.68** | **---** | **(-)11.79** | | **(-)196.18** | **(-)0.16** | | |
| | **SERVICE** | | | | | | | | | | | | |
| 7. | Tamil Nadu Goods Transport Corporation Limited (TN Goods) | 1989-90 | | 0.33 | --- | (-)1.33 | --- | --- | | (-)0.30 | 0.07 | (-)23.33 | --- |
| | **Sector-wise total** | | | **0.33** | **---** | **(-)1.33** | **---** | **---** | | **(-)0.30** | **0.07** | **(-)23.33** | **---** |
| | **Total C (All sector-wise non-working Government companies)** | | | **47.93** | **104.95** | **(-)365.72** | **---** | **(-)21.00** | | **(-)99.51** | **(-)4.70** | **---** | **---** |
| | **Grand total (A+B+C)** | | | **26,385.77** | **86,727.04** | **(-)65,725.89** | **87,083.36** | **(-)14,874.45** | **---** | **46,900.06** | **(-)5,043.56** | **---** | **---** |

**NOTE:**

1. Loans outstanding at the close of 2014-15 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 (December 2015).

# ANNEXURE – 3
## Statement showing financial position of TASCO and PSM
***(Referred to in paragraph 2.1.7)***

**(₹ in crore)**

| Particulars | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | 2014-15 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | TASCO | PSM | TASCO | PSM | TASCO | PSM | TASCO | PSM | TASCO | PSM |
| **Liabilities** | | | | | | | | | | |
| Share Capital | 80.21 | 37.62 | 80.59 | 37.62 | 80.59 | 37.62 | 80.59 | 37.62 | 80.59 | 37.62 |
| Reserves and Surplus | (-) 76.21 | (-) 128.34 | (-) 79.63 | (-) 135.70 | (-) 74.38 | (-) 144.55 | (-) 99.70 | (-) 168.14 | (-)117.90 | (-)192.62 |
| Borrowings | 96.33 | 145.94 | 82.71 | 153.24 | 64.59 | 180.58 | 54.15 | 192.67 | 36.05 | 187.57 |
| Current liabilities and provisions | 69.65 | 28.18 | 93.72 | 42.16 | 114.79 | 39.75 | 132.42 | 45.95 | 148.60 | 46.69 |
| **TOTAL** | **169.98** | **83.4** | **177.39** | **97.32** | **185.6** | **113.4** | **167.46** | **108.1** | **147.34** | **79.26** |
| **Assets** | | | | | | | | | | |
| Gross Block | 35.59 | 34.75 | 35.89 | 35.45 | 36.54 | 36.42 | 37.14 | 36.88 | 37.52 | 37.83 |
| Less: Depreciation | 29.78 | 27.27 | 30.24 | 27.88 | 30.63 | 28.47 | 31.06 | 29.03 | 31.79 | 29.92 |
| Net Block | **5.81** | **7.48** | **5.65** | **7.57** | **5.91** | **7.95** | **6.08** | **7.85** | **5.73** | **7.91** |
| Investments | 36.3 | 0.05 | 36.3 | 0.05 | 36.3 | 0.05 | 36.3 | 0.05 | 36.3 | 0.05 |
| **Current assets:** | | | | | | | | | | |
| Inventories | 53.78 | 42.03 | 67.87 | 53.14 | 86.47 | 61.67 | 78.76 | 56.82 | 27.57 | 20.42 |
| Receivables | 1.29 | 0.11 | 0.13 | 0.11 | 1.31 | 1.54 | 4.44 | 1.88 | 3.90 | 2.52 |
| Cash and cash equivalent | 55.02 | 20.59 | 48.66 | 20.84 | 34.84 | 23.51 | 22.77 | 27.39 | 50.06 | 26.11 |
| Other current assets | 4.61 | 12.92 | 4.7 | 15.43 | 6.32 | 18.49 | 5.29 | 13.88 | 10.25 | 22.03 |
| Loans and advances | 13.17 | 0.22 | 14.08 | 0.18 | 14.45 | 0.19 | 13.82 | 0.23 | 13.53 | 0.22 |
| **TOTAL** | **169.98** | **83.4** | **177.39** | **97.32** | **185.6** | **113.4** | **167.46** | **108.1** | **147.34** | **79.26** |

**Source: Annual Reports of the companies**

# ANNEXURE-4

## Statement showing working results of TASCO and PSM

*(Referred to in paragraph 2.1.7)*

**(₹ in crore)**

| Particulars | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | 2014-15 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | TASCO | PSM | TASCO | PSM | TASCO | PSM | TASCO | PSM | TASCO | PSM |
| **Income** | | | | | | | | | | |
| Revenue from operation | 82.91 | 48.43 | 95.17 | 84.77 | 104.65 | 85.49 | 113.93 | 92.45 | 106.44 | 82.58 |
| Other income | 15.92 | 10.91 | 5.57 | 1.75 | 4.84 | 3.99 | 3.24 | 2.54 | 10.21 | 8.05 |
| **Total** | **98.83** | **59.34** | **100.74** | **86.52** | **109.49** | **89.48** | **117.17** | **94.99** | **116.65** | **90.63** |
| **Expenditure** | | | | | | | | | | |
| Cost of material consumed | 65.9 | 41.71 | 87.37 | 78.22 | 92.55 | 77.49 | 105.55 | 84.82 | 58.4 | 51.96 |
| Purchase of other materials | 1.7 | 1.06 | 1.67 | 1.88 | 1.04 | 0.93 | 0.15 | 0.09 | 0.08 | 0.31 |
| Change in inventories | (-)12.02 | (-)7.19 | (-)13.65 | (-)11.11 | (-)18.50 | (-)8.53 | 6.65 | 4.85 | 51.12 | 36.41 |
| Employee cost | 12.84 | 11.48 | 14.44 | 11.42 | 14.58 | 13.24 | 14.82 | 11.71 | 14.49 | 11.62 |
| Finance cost | 4.9 | 5.88 | 5.03 | 7.02 | 5.01 | 8.19 | 4.9 | 9.85 | 4.61 | 9.19 |
| Depreciation | 0.56 | 0.58 | 0.47 | 0.6 | 0.47 | 0.6 | 0.48 | 0.56 | 0.98 | 0.89 |
| Other expenditure | 7.68 | 4.69 | 8.46 | 5.84 | 9.08 | 6.41 | 9.95 | 6.71 | 5.17 | 4.72 |
| **Total** | **81.56** | **58.21** | **103.79** | **93.88** | **104.23** | **98.33** | **142.49** | **118.58** | **134.85** | **115.10** |
| **Profit/Loss(-)** | **17.27** | **1.13** | **(-)3.04** | **(-)7.36** | **5.26** | **(-)8.85** | **(-)25.32** | **(-)23.59** | **(-)18.20** | **(-)24.47** |

**Source: Annual Reports of the companies**

# ANNEXURE-5

## Statement showing details of the target area fixed *vis- a-vis.*, area actually registered

*(Referred to in paragraph 2.1.9)*

| Particulars | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | 2014-15 | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | TASCO | PSM | TASCO | PSM | TASCO | PSM | TASCO | PSM | TASCO | PSM | |
| Capacity of the Mill (in lakh MT) | 4.3 | 5.16 | 4.3 | 5.16 | 4.3 | 5.16 | 4.3 | 5.16 | 4.30 | 5.16 | |
| Average yield obtained in earlier season (In MT per acre) | 33.8 | 32 | 28.18 | 28 | 28.47 | 33 | 36.15 | 32 | 29.95 | 26.28 | |
| Targeted Area (In acre) | 13,500 | 14,000 | 13,000 | 14,000 | 14,000 | 14,000 | 14,800 | 15,400 | 13,500 | 14,000 | |
| Expected sugarcane availability (in MT) | 4,56,300 | 4,48,000 | 3,66,340 | 3,92,000 | 3,98,580 | 4,62,000 | 5,35,020 | 4,92,800 | 4,04,325 | 3,67,920 | |
| Area registered (In acre) | 14,780 | 10,357 | 13,586 | 9,094 | 13,136 | 13,455 | 11,701 | 10,590 | 9539 | 10,899 | |
| Total shortfall in registration (In acre) | 0 | 3,643 | 0 | 4,906 | 864 | 545 | 3,099 | 4,810 | 3,961 | 3,101 | |
| Total shortfall (In *per cent*) | | 26 | | 35 | 6 | 4 | 21 | 31 | 29 | 22 | |
| Total shortfall in sugarcane availability (in MT) | 0 | 1,16,576 | 0 | 1,37,368 | 24,598 | 17,985 | 1,12,028 | 1,53,920 | 1,18,632 | 81,494 | 7,62,601 |

**Source: Details furnished by the companies**

## ANNEXURE-6

### Statement showing shortfall in procurement of sugarcane in TASCO and PSM

***(Referred to in paragraph 2.1.13)***

| Sl.No. | Particulars | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | 2014-15 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | TASCO | PSM | TASCO | PSM | TASCO | PSM | TASCO | PSM | TASCO | PSM |
| 1 | Sugarcane required for 100 *per cent* installed capacity (In MT) | 4,30,000 | 5,16,000 | 4,30,000 | 5,16,000 | 4,30,000 | 5,16,000 | 4,30,000 | 5,16,000 | 4,30,000 | 5,16,000 |
| 2 | Target fixed for procurement (In MT) | 4,00,000 | 3,35,000 | 4,30,000 | 4,30,000 | 4,30,000 | 4,00,000 | 4,81,000 | 2,35,000 | 4,30,000 | 3,25,000 |
| 3 | Average yield obtained per acre (In MT) | 28.47 | 33.28 | 36.15 | 46.50 | 29.95 | 26.28 | 28.89 | 26.46 | 30.00 | 30.09 |
| 4 | State average yield obtained per acre (In MT) | 43.87 | 43.87 | 45.08 | 45.08 | 37.23 | 37.23 | 43.3 | 43.3 | NA | NA |
| 5 | Sugarcane procured from own area (In MT) | 4,06,077 | 3,38,335 | 3,51,967 | 2,84,376 | 3,70,159 | 2,83,137 | 3,36,105 | 2,76,840 | 2,93,049 | 2,66,956 |
| 6 | Cane procured from other mills (In MT) | 215 | 7050 | 0 | 0 | 142 | 0 | 929 | 8389 | 1787 | 776 |
| 7 | Sugarcane diverted (In MT) | 6,688 | 6,340 | 1,39,104 | 1,38,523 | 23,289 | 70,489 | 1,961 | 3,364 | 64,739 | 67,181 |
| 8 | Total sugarcane developed (In MT) (5+7) | 4,12,765 | 3,44,675 | 4,91,071 | 4,22,899 | 3,93,448 | 3,53,626 | 3,38,066 | 2,80,204 | 357788 | 3,28,127 |
| 9 | Shortfall in Sugarcane procurement (In MT) (1-(5+6)) | 23,708 | 1,70,615 | 78,033 | 2,31,624 | 59,699 | 2,32,863 | 92,966 | 2,30,771 | 1,35,164 | 2,54,258 |
| 10 | Shortfall (In *per cent*) | 5.51 | 33.06 | 18.15 | 44.89 | 13.88 | 45.13 | 21.62 | 44.72 | 31.43 | 49.27 |
| 11 | Capacity utilisation (*In per cent*) | 94.43 | 66.94 | 81.85 | 55.11 | 86.12 | 54.87 | 78.16 | 55.28 | 68.60 | 50.77 |
| 12 | Contribution foregone (₹ in crore) | 1.13 | 5.13 | 3.65 | 11.32 | 3.53 | 0 | 0.56 | 0 | 0 | 0 |
| | | | | | | | | | | | 25.32 |

**Source: Details furnished by the companies**

## ANNEXURE-7

### Statement showing fall in sugar recovery rate of TASCO and PSM

*(Referred to in paragraph 2.1.19)*

| Particulars | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | 2014-15 | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Crushing season** | **TASCO** | **PSM** | **TASCO** | **PSM** | **TASCO** | **PSM** | **TASCO** | **PSM** | **TASCO** | **PSM** | |
| Cane crushed (In lakh MT) | 4.06 | 3.45 | 3.52 | 2.84 | 3.7 | 2.83 | 3.37 | 2.85 | 2.95 | 2.62 | |
| Budgeted recovery rate (In *per cent*) | 9.5 | 9.15 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9 | 9 | 9 | |
| Actual sugar recovery rate (In *per cent*) | 8.74 | 8.79 | 8.6 | 8.6 | 8.43 | 8.71 | 8.08 | 7.85 | 7.05 | 7.6 | |
| Shortfall (In *per cent*) | 0.76 | 0.36 | 0.9 | 0.9 | 1.07 | 0.79 | 1.42 | 1.15 | 1.95 | 1.4 | |
| Shortfall in sugar production (In Quintal) | 30,878 | 12,434 | 31,677 | 25,594 | 39,622 | 22,368 | 47,858 | 47,065 | 57,493 | 49,731 | 36,472 |
| Average realisation of sugar (₹ per Quintal) | 2,805 | 2,709 | 2,943 | 2,815 | 3,182 | 3,249 | 3,093 | 3,054 | 3,023 | 3,126 | |
| Additional revenue foregone (₹ in crore) | 8.66 | 3.37 | 9.32 | 7.20 | 12.61 | 7.27 | 14.80 | 14.37 | 17.38 | 15.55 | 110.53 |

**Source: Details furnished by the companies**

# ANNEXURE-8

## Statement showing excess consumption of steam in TASCO and PSM

*(Referred to in paragraph 2.1.23)*

| Particulars | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | 2014-15 | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Crushing Season | TASCO | PSM | TASCO | PSM | TASCO | PSM | TASCO | PSM | TASCO | PSM | |
| Steam used for processing (in MT) | 1,09,217 | 96,070 | 95,214 | 79,270 | 1,05,260 | 80,161 | 90,725 | 77,445 | 77,068 | 73,259 | |
| Percentage of Steam used for processing | 57.00 | 55.00 | 56.70 | 55.00 | 57.00 | 55.15 | 57.00 | 55.16 | 52.72 | 55.15 | |
| Steam used for power generation (In MT) | 82,390 | 78,128 | 72,705 | 64,465 | 79,408 | 65,190 | 68,440 | 62,981 | 6,9104 | 59,576 | |
| Power to be generated (Units) | 82,39,000 | 78,12,800 | 72,70,500 | 64,46,500 | 79,40,800 | 65,19,000 | 68,44,000 | 62,98,100 | 69,10,400 | 59,57,600 | |
| Power generated (Units) | 78,08,070 | 73,91,940 | 68,61,581 | 56,49,960 | 73,97,560 | 53,01,120 | 66,37,476 | 49,79,040 | 68,97,956 | 48,67,200 | |
| Shortfall in power generation (Units) | 4,30,930 | 4,20,860 | 4,08,919 | 7,96,540 | 5,43,240 | 12,17,880 | 2,06,524 | 13,19,060 | 12,444 | 10,90,400 | |
| Shortfall in units due to excess use of steam in process at 100 unit per ton of steam | 13,41,400 | 8,97,100 | 11,25,500 | 7,40,250 | 12,92,600 | 7,48,550 | 11,14,300 | 7,23,200 | 3,98,200 | 6,84,150 | |
| **Total Shortfall** | **17,72,330** | **13,17,960** | **15,34,419** | **15,36,790** | **18,35,840** | **19,66,430** | **13,20,824** | **20,42,260** | **4,10,644** | **17,74,550** | |
| Power purchased from TANGEDCO (Units) | 2,12,438 | 6,26,576 | 79,866 | 3,92,020 | 1,18,830 | 6,08,788 | 1,99,473 | 6,24,140 | 3,43,137 | 7,05,664 | 3.91Mu |
| Cost of power purchased (₹ in crore) | 0.15 | 0.42 | 0.06 | 0.26 | 0.09 | 0.46 | 0.16 | 0.47 | 0.29 | 0.53 | 2.89 |
| Exportable surplus power (Units) | 15,59,892 | 6,91,384 | 14,54,553 | 11,44,770 | 17,17,010 | 13,57,642 | 11,21,351 | 14,18,120 | 67,507 | 10,68,886 | 11.60Mu |
| Value of power export at ₹ 3.15 | 0.49 | 0.22 | 0.46 | 0.36 | 0.55 | 0.43 | 0.35 | 0.45 | 0.21 | 0.34 | 3.65 |
| Loss due to excess consumption (₹ in crore) | 0.64 | 0.64 | 0.52 | 0.62 | 0.64 | 0.89 | 0.51 | 0.92 | 0.50 | 0.87 | 6.54 |

***One ton of steam will generate 100 units of power.**

**Source: Details furnished by the companies.**

## ANNEXURE-9

**Statement showing excess consumption of bagasse**

***(Referred to in paragraph 2.1.24)***

| Crushing season | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | 2014-15 | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | TASCO | PSM | TASCO | PSM | TASCO | PSM | TASCO | PSM | TASCO | PSM | |
| Steam required (in MT) | 1,90,956 | 1,74,198 | 1,65,424 | 1,43,735 | 1,74,041 | 1,45,351 | 1,51,664 | 1,40,426 | 1,32,677 | 1,32,835 | |
| Bagasse required to generate the above steam (in MT) 1:2 | 95,478 | 87,099 | 82,712 | 71,867.50 | 87,021 | 72,675.50 | 75,832 | 70,213 | 66,339 | 66,417.50 | |
| Bagasse used (in MT) | 95,805 | 96,777 | 83,500 | 79,853 | 94,700 | 80,751 | 81,625 | 78,014 | 74,960 | 73,797 | |
| Excess bagasse used (in MT) | 327 | 9,678 | 788 | 7,985.50 | 7,680 | 8,075.50 | 5,793 | 7,801 | 8,622 | 7,379.50 | |
| Selling rate of Bagasse per MT (in ₹) | 1250 | 879 | 1,458 | 879 | 1,270 | 1,393 | 1,797 | 2,240 | 1,900 | 2,240 | |
| Revenue foregone (₹ in crore) | 0.04 | 0.85 | 0.11 | 0.7 | 0.98 | 1.13 | 1.04 | 1.75 | 1.64 | 1.65 | **9.89** |

**Source: Details furnished by the companies**

# ANNEXURE-10

## Statement indicating non-fulfillment of captive norms and the resultant loss of revenue

**(*Referred to in Paragraph 2.2.27*)**

| Sl. No. | Circle | Special Purpose Vehicle | Extent of fulfillment of conditions regarding investment and proportionate consumption | Loss of revenue by way of non-collection of 50 *per cent* cross subsidy charges – (₹ in crore) |
|---|---|---|---|---|
| 1 | Udumalpet | Beta Wind Farm | Out of 25 captive consumers, only eight fulfilled the 26 *per cent* equity consumption norms with a variation of +/- 10 *per cent* proportionate to their shareholdings. The remaining 17 consumers did not fulfill the norms. During 2013-14, out of 37 captive users, only 18 fulfilled the norm. | 60.64 |
| 2 | Udumalpet | Gamma Wind Farm | Out of 14 Group captive consumers only eight fulfilled the proportionate consumption norms and the remaining six did not fulfill the norms in 2012-13. | 7.92 |
| | | | Out of 13 Group captive consumers, only three users fulfilled the norm during 2013-14. | 9.47 |
| 3 | Udumalpet | Rajaguru Spinning Mills | The captive generator had consumed only 49 *per cent* instead of the required 51 *per cent* during 2012-13. | 0.48 |
| 4 | Udumalpet | Senthil Energy (Private) Limited | The total investment of the captive users worked out to 24.94 *per cent* thereby not fulfilling the requirement of 26 *per cent* equity investment. | 1.92 |
| 5 | Udumalpet | S G Windfarm (Private) Limited | Out of 12 captive generators, four did not fulfill the 26 *per cent* equity norm. | 2.23 |
| 6 | Udumalpet | Vijayeeswari Textile Mills, M/s. Best Cotton Mills, M/s. Maruthamalai Andavar Spinning Mills, M/s. Premier Cotton Mills and M/s. Pressmatic Engineers India (Private) Limited | These five consumers did not fulfill the minimum 51 *per cent* consumption norm. | 1.06 |

| Sl. No. | Circle | Special Purpose Vehicle | Extent of fulfillment of conditions regarding investment and proportionate consumption | Loss of revenue by way of non-collection of 50 *per cent* cross subsidy charges – (₹ in crore) |
|---|---|---|---|---|
| 7 | Udumalpet | Balavimodham Power Process (Private) Limited | Out of two, only one captive user fulfilled the norm of proportionate consumption. | 0.11 |
| 8 | Udumalpet | Defree Engineering (Private) Limited | Out of three captive users, none fulfilled the norm of proportionate consumption. | 0.68 |
| 9 | Udumalpet | Maris Power Trading | Out of three, two captive users fulfilled the norm of proportionate consumption. | 0.11 |
| 10 | Udumalpet | Ushdev Engitech Limited | Out of the total paid up equity capital of ₹ 65.31 crore in Ushdev Engitech Ltd which operated a total pan India combined wind energy capacity of 58.2 MW, the investment by the four captive users amounted to only ₹ 9.90 lakh (0.31 *per cent).* | 0.79 |
| 11 | Udumalpet | Armstrong Power Systems Private Limited | Out of five captive consumers, only one satisfied the proportionate consumption norm. | 1.02 |
| 12 | Theni | Green Infra Wind Generation Private Limited | During 2012-13, out of 15 Group captive consumers, none complied with the norms of proportionate consumption. During 2013-14, out of 13 consumers, only four fulfilled the norm of proportionate consumption. | 9.66 |
| 13 | Theni | Green Infra Wind Projects Limited | Out of six Group captive consumers, only four complied with the norms of proportionate consumption. | 3.95 |
| 14 | Theni | KTV Power and Logistics Limited | None of the three Group captive consumers had fulfilled the proportionate consumption norms. | 0.62 |
| 15 | Theni | I Energy | Out of five Group captive consumers, none had fulfilled the norms of proportionate consumption. | 6.03 |
| 16 | Theni | Engineered Power Resource India (Private) Limited | Only one out of the 11 captive consumers had adhered to the consumption norms. | 2.81 |
| 17 | Theni | Solar Dynamics | Only one out of the three captive consumers had adhered to the consumption norms. | 0.82 |
| 18 | Coimbatore (Metro) – | K.P. Textiles (Coimbatore) Private Limited | The captive generator had not complied with the 51 *per cent* consumption norm during 2012-13. | 0.30 |

| Sl. No. | Circle | Special Purpose Vehicle | Extent of fulfillment of conditions regarding investment and proportionate consumption | Loss of revenue by way of non-collection of 50 *per cent* cross subsidy charges – (₹ in crore) |
|---|---|---|---|---|
| 19 | Chinglepet –AE 1 | HT SC No. 594,841, 559, 427, 191 | Five captive consumers have not complied with the consumption norm of 51 *per cent.* | 0.12 |
| 20 | Erode – AE 2 | RB Wovens Private Limited | The captive consumer has not complied with the consumption norm of 51 *per cent.* | 0.01 |
| 21 | Gobi – | Tiruppur Vijayalakshmi Spinning Mills and Kokila Textiles | The captive consumers have not complied with the consumption norm of 51 *per cent.* | 0.07 |
| 22 | Gobi | Naveen Cotton Mills | The captive consumer did not fulfill the conditions regarding 26 *per cent* of equity investment. | 0.53 |
| 23 | Gobi | Vijayalakshmi Textiles | Captive consumer's 27 *per cent* investment is in an unregistered partnership firm, which is against the instructions of TANGEDCO regarding registration requirement for captive user eligibility. | 0.04 |
| 24 | Kanyakumari | Clarion Windfarm and Prakash Vidyut Limited | 20 out of 32 captive consumers did not fulfill the proportionate shareholding of 26 *per cent* of equity investment. | 10.44 |
| 25 | Tuticorin | Kadal Kanny Frozen foods and Diamond Aqua Fishes Meal | The captive consumers have not complied with the consumption norm of 51 *per cent.* | 0.20 |
| 26 | Sivaganga | Kaderi Ambal Mills Limited | The captive consumer has not complied with the consumption norm of 51 *per cent.* | 0.04 |
| 27 | Tiruppur | Santhi Feeds, and Kaytee Corporation | Both the consumers did not satisfy the minimum consumption norm of 51 *per cent.* | 0.09 |
| 28 | Virudhunagar | HT -217 | The consumers did not satisfy the minimum consumption norm of 51 *per cent.* | 0.04 |
| | | | **TOTAL** | **122.20** |

## ANNEXURE-11

### Financial position and working results of Tamil Nadu Warehousing Corporation

***(Referred to in Paragraph 3.1)***

### A. Financial position of TNWC

(₹ in lakh)

| Sl.No. | Particulars | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|---|---|---|---|---|---|---|
| I. | **Source of funds** | | | | | |
| 1. | Shareholder funds | | | | | |
| | a) Share capital | 761.00 | 761.00 | 761.00 | 761.00 | 761.00 |
| | b) Reserves and surplus | 5,806.49 | 6,341.05 | 6,782.35 | 7,986.71 | 9,454.54 |
| 2. | Loans | 0 | 0 | 0 | 0 | 0 |
| 3. | Deferred tax liabilities | 20.86 | 399.43 | 386.79 | 481.58 | 571.90 |
| 4. | Subsidy | 15.62 | 15.20 | 14.78 | 14.35 | 13.93 |
| 5. | Insurance fund | 440.65 | 481.18 | 611.39 | 677.78 | 700.00 |
| | **Total** | **7,044.62** | **7,997.86** | **8,556.31** | **9,921.42** | **11,501.37** |
| II. | **Application of funds** | | | | | |
| 1. | Fixed assets | | | | | |
| | a) Gross block | 5,282.82 | 5,433.54 | 5,491.18 | 8,282.89 | 9,307.46 |
| | b) Depreciation | 1,873.88 | 1,987.26 | 2,090.71 | 2,227.75 | 2,432.93 |
| | c) Net block (a-b) | 3,408.94 | 3,446.28 | 3,400.47 | 6,055.14 | 6,874.53 |
| | d) Work in progress | 111.05 | 0 | 1,451.00 | 114.20 | 35.78 |
| | | 3,519.99 | 3,446.28 | 4,851.47 | 6,169.34 | 6,910.31 |
| 2. | Investments | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |
| 3. | Current assets, loans & advances | | | | | |
| | a) Inventories | 10.72 | 7.68 | 3.32 | 7.85 | 15.78 |
| | b) Sundry debtors | 879.13 | 1,050.43 | 824.17 | 1,219.10 | 2,537.67 |
| | Less: c) Provision for bad & doubtful debts | 95.11 | 100.58 | 103.29 | 129.75 | 140.76 |
| | [3a+(3b-3c)] | 794.74 | 957.53 | 724.20 | 1,097.20 | 2,412.69 |
| | d) Cash & bank balances | 4,082.47 | 4,869.69 | 4,420.29 | 4,850.86 | 5,038.62 |
| | e) Loans & advances | 2,136.74 | 2,383.56 | 2,736.95 | 3,468.27 | 4,251.58 |
| | f) Interest Receivable From IT Department | 16.66 | 16.66 | 38.40 | 39.59 | 105.19 |
| | **Total (A)** | **7,030.61** | **8,227.44** | **7,919.84** | **9,455.92** | **11,808.08** |
| 4. | Less: Current liabilities & provisions | | | | | |
| | a) Current liabilities | 680.96 | 468.48 | 650.28 | 1,457.48 | 2,117.38 |
| | b) Provisions | 2,825.11 | 3,207.50 | 3,564.82 | 4,246.46 | 5,099.74 |
| | **Total (B)** | **3,506.07** | **3,675.98** | **4,215.10** | **5,703.94** | **7,217.12** |

| Sl.No. | Particulars | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|---|---|---|---|---|---|---|
| | **Net current assets (A-B)** | **3,524.54** | **4,551.46** | **3,704.74** | **3,751.98** | **4,590.96** |
| | **Total** | **7,044.62** | **7,997.86** | **8,556.31** | **9,921.42** | **11,501.37** |
| | Net worth | 6,567.49 | 7,102.05 | 7,543.35 | 8,747.71 | 10,215.54 |
| | Capital employed | 6,567.49 | 7,102.05 | 7,543.35 | 8,747.71 | 10,215.54 |

## (B) Working results of TNWC for the period 2010-15

**(₹ in lakh)**

| Sl.No. | Particulars | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|---|---|---|---|---|---|---|
| 1 | **Income** | | | | | |
| a | Warehousing Charges | 3,198.89 | 3,464.58 | 3,449.83 | 4,169.28 | 4,688.96 |
| b | Supervision charges | 97.38 | 148.78 | 154.29 | 294.86 | 471.55 |
| c | Interest Income | 263.62 | 343.70 | 363.56 | 396.77 | 513.78 |
| d | Prior period income/Provision written off | 197.42 | 18.79 | 0 | 0 | 58.52 |
| e | Other Income | 54.65 | 105.20 | 82.78 | 74.50 | 96.69 |
| | **Total (1)** | **3,811.96** | **4,081.05** | **4,050.46** | **4,935.41** | **5,770.98** |
| 2 | **Expenses** | | | | | |
| a | Establishment charges | 1,677.98 | 1,758.04 | 1,632.34 | 1,643.82 | 1,632.87 |
| b | Rent, Rates and taxes | 64.46 | 45.18 | 57.56 | 90.42 | 172.16 |
| c | Maintenance and Repairs | 87.87 | 322.16 | 890.67 | 373.13 | 549.57 |
| d | Interest on borrowings | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 |
| e | Depreciation | 108.99 | 113.38 | 112.47 | 137.05 | 204.85 |
| f | Bad debts | 9.40 | 5.94 | 2.96 | 26.45 | 11.01 |
| g | Bad debts written off | 21.93 | 12.11 | 3.69 | 0.01 | 6.07 |
| h | Other expenses | 323.94 | 313.35 | 441.70 | 342.29 | 124.95 |
| | **Total (2)** | **2,294.88** | **2,570.47** | **3,141.70** | **2,613.48** | **2,701.79** |
| 3 | Profit before tax | 1,517.08 | 1,510.58 | 908.76 | 2,321.93 | 2,722.09 |
| 4 | Tax | 474.44 | 420.56 | 275.42 | 817.66 | 955.32 |
| 5 | Prior period adjustment | 105.01 | 378.57 | -2.97 | 0.13 | 0 |
| 6 | Other appropriations | | | 11.00 | 25.00 | 25.00 |
| 7 | Profit available for Appropriation | 937.63 | 711.45 | 619.37 | 1,479.40 | 1,741.77 |
| 8 | Dividend for the year | 93.48 | 176.89 | 178.06 | 275.04 | 273.95 |
| 9 | Return on capital employed | 937.63 | 711.45 | 619.37 | 1,479.40 | 1,741.77 |
| 10 | Capital employed | 6,567.49 | 7,102.05 | 7,543.35 | 8,747.71 | 10,215.54 |
| 11 | Percentage of return on capital employed | 14.28 | 10.02 | 8.21 | 16.91 | 17.05 |

## ANNEXURE-12

### Non-levy of liquidated damages for delay in completion of works

***(Referred to in Paragraph 3.7.2)***

| Sl. No. | Location of godown | Capacity (MT) | Date of award of work | Date of agreement | Scheduled date of completion | Actual date of completion | Delay in completion (days) | Value of work done (₹) |
|---|---|---|---|---|---|---|---|---|
| 1 | Aruppukkottai | 5,000 | 15.05.12 | 11.06.12 | 10.12.12 | 15.04.13 | 127 | 2,18,44,668 |
| 2 | Attur (10-11) | 3,400 | 20.06.10 | 06.10.10 | 07.09.11 | 15.02.12 | 162 | 1,19,45,836 |
| 3 | Attur (13-14) | 3,400 | 27.06.12 | 05.12.12 | 04.05.13 | 13.09.13 | 133 | 2,00,48,665 |
| 4 | Batlagundu | 2,800 | 28.06.12 | 11.10.12 | 10.04.13 | 02.03.14 | 327 | 1,47,80,435 |
| 5 | Chinna Salem – Godown No.1 | 5,000 | 15.03.12 | 12.05.12 | 11.05.13 | 03.04.14 | 328 | 2,04,61,135 |
| 6 | Chinna Salem – Godown No. 2 | 5,000 | 15.03.12 | 12.05.12 | 11.05.13 | 03.04.14 | 328 | 2,04,10,083 |
| 7 | Chinna Salem – Godown No. 3 | 5,000 | 15.03.12 | 12.05.12 | 11.05.13 | 15.11.14 | 554 | 1,95,39,843 |
| 8 | Karaikudi – Godown No.1 (Re-tender) | 5,000 | 15.05.12 | 26.06.12 | 25.12.12 | 15.04.13 | 110 | 2,11,19,553 |
| 9 | Karaikudi – Godown No.2(Re-tender) | 5,000 | 15.05.12 | 26.06.12 | 25.12.12 | 15.04.13 | 110 | 2,11,76,950 |
| 10 | Karaikudi – Godown No.3(Re-tender) | 5,000 | 15.05.12 | 26.06.12 | 25.12.12 | 15.04.13 | 110 | 2,11,40,889 |
| 11 | Kovilpatti (Re-tender) | 5,000 | 27.05.12 | 26.06.12 | 25.12.12 | 15.04.13 | 110 | 2,20,97,642 |
| 12 | Krishnagiri | 3,400 | 21.10.12 | 06.06.13 | 05.12.13 | 14.02.14 | 72 | 2,07,30,217 |
| 13 | Maduranthagam | 5,000 | 17.05.12 | 17.05.12 | 16.11.12 | 30.09.13 | 319 | 2,05,95,671 |
| 14 | Manamadurai | 3,400 | 04.04.13 | 01.08.13 | 02.02.14 | 21.03.14 | 47 | 1,86,50,709 |
| 15 | Namakkal | 3,400 | 27.08.10 | 12.10.10 | 11.09.11 | 08.04.12 | 211 | 1,11,05,033 |
| 16 | Pattukkottai | 3,400 | 27.08.10 | 18.10.10 | 17.09.11 | 06.06.12 | 264 | 1,25,12,257 |
| 17 | Vellore | 3,000 | 27.06.12 | 11.10.12 | 10.04.13 | 21.03.14 | 346 | 1,66,33,049 |
| **Total Capacity** | | **71,200** | | | | **Total Value of works completed** | | **31,47,92,635** |
| | | | | | | **Liquidated damages at 5 *per cent*** | | **1,57,39,632** |

# ANNEXURE-13

## Extra expenditure due to delay in finalisation of tenders

**(*Referred to in Paragraph 3.7.3*)**

**(In ₹)**

| Sl.No | Name of WHs | Capacity | Value of work put to tender | Negotiated Value of original tender | Agreement value (Re-tender) | Total value of work done | Excess expenditure |
|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (7-5) |
| 1 | Additional Godown No. 1, Karaikudi | 5,000 MT | 1,84,43,765 | 2,02,66,140 | 2,11,76,950 | 2,11,19,553 | 8,53,413 |
| 2 | Additional Godown No. 2, Karaikudi | 5,000 MT | 1,84,43,765 | 2,02,66,140 | 2,11,76,950 | 2,11,76,950 | 9,10,810 |
| 3 | Additional Godown No.3, Karaikudi | 5,000 MT | 1,84,43,765 | 2,02,66,140 | 2,11,76,950 | 2,11,40,889, | 8,74,749 |
| 4 | Additional Godown at Kovilpatti | 5,000 MT | 1,93,02,025 | 2,12,21,780 | 2,21,61,250 | 2,20,97,642 | 8,75,862 |
| **Total** | | | | | | | **35,14,834** |

## ANNEXURE-14

### Loss of storage charges due to actual utilisation basis under PEG Scheme 2008 (Phase I)

*(Referred to in Paragraph 3.7.4)*

(In ₹)

| Sl.No. | WHs | Storage charges on the basis of ABR at ₹ 3.38 per 50 kg bag | Storage charges on the basis of AUB at ₹ 3.38 per 50 kg bag | Loss of storage revenue = (ABR-AUB) |
|---|---|---|---|---|
| 1 | Chinnasalem | 1,03,83,219 | 1,00,16,552 | 3,66,667 |
| 2 | Aruppukottai | 84,81,112 | 69,24,345 | 15,56,767 |
| 3 | Karaikudi | 2,44,04,955 | 1,79,62,445 | 64,42,510 |
| 4 | Kovilpatti | 81,12,000 | 50,06,729 | 31,05,271 |
| 5 | Maduranthagam | 54,08,000 | 31,29,951 | 22,78,049 |
| | **Total** | **5,67,89,286** | **4,30,40,022** | **1,37,49,264** |

# ANNEXURE-15

## Statement showing depositor-wise details of occupancy out of total occupancy for the period 2010-15

*(Referred to in Paragraph 3.8.1)*

| Sl.No | Depositors | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | 2014-15 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MT | Percentage | MT | Percentage | MT | Percentage | MT | Percentage | MT | Percentage |
| 1 | Food Corporation of India (FCI) | 7,51,659 | 9 | 7,57,926 | 10 | 7,36,741 | 10 | 10,49,057 | 13 | 17,49,028 | 21 |
| 2 | Tamil Nadu Civil Supplies Corporation (TNCSC) | 14,95,413 | 18 | 19,22,554 | 25 | 18,09,529 | 23 | 19,96,028 | 25 | 14,86,803 | 18 |
| 3 | Tamilnadu Election Department (ballot Box) | 13,838 | 0 | 13,838 | 0 | 13,838 | 1 | 12,494 | 0 | 12,494 | 0 |
| 4 | Block Development Office (Cement etc) | 5,124 | 0 | 1,276 | 0 | 2,560 | 0 | 1,636 | 0 | 1,636 | 0 |
| 5 | Revenue Department (Fan, Mixi, Grinder) | 2,149 | 0 | 61,539 | 1 | 1,03,298 | 1 | 99,320 | 1 | 99,320 | 1 |
| 6 | Co-operative Societies | 4,63,175 | 6 | 1,68,006 | 2 | 4,95,476 | 6 | 2,58,511 | 3 | 1,19,221 | 1 |
| 7 | Tamilnadu State Marketing Corporation (TASMAC) | 1,06,971 | 1 | 98,883 | 1 | 1,97,575 | 3 | 1,06,389 | 1 | 1,06,389 | 1 |
| 8 | Government Departments | 4,22,775 | 5 | 3,70,033 | 5 | 4,40,709 | 6 | 5,74,798 | 7 | 7,57,990 | 9 |
| 9 | Fertilizer Companies | 2,06,996 | 2 | 2,53,055 | 3 | 9,01,084 | 12 | 7,41,157 | 9 | 4,22,392 | 5 |
| 10 | Farmers | 59,718 | 1 | 44,195 | 1 | 17,956 | 1 | 10,306 | 0 | 10,306 | 0 |
| 11 | Private parties | 3,77,157 | 5 | 2,81,778 | 4 | 2,25,147 | 3 | 1,75,864 | 2 | 1,75,864 | 2 |
| 12 | Other Private parties / Agencies | 31,81,848 | 38 | 23,37,190 | 30 | 16,91,809 | 22 | 13,53,999 | 17 | 13,24,438 | 16 |
| | **Total** | **70,86,823** | | **63,10,273** | | **66,35,722** | | **63,79,559** | | **62,65,881** | |

# ANNEXURE-16

## Statement of dunnage material available in sampled warehouses during 2010-15

*(Referred to in Paragraph 3.9.1)*

| Sl. No. | WHs | 100 *per cent* area (sq.ft) | Storage area (73 *per cent* area) (sq.ft) | Dunnage (crates, mat and BP film) available in square feet | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | 2014-15 | |
| | | | | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max |
| 1 | Salem Town | 92,459 | 67,495 | 34,304 (51) | 45,661 (68) | 31,447 (47) | 41,375 (61) | 27,162 (40) | 27,162 (40) | 22,019 (33) | 31,276 (46) | 20,305 (30) | 31,276 (46) |
| 2 | Dharmapuri | 76,361 | 55,744 | 44,012 (79) | 47,869 (86) | 30,499 (55) | 47,641 (85) | 23,642 (42) | 39,070 (70) | 23,142 (42) | 46,783 (84) | 21,428 (38) | 25,970 (47) |
| 3 | Namakkal | 65,941 | 48,137 | 0 (0) | 0 (0) | 37,712 (78) | 43,798 (91) | 25,713 (53) | 37,712 (78) | 19,642 (41) | 28,899 (60) | 11,757 (24) | 28,899 (60) |
| 4 | Trichy | 97,890 | 71,460 | 36,398 (51) | 63,883 (89) | 60,233 (84) | 71,168 (100) | 62,191 (87) | 78,553 (110) | 50,641 (71) | 53,212 (74) | 53,212 (74) | 69,754 (98) |
| 5 | Tiruvarur | 56,910 | 41,545 | 27,740 (67) | 28,340 (68) | 27,740 (67) | 27,740 (67) | 27,740 (67) | 27,740 (67) | 27,400 (66) | 29,625 (71) | 29,285 (70) | 29,285 (70) |
| 6 | Nagapattinam | 1,10,733 | 80,835 | 7,600 (9) | 10,943 (14) | 7,600 (9) | 7,600 (9) | 7,600 (9) | 7,600 (9) | 7,600 (9) | 7,600 (9) | 7,600 (9) | 7,600 (9) |
| 7 | Aranthangi | 62,053 | 45,299 | 36,754 (81) | 44,210 (98) | 44,210 (98) | 44,210 (98) | 38,296 (85) | 47,639 (105) | 38,296 (85) | 38,296 (85) | 38,296 (85) | 42,582 (94) |
| 8 | Tirunelveli | 1,09,870 | 80,205 | 23,592 (29) | 58,650 (73) | 19,162 (24) | 30,806 (38) | 24,312 (30) | 38,983 (49) | 20,812 (26) | 34,533 (43) | 16,998 (21) | 37,183 (46) |
| 9 | Tenkasi | 37,391 | 27,295 | 41,663 (153) | 46,913 (172) | 40,663 (149) | 41,663 (153) | 19,321 (71) | 19,321 (71) | 19,321 (71) | 19,321 (71) | 12,036 (44) | 19,321 (71) |
| 10 | Tuticorin Town | 35,321 | 25,784 | 27,432 (106) | 27,982 (109) | 14,311 (56) | 28,882 (112) | 11,914 (46) | 18,704 (73) | 8,443 (33) | 13,071 (51) | 8,271 (32) | 15,257 (59) |

Figures within brackets indicate percentage of dunnage available to 73 *per cent* area.

(Source: Dead stock register of WHs and applications for renewal of licence)

# ANNEXURE-17

## Loss of revenue due to non-revision of tariff

***(Referred to in Paragraph 3.10)***

**(in ₹)**

| | | |
|---|---|---|
| Storage revenue accounted for in the Annual Accounts for the year 2009-10 | | 28,69,30,500 |
| Less: Deductions made for items for which General Tariff was not applicable | | |
| (i) FCI Storage revenue | 3,46,24,177 | |
| (ii) LIC Katpadi (1,833.16 Sq.M*₹ 57*9 months) | 9,40,411 | |
| (iii) Open Storage – Vellore (200 Sq.M*₹ 19.75* for 5 months + 200 Sq.M. * ₹ 25* for 7 months) | 54,750 | |
| (iv) Open storage – Madurantagam (4,600 Sq.M* ₹ 15* for 12 months) | 8,28,000 | |
| **Total deductions** | | **3,64,47,338** |
| Storage revenue at General Tariff for 2009-10 | | 25,04,83,162 |
| **8 *per cent* hike as revised by CWC** | | **2,00,38,653** |

## ANNEXURE-18

### Storage charges pending collection as on 31 March 2015

*(Referred to in Paragraph 3.10.3)*

**(₹ in lakh)**

| Sl.No | Name of the depositor | Storage charges | Service tax | Amount pending |
|---|---|---|---|---|
| 1 | Food Corporation of India | 442.96 | 3.48 | 446.44 |
| 2 | Tamil Nadu Civil Suppies Corporation Limited | 204.03 | 25.14 | 229.17 |
| 3 | Taluk Offices | 119.73 | 14.80 | 134.53 |
| 4 | Election Department | 53.90 | 6.69 | 60.59 |
| 5 | District Collectors | 35.56 | 4.40 | 39.96 |
| 6 | Chennai Corporation | 20.76 | 2.57 | 23.33 |
| 7 | Government Departments | 9.32 | 1.15 | 10.47 |
| 8 | Block Development Offices | 5.05 | 0.62 | 5.67 |
| 9 | Tamil Nadu State AIDS Control Society | 2.62 | 0.32 | 2.94 |
| 10 | Tamil Nadu News Print and Papers Limited | 77.32 | 9.56 | 86.88 |
| 11 | Tamil Nadu Text Book Society | 35.80 | 4.40 | 40.20 |
| 12 | Oil and Natural Gas Commission | 28.89 | 3.57 | 32.46 |
| 13 | Tamil Nadu State Marketing Corporation Limited | 96.30 | 11.46 | 107.76 |
| 14 | Other private depositors | 327.59 | 38.37 | 365.96 |
| | **Total** | **1,459.83** | **126.53** | **1,586.36** |

## ANNEXURE-19

### Statement showing age-wise analysis of the pending accident claims as of March 2015
### (*Referred to in Paragraph 4.1.4*)

(₹ in crore)

| Name of the STU | Over ten years | | Five to ten years | | Less than five years | | Total | |
|---|---|---|---|---|---|---|---|---|
| | No. of cases | Amount | No. of cases | Amount | No. of cases | Amount | No. of cases | Amount |
| Salem | 85 | 2.14 | 359 | 10.58 | 2026 | 72.67 | 2470 | 85.39 |
| MTC | 40 | 0.69 | 149 | 3.38 | 849 | 55.53 | 1038 | 59.6 |
| Coimbatore | 247 | 7.39 | 696 | 28.75 | 1,191 | 61.65 | 2,134 | 97.79 |
| Villupuram | 113 | 2.82 | 444 | 8.71 | 1,603 | 8.45 | 2,160 | 19.98 |
| Tirunelveli | 456 | 8.15 | 780 | 15.64 | 1,183 | 24.16 | 2,419 | 47.95 |
| Madurai | 109 | 1.87 | 240 | 9.96 | 1,348 | 55.28 | 1,697 | 67.11 |
| SETC | 616 | 10.32 | 551 | 14.47 | 299 | 20.75 | 1,466 | 45.54 |
| Kumbakonam | 557 | 3.58 | 821 | 7.15 | 2,035 | 0.98 | 3,413 | 11.71 |
| **Total cases** | **2,223** | **36.96** | **4,040** | **98.64** | **10,534** | **299.47** | **16,797** | **435.07** |
| Percentage to total | 13 | 8 | 24 | 23 | 63 | 69 | | |
| **Total cases where STUs accepted liabilities** | **1,024** | **11.37** | **2,373** | **31.91** | **7,808** | **164.44** | **11,205** | **207.72** |
| Percentage to total | 9 | 5 | 21 | 15 | 70 | 80 | | |

## ANNEXURE-20

### Statement showing drawal and disbursement of fund from the Government and STUs for settlement of accident compensation

***(Referred to in Paragraph 4.1.5)***

**(₹in crore)**

| | 2010-11 | | | 2011-12 | | | 2012-13 | | | 2013-14 | | | 2014-15 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **No. of claims** | **Amount** | **Balance in Fund** | **No. of claims** | **Amount** | **Balance in Fund** | **No. of claims** | **Amount** | **Balance in Fund** | **No. of claims** | **Amount** | **Balance in Fund** | **No. of claims** | **Amount** | **Balance in Fund** |
| Opening balance | 11,721 | 224.49 | 0.71 | 15,376 | 254.42 | 39.43 | 16,183 | 281.36 | 48.99 | 16,553 | 319.75 | 43.82 | 16,920 | 367.26 | 14.88 |
| Additions | 9,164 | 152.82 | @20.00<br>*20.00<br>$121.61 | 6,415 | 133.62 | @20.00<br>*16.62<br>$79.62 | 6,324 | 172.18 | @20.00<br># 4.99<br>*22.68<br>$80.95 | 5,658 | 166.52 | @20.00<br># 3.88<br>*20.22<br>$45.98 | 5,094 | 198.29 | @20.00<br># 2.51<br>*19.49<br>$76.56 |
| **Total** | **20,885** | **377.31** | **162.32** | **21,791** | **388.04** | **155.67** | **22,507** | **453.54** | **177.61** | **22,211** | **486.27** | **133.90** | **22,014** | **565.55** | **133.44** |
| Clearance | 5,509 | 122.89 | ♦1.28<br>♣121.61 | 5,608 | 106.68 | ♦27.06<br>♣79.62 | 5,954 | 133.79 | ♦52.84<br>♣80.95 | 5,291 | 119.02 | ♦73.04<br>♣45.98 | 5,217 | 130.48 | ♦53.92<br>♣76.56 |
| **Closing balance** | **15,376** | **254.42** | **39.43** | **16,183** | **281.36** | **48.99** | **16,553** | **319.75** | **43.82** | **16,920** | **367.26** | **14.88** | **16,797** | **435.07** | **2.96** |

@ Government share

# Interest earned by the fund

* STU's matching share

$ STU's contribution from own sources

♦ Clearance from Fund

♣ Clearance directly by STUs

## ANNEXURE-21

### Statement showing penalty for non-supply of ETMs
### (*Referred to in Paragraph 4.2*)

| Sl.No. | Name of STU | Average ticket sales per day | Cost of one ticket (In ₹) | Penalty to be levied for one day (₹ in lakh)) |
|---|---|---|---|---|
| 1. | State Express Transport Corporation Limited | 0.448 | 0.0309 | 0.01 |
| 2. | Tamil Nadu State Transport Corporation Limited (TNSTC), Villupuram | 17.199 | 0.0095 | 0.16 |
| 3. | TNSTC, Salem | 12.223 | 0.0095 | 0.13 |
| 4. | TNSTC, Coimbatore | 17.638 | 0.0095 | 0.17 |
| 5. | TNSTC, Kumbakonam | 21.22 | 0.0095 | 0.20 |
| 6. | TNSTC, Madurai | 14.143 | 0.0095 | 0.13 |
| 7. | TNSTC, Tirunelveli | 10.834 | 0.0095 | 0.10 |
| | **TOTAL** | **93.705** | | **0.90** |

**Penalty for 22 months from October 2013 to July 2015 i.e., ₹ 0.90 lakh X 669 days = ₹ 6.02 crore**

## ANNEXURE-22

### Statement showing interest for delayed payment of upfront lease rent

**(*Referred to in Paragraph 4.3*)**

(₹ in lakh)

| Sl. No. | Name of the allottee | Name of the industrial estate | Upfront lease rent | Due date for payment (after allowing 60 days) | Actual date for payment | Amount paid | Period of delay (In days) | Interest for delayed payment at the rate of 15.5 *per cent per annum* |
|---|---|---|---|---|---|---|---|---|
| 1. | D.B.Professional | Salem | 75.00 | 13.07.2010 | 07.09.2010 | 25.00 | 44 | 0.47 |
| | | | | | 30.09.2010 | 25.00 | 77 | 0.81 |
| | | | | | 07.05.2011 | 25.00 | 296 | 3.14 |
| 2. | Chella Software | Madurai | 67.50 | 12.07.2011 | 13.08.2010 | 32.50 | 31 | 0.43 |
| | | | | | 13.10.2010 | 35.00 | 92 | 1.37 |
| 3. | Llink | Trichy | 33.78 | 08.02.2011 | 14.06.2011 | 1.00 | 125 | 0.05 |
| | | | | | 22.09.2011 | 32.78 | 225 | 3.13 |
| 4. | Mahima Tech | Salem | 75.00 | 23.03.2011 | 19.05.2011 | 75.00 | 56 | 1.78 |
| 5. | Ookaya | Hosur | 637.70 | 21.03.2011 | 06.08.2012 | 637.70 | 502 | 135.94 |
| 6. | Vee Tech | Salem | 237.25 | 20.11.2014 | 28.10.2014 | 25.00 | --- | --- |
| | | | | | 30.03.2015 | 212.25 | 128 | 11.54 |
| | | | | | | 1126.23 | | 158.66 |

## ANNEXURE-23

### Statement showing loss of interest for non-recovery of development charges

(*Referred to in Paragraph 4.3*)

**(₹ in lakh)**

| Sl. No. | Name of the allottee | Name of the industrial estate | Development charges to be collected | Due date for payment (after allowing 60 days) | Period of delay calculated upto 31 May 2015 (In days) | Interest for delayed payment at the rate of 15.5 *per cent per annum* |
|---|---|---|---|---|---|---|
| 1. | D.B.Professional | Salem | 59.00 | 13.07.2010 | 1,782 | 44.65 |
| 2. | Chella Software | Madurai | 86.00 | 12.07.2011 | 1,418 | 51.78 |
| 3. | Llink | Trichy | 46.00 | 08.02.2011 | 1,572 | 30.71 |
| 4. | Mahima Tech | Salem | 59.00 | 23.03.2011 | 1,529 | 38.31 |
| 5. | Ookaya | Hosur | 46.38 | 21.03.2011 | 1,530 | 30.13 |
| 6. | Syntel | Tirunelveli | 365.00 | 20.04.2011 | 1,501 | 232.66 |
| 7. | WNS | Trichy | 233.00 | 26.04.2011 | 1,495 | 147.92 |
| 8. | Vee Tech | Salem | 188.00 | 20.11.2014 | 192 | 15.33 |
| | | | **1082.38** | | | **591.49** |

## ANNEXURE-24

### Statement showing loss of lease rent

*(Referred to in Paragraph 4.8)*

| Period | Number of months | Space for which license fee and maintenance charges not charged (In sq ft.) | Rate of license fee per sq ft (In ₹) | Maintenance charges per sq ft (In ₹) | Total (4) + (5) (In ₹) | Lease rent and maintenance charges not collected (In ₹) |
|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| April 2007 to March 2008 | 12 | 2,450 | 35.00 | 8.51 | 43.51 | 12,79,200 |
| April 2008 to March 2009 | 12 | 2,450 | 35.00 | 8.96 | 43.96 | 12,92,424 |
| April 2009 to March 2010 | 12 | 2,450 | 35.00 | 9.38 | 44.38 | 13,04,772 |
| April 2010 to March 2011 | 12 | 2,450 | 36.75 | 9.85 | 46.60 | 13,70,040 |
| April 2011 to March 2012 | 12 | 2,450 | 38.60 | 10.34 | 48.94 | 14,38,836 |
| April 2012 to June 2013 | 15 | 2,450 | 40.25 | 10.86 | 51.11 | 18,78,292 |
| | | | | | | 85,63,564 |

## Glossary of Abbreviations

| Abbreviation | Description |
|---|---|
| AASM | Arignar Anna Sugar Mill |
| ABR | Area Basis Reservation |
| ABT | Availability Based Tariff |
| AE | Assistant Engineer |
| AMET | Academy for Marine Education and Training University |
| ATNs | Action Taken Notes |
| AUB | Actual Utilisation Basis |
| Beta | Beta Wind Farm |
| BOD | Board of Directors |
| C/DOS | Commissioner/Director of Sugar |
| CAG, C&AG | Comptroller and Auditor General of India |
| CERC | Central Electricity Regulatory Commission |
| CGS | Central Generating Stations |
| CMD | Chairman-cum-Managing Director |
| COPU | Committee on Public Undertakings |
| CUF | Capacity Utilisation Factor |
| CW | Construction Wing |
| CWC | Central Warehousing Corporation |
| DBOOT | Design, Building, Own, Operate and Transfer |
| DM | Deputy Manager |
| DWM | Deputy Warehouse Manager |
| EP | Execution Petition |
| EPA | Energy Purchase Agreement |
| EPC | Engineering, Procurement and Construction |
| ETM | Electronic Ticketing Machine |
| EWA | Energy Wheeling Agreement |
| FB | Fire Bucket |
| FCI | Food Corporation of India |
| FCL | Foreign Currency Loan |
| FE | Fire Extinguisher |
| FRP | Fair and Remunerative Price |
| GBC | Gas Booster Compressor |
| GCP | Group Captive Plant |
| GDP | Gross Domestic Product |
| GOI | Government of India |
| GOTN | Government of Tamil Nadu |

| Abbreviation | Description |
|---|---|
| GT | Gas Turbine |
| HO | Head Office |
| HP/LP | High Pressure/Low Pressure |
| HT | High Tension |
| IA | Internal Audit |
| IDC | Infrastructure Development Charges |
| IMU | Indian Maritime University |
| IPP | Independent Power Producer |
| IT | Information Technology |
| IT SEZs | Information Technology Special Economic Zones |
| JE | Junior Engineer |
| Kms | Kilometre |
| KVA | Kilo Volt Ampere |
| KW | Kilo Watt |
| L-1 | Lowest bidder |
| LDC | Load Despatch Centres |
| LIBOR | London Inter Bank Offered Rate |
| LOA | Letter of Acceptance |
| LOC | Letter of Credit |
| MACT | Motor Accident Compensation Tribunal |
| MD | Managing Director |
| MNRE | Ministry of New and Renewable Energy |
| MOP | Ministry of Power |
| MT | Metric Tonne |
| MTC | Metropolitan Transport Corporation (Chennai) Limited |
| MUs | Million Units |
| MVA | Mega Volt Ampere |
| MW | Mega Watt |
| NABARD | National Bank for Agriculture and Rural Development |
| NAFED | National Agricultural Co-operative Marketing Federation of India Limited |
| NIWE | National Institute of Wind Energy |
| NWR | Negotiable Warehouse Receipt |
| O&M | Operation and Maintenance |
| PEG | Private Entrepreneurs Guarantee |
| PGCIL | Power Grid Corporation of India Limited |
| PO | Purchase Order |
| PPP | Public Private Partnership |

| Abbreviation | Description |
|---|---|
| PSM | Perambalur Sugar Mills Limited |
| PSUs | Public Sector Undertakings |
| REMC | Renewable Energy Management Centres |
| RFP | Request for proposal |
| RO | Regional Office |
| SAP | State Advised Price |
| SARs | Separate Audit Reports |
| SBPL | Srinivasa Balaji Papers (Private) Limited |
| SIPCOT | State Industries Promotion Corporation of Tamil Nadu Limited |
| SLCC | State Level Co-ordination Committee |
| Sq.ft. | Square feet |
| SRM | Senior Regional Manager |
| STUs | State Transport Undertakings |
| TANGEDCO | Tamil Nadu Generation and Distribution Corporation Limited |
| TANTRANSCO | Tamil Nadu Transmission Corporation Limited |
| TASCO | Tamil Nadu Sugar Corporation Limited |
| TASMAC | Tamil Nadu State Marketing Corporation Limited |
| TCD | Tons Crushed Per Day |
| TDFC | Tamil Nadu Transport Development Finance Corporation Limited |
| TNCSC | Tamil Nadu Civil Supplies Corporation Limited |
| TNERC | Tamil Nadu Electricity Regulatory Commission |
| TNFED | Tamil Nadu Co-operative Marketing Federation |
| TNTBS | Tamil Nadu Text Book Society |
| TNWC | Tamil Nadu Warehousing Corporation |
| Tradex | Tradex Shipping Company Private Limited |
| TTPS | Tuticorin Thermal Power Station |
| WDR Act | Warehousing (Development and Regulation) Act |
| WDRA | Warehousing Development and Regulatory Authority |
| WEG | Wind Electric Generators |
| WHs | Warehouses |
| WM | Warehouse Manager |