PREFACE

1. *This Report has been prepared for submission to the Governor under Article 151 of the Constitution.*

2. *The Report deals with the findings of performance reviews and audit of transactions in various departments including the Public Works Department and audit of Government Companies and Statutory Corporations.*

3. *The cases mentioned in the Report are among those which came to notice in the course of test audit of accounts during the year 2010-11 as well as those which had come to notice in earlier years but could not be dealt with in previous Reports; matters relating to the period subsequent to 2010-11 have also been included wherever necessary.*

4. *Audit observations on matter arising from the examination of Finance Accounts and Appropriation Accounts of the State Government for the year ended 31 March 2011 are included in a separate Report on State Government Finances.*

5. *The audits have been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.*

OVERVIEW

This Report contains Civil and Commercial chapters comprising three performance reviews (including one on Chief Controlling Officer based audit) and 14 audit paragraphs, based on the audit of certain selected programmes and activities and the financial transactions of the Government, audit of Government Companies and Statutory Corporations.

Copies of the audit paragraphs and performance reviews were sent to the concerned Secretaries to the State Government by the Principal Accountant General (Audit) with a request to furnish replies within six weeks. In respect of two reviews in this Report, no response was received from the concerned Secretaries to the State Government.

A synopsis of the important findings contained in this Report is presented in this overview.

PERFORMANCE REVIEW

Pollution Control and Waste Management

Pollution control is the process of reducing or eliminating the release of pollutants into the environment. Waste management is the collection, transport, recovery and disposal of waste, including the supervision of such operations and after-care of disposal sites. Government of India, under the Environment (Protection) Act, 1986 framed (1998-2000) rules to regulate management of municipal solid wastes and bio-medical wastes to protect and improve the environment. In Meghalaya, while the Meghalaya State Pollution Control Board (MSPCB) is primarily responsible for enforcing the Acts and Rules relating to pollution control and waste management, the actual implementation of these Acts and Rules is the responsibility of various departments/organisations including Public Health Engineering Department.

Poor compliance with rules by the implementing agencies, *viz*. municipal boards and the health care establishments coupled with ineffective monitoring by the MSPCB resulted in continued environmental pollution and health hazards leading to increase in the number of patients suffering from air and water borne diseases. The ambient air quality of Shillong city in particular and the State in general is far from satisfactory mainly because of emission of air pollutants from automobiles. The extent of pollution of air caused by 481 polluting industries was not monitored by the MSPCB. Coal mining activities were being carried out in the State without authorisation. Water of 28 out of 31 water bodies of six districts of the State was not fit for drinking. There was no waste processing facilities in four municipal boards or scientific landfills in all the six municipal boards of the State which resulted in open dumping of mixed wastes. In violation of Bio-Medical Waste (Management and Handling) Rules, 139 (out of 178) health institutions were functioning in the State without authorisation from the MSPCB.

(Paragraph 1.1)

AUDIT OF TRANSACTIONS

Fraud/Loss

Expenditure of ₹ 56 lakh purported to have been incurred by the Community and Rural Development Department on procurement of corrugated galvanised iron sheets remained doubtful.

(Paragraph 2.1)

Meghalaya Urban Development Authority incurred a loss of ₹ 65 lakh due to irregular allotment and management of parking lots.

(Paragraph 2.2)

Extra Expenditure

The Social Welfare Department incurred extra avoidable expenditure of ₹ 88.73 lakh due to retrospective enhancement of the rate of milk powder without any compelling reason.

(Paragraph 2.3)

Unproductive Expenditure

Five Primary Health Centres and four Community Health Centres constructed by the Health and Family Welfare Department at a cost of ₹ 12.84 crore remained non-functional rendering the entire expenditure unproductive.

(Paragraph 2.6)

Failure of the Public Health Engineering Department to complete construction of treatment plant of 'Umden Combined Water Supply Scheme' meant for providing safe drinking water to 6,001 people of eight villages in Ri-Bhoi District resulted in expenditure of ₹ 2.76 crore incurred on the scheme remaining unproductive.

(Paragraph 2.7)

Undue favour

Unauthorised allotment of land by the Urban Affairs Department to the Civil Service Officers Housing Co-operative Society as well as incorrect fixation of premium at a lower rate resulted in undue financial benefit of ₹ 78.42 lakh to the Society besides allotment of land in excess of the prescribed limit.

(Paragraph 2.8)

CHIEF CONTROLLING OFFICER BASED AUDIT OF GOVERNMENT DEPARTMENTS

Chief Controlling Officer based Audit of Public Works Department (Roads and Bridges Wing)

Road network is the only means of communication in Meghalaya and is, therefore, the catalyst of all economic and social activities. The Roads and Bridges Wing of the Public Works Department is responsible for planning and development of the State's road network as well as maintenance and upgradation of existing road network and bridges. The Roads and Bridges Wing has added 6,769.56 kilometre length of road since creation of the State in January 1972.

Several deficiencies were, however, noticed in the functioning of the Wing, such as, non-formulation of State Road Policy, absence of master plan and perspective plan, unrestrained sanction of projects without availability of funds leading to huge pending liabilities and pre-closure and de-sanctioning of projects, lax quality control, *etc*. As many as 169 projects taken up by the Wing were either pre-closed or de-sanctioned rendering an expenditure ₹ 19.71 crore wasteful. There were delays in completion of projects ranging from three months to 14 years due to land disputes, change of alignment, fund constraints, late allotment of works, *etc*. rendering expenditure of ₹ 122.85 crore largely unfruitful. Non-completion of road and bridge projects due to land dispute and discontinuation of works by the contractor resulted in unproductive expenditure of ₹ 2.71 crore. There was unauthorised deviation from the sanctioned estimate which resulted in excess expenditure of ₹ 11.43 crore. Quality control of projects executed by the Roads and Bridges Wing was not accorded due priority as the mandatory specification tests prescribed for Road and Bridge Works, published by the Indian Roads Congress, was not carried out.

(Paragraph 3.1)

GOVERNMENT COMMERCIAL AND TRADING ACTIVITIES

Overview of State Public Sector Undertaking

Audit of Government companies is governed by Section 619 of the Companies Act, 1956. The accounts of Government companies are audited by Statutory Auditors appointed by Comptroller and Auditor General of India (CAG).These accounts are also subject to supplementary audit conducted by CAG. Audit of Statutory corporations is governed by their respective legislations. As on 31 March 2011, the State of Meghalaya had 11 working Public Sector Undertakings (PSUs) (Nine companies and two Statutory corporations) and two non-working companies, which employed 4989 employees. The working PSUs registered a turnover of ₹ 457.06 crore for 2010-11 as per their latest finalised accounts as of September 2011. This turnover was equal to 3.03 *per cent* of State Gross Domestic Product indicating a moderate role played by State PSUs in the economy. However, the State working PSUs incurred an overall loss of ₹ 96.96 crore in the aggregate for 2010-11 as per their latest finalised accounts as on 30 September 2011.

Investments in PSUs

As on 31 March 2011, of the total investment in State PSUs, 99.65 *per cent* was in working PSUs and the remaining 0.35 *per cent* in two non-working PSU. This total investment consisted of 28.72 *per cent* towards capital and 71.28 *per cent* in long-term loans. The investment has increased by over 76.69 *per cent* from ₹ 896.80 crore in 2005-06 to ₹ 1584.53 crore in 2010-11.

Performance of PSUs

During the year 2010-11, out of 11 working PSUs, one PSU namely Meghalaya Government Construction Corporation Limited earned profit of ₹ 0.87 crore and remaining ten PSUs incurred loss of ₹ 97.83 crore. The major losses were incurred by Meghalaya Industrial Development Corporation Limited (₹ 25.07 crore), Mawmluh Cherra Cements Limited (₹ 12.54 crore) and Meghalaya State Electricity Board (₹ 56.42 crore).The losses of working PSUs were mainly attributable to deficiencies in financial management, planning, implementation of projects, operations and monitoring. A review of latest Audit Reports of CAG shows that the State PSUs incurred losses to the tune of ₹ 66.43 crore and infructuous investment of ₹ 6.66 crore which were controllable with better management. Thus, there is tremendous scope to improve the functioning of PSUs and finalise losses.

Quality of accounts

The quality of accounts of PSUs needs improvement. All the 15 accounts finalised by working PSUs during October 2010 to September 2011 received qualified certificates. There were 12 instances of non-compliance with Accounting Standards. Reports of Statutory Auditors on internal control of the companies indicated certain weak areas.

Arrears in accounts

Ten PSUs had arrears of 51 accounts as of September 2011. The PSUs need to set targets for the work relating to preparation of accounts with special focus on arrears. There were two non-working companies as on 31 March 2011. While one non-working company has already been struck off from the records of the Registrar of Companies on 24 June 2011, the other company had not commenced the liquidation process. As no purpose was served by keeping this non-working company in existence, Government needs to expedite closure of this company.

(Paragraph 4.1)

Performance Audit

Meghalaya Energy Corporation Limited

In Meghalaya, distribution of power was carried out by the erstwhile Meghalaya State Electricity Board (MeSEB) which was corporatised on 01 April 2010 as Meghalaya Energy Corporation Limited (MeECL). The performance audit of distribution activities of MeECL was conducted for the period from 2006-07 to 2010-11 to assess whether aims and objectives of National Electricity Policy/ Plans (NEP) were adhered to and distribution reforms were achieved.

Financial Management and working Result

The accumulated losses of the MeECL which increased from ₹ 403.78 crore in 2006-07 to ₹ 540.41 crore in 2010-11 had fully wiped out the paid up capital (₹ 202 crore). Despite revision in tariff on five occasion during 2006-11, the per unit loss increased by ₹ 0.39 from (-) ₹ 1.80 in 2006-07 to (-) ₹ 2.19 in 2010-11 due to increase in cost per unit by ₹ 0.86 during said period.

Distribution Network Planning

The MeECL did not plan/ set target for addition in the distribution network based on the anticipated growth in demand/connected load during any of the five years covered in Performance audit.

Rural Electrification

As on 31 March 2006, out of total 6026 villages in the State (as per 2001 Census), 3568 villages (59.21 *per cent*), were electrified. Under Rajeev Gandhi Grameen Vidyutikaran Yojana (RGGVY), out of the total 6026 villages (including villages already electrified), the MeECL targeted to electrify/intensify total 5388 villages by January 2012 and only 55.89 *per cent* of targeted villages were electrified during the period 2007-11. The planning of MeECL was deficient and the possibility of providing access to electricity for all households by the year 2012 as envisaged under National Electricity Policy (NEP) appears to be remote. In implementation of RGGVY, several other deficiencies like, under utilisation of scheme funds, delayed completion of works, provision of excess capacity of transformers, high variation in the rates of material, *etc* were noticed. The Restructured Accelerated Power Development and Reforms Programme (R-APDRP) meant to strengthen the distribution system and reduce AT&C losses was yet to be taken up for implementation even after lapse of more than three years of its launching in July 2008.

Aggregate Technical & Commercial Losses

Compared to the actual reduction of AT&C losses by 1.42 *per cent* from 41.90 (2006-07) to 40.48 (2010-11), the projection for reduction of AT&C losses by 14.75 *per cent* (36.80 in 2006-07 to 22.05 in 2010-11) during the years 2006-07 to

2010-11 was unrealistic. Value of energy losses in excess of limit allowed by MSERC amounted to ₹ 51.82 crore during the performance audit period.

Consumer metering

During performance audit period, against the growth of consumers by 17.45 *per cent*, percentage of metered consumers had increased from 30.57 to 63.01 *per cent*. Despite this, MeECL is still far behind the objective of attaining 100 *per cent* metering by 36.99 *per cent*.

Operational efficiency

The state remained largely dependent upon purchase of power. There had been continuous power deficits as compared to the assessed demand as per the Electric Power Survey during the period 2006-07 to 2010-11 except for 2007-08 and the quantum of power deficits was increasing over the said years. Out of the total 1369 Distribution Transformers (DTRs) purchased during 2007-11, purchases to the extent of 577 DTRs (42 *per cent*) could have been avoided had the Work Centre, Sumer timely cleared the backlog of un-repaired DTRs existing as on 31 March 2011. The MTI & Vigilance activities were not commensurate with the number of consumers and the expenditure incurred for maintaining these divisions did not add value to the MeECL's performance.

Billing and Collection efficiency

Deficiencies in the billing system, such as non billing of consumers on regular basis, incorrect billing, non-disconnection of power of consumers running with low power factor, *etc*., were noticed. The collection activities of MeECL also had several shortcomings like, mounting arrears against electricity dues, huge recoveries pending against permanent disconnected consumers, non-disconnection of supply of defaulting consumers and consumers with heavy arrears, *etc*.

Subsidy Support and Cross Subsidisation

The outstanding against subsidy receivables from the State Government increased from ₹ 155.15 crore in 2006-07 to ₹ 254.74 crore in 2010-11. As the financial position of the MeECL was not very sound, the viability of the MeECL was heavily dependent on the Government support. The target of bringing the tariff of all the category of consumers within plus or minus 20 *per cent* of ACOS by the year 2010-11 as envisaged in the National Tariff Policy was not achieved by MeECL.

Energy Conservation

The MeECL was yet to consider and implement vigorously energy conservation measures and was yet to take up energy audit.

Monitoring by top Management

The MeECL did not have proper Management Information System (MIS) in place for exercising effective control over its activities by top management.

Conclusion

The distribution reforms envisaged under National Electricity Policy/Plans were not fully achieved by MeECL. The increase in the distribution capacity was not commensurate with the pace of growth in demand. MeECL failed to complete the power projects in time leading to high dependence on outside power purchase resulting high cost of power.

The implementation of the centrally sponsored schemes for rural electrification (RGGVY) and strengthening the distribution network (R-APDRP) was not efficient and effective. R-APDRP was yet to be taken up for implementation even after lapse of more than three years of its launching. The AT&C losses of MeECL continued to be high mainly on account of poor billing and collection efficiency, overloading of transmission and distribution network, large number of un-metered connections and stopped/defective meters and theft/pilferage of energy, *etc*. The billing and collection system of MeECL was also not efficient causing adverse impact on the financial health of MeECL.

The guidelines of MSERC were not strictly adhered to as far as addressing the consumer grievances and conducting energy audits were concerned.

Recommendations

The performance audit contains seven recommendations for timely implementation of GoI Schemes, strengthening the distribution network, evolving effective system of billing and revenue collection, expediting the cent percent metering of all consumers and other measures for controlling the AT&C losses, expedite completion of pending power projects for reducing dependence on outside purchase of power, timely redressal of consumer complaints, conducting energy audit and evolving an appropriate MIS, *etc*.

(Paragraph 4.2)

Audit of Transactions

Transaction audit observations included in this Report highlight deficiencies in the management of PSUs, which resulted in serious financial implications. The irregularities pointed out are broadly of the following nature:

The erstwhile Meghalaya State Electricity Board failed to safeguard its assets and to ensure encroachment free clear site before award of Hydro Project work, which delayed completion of the project besides avoidable payment of idle charges of ₹ 2 crore.

(Paragraph 4.3)

Meghalaya Industrial Development Corporation Limited unduly delayed recovery action against outstanding loan, which resulted in loss of ₹ 62.43 lakh.

(Paragraph 4.4)

Ineffective management of industrial parks by Meghalaya Industrial Development Corporation Limited resulted in rental arrears accumulating to ₹ 3.01 crore and land not being optimally used for intended purposes.

(Paragraph 4.5)

The indecisive and dithering approach of the State Government in providing the necessary funds to Meghalaya Electronics Development Corporation Limited resulted in loss of ₹ 3.74 crore to state exchequer on account of increased Voluntary Retirement Scheme liability.

(Paragraph 4.6)

Inordinate delay by Mawmluh Cherra Cements Limited in restricting the contract demand and connected load as per actual requirement resulted in extra expenditure of ₹ 44.08 lakh towards high demand charges.

(Paragraph 4.7)

CHAPTER I – PERFORMANCE REVIEW

PUBLIC HEALTH ENGINEERING DEPARTMENT

1.1 Pollution Control and Waste Management

Highlights

Government of India, under the Environment (Protection) Act, 1986 framed (1998-2000) rules to regulate management of municipal solid wastes and bio-medical wastes to protect and improve the environment. Poor compliance with the rules by implementing agencies, viz. municipal boards and the health care establishments coupled with ineffective monitoring by the Meghalaya State Pollution Control Board (MSPCB) resulted in continued environmental pollution and health hazards leading to increase in the number of patients suffering from air and water borne diseases.

The ambient air quality of the Shillong city in particular and the State in general is far from satisfactory mainly because of emission of air pollutants from automobiles.

(Paragraphs 1.1.11.1 & 1.1.11.2)

The extent of pollution of air caused by 481 polluting industries was not monitored by the MSPCB. Besides, coal mining activities were being carried out in the State without authorisation.

(Paragraphs 1.1.11.3 & 1.1.11.5)

The existence of actual number of water bodies in the State was not determined by the MSPCB or the Water Resources Department. Water of 28 out of 31 water bodies of six districts of the State was not fit for drinking.

(Paragraph 1.1.12.1)

Lack of waste processing facilities in four municipal boards or scientific landfills in all the six municipal boards of the State resulted in open dumping of mixed wastes which could lead to environmental pollution.

(Paragraph 1.1.13.4)

In violation of Bio-Medical Waste (Management and Handling) Rules, 139 (out of 178) health institutions were functioning in the State without authorisation from the MSPCB. The MSPCB also failed to ensure segregation, labelling, colour coding and disposal of bio-medical wastes in accordance with the prescribed rules.

(Paragraphs 1.1.14.1 & 1.1.14.2)

Site for disposal of hazardous wastes generated by industries was not identified. As a result, generators of these wastes were dumping the hazardous wastes at their will, thereby exposing general populace to a greater risk of contracting infections and dangerous diseases.

(Paragraph 1.1.15)

1.1.1 Introduction

Pollution Control is the process of reducing or eliminating the release of pollutants into the environment. It is regulated by various environmental agencies that establish limits for the discharge of pollutants into the air, water and land. Non-compliance with the laid down standards for pollution control poses a risk to human health and the environment.

Waste Management is the collection, transportation, recovery and disposal of waste, including the supervision of such operations and after-care of disposal sites. Waste poses a threat to the environment and human health if not handled or disposed of properly. Surface water contamination takes place when the waste reaches water bodies. Ground water contamination takes place when residues from waste leach into the ground water. Emissions from incinerators or other waste burning devices and from landfills can also cause air contamination. Solid waste includes bio-medical waste generated by hospitals and other health care establishments.

1.1.2 Regulatory Framework

To prevent and control water and air pollution and regulate the management and handling of waste throughout the country, Government of India (GOI) notified the following:

- **Water (Prevention and Control of Pollution) Act, 1974** (Water Act), for prevention and control of water pollution and the maintaining or restoring of wholesomeness of water;
- **Air (Prevention and Control of Pollution) Act, 1981** (Air Act), for prevention, control and abatement of air pollution;
- **Environment (Protection) Act, 1986** (EP Act) was enacted by GOI as an umbrella Act to cover all the specific and general provisions relating to pollution of the environment including the management of hazardous, bio-medical and solid waste. Under this Act, the GOI also notified the Environment (Protection) Rules in 1986;
- **Municipal Solid Waste (Management and Handling) Rules, 2000** (MSW Rules), to regulate the management and handling of municipal solid waste, by every municipality;

- **Bio-Medical Waste (Management and Handling) Rules** (BMW Rules), 1998 with amendments in 2000 and 2003 to ensure proper management of bio-medical waste. Under the Rules, the institutions generating bio-medical waste were responsible for management and handling of bio-medical waste;
- **Hazardous Waste (Management and Handling) Rules,** 1989 (HW Rules, 1989) under the aegis of EP Act. Subsequent amendments to the Rules in 2000 and 2003 defined the roles and responsibilities of the waste generator and waste monitoring agencies. The HW Rules, 1989 were repealed by the GOI and replaced by the **Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008** to regulate hazardous waste; and,
- **Recycled Plastics Manufacture and Usage Rules** (Plastic Rules), 1999 amended in June 2003 and superseded by the **Plastic Waste (Management and Handling) Rules, 2011** to regulate the use of plastics which is regarded as a major source of pollution to the environment.

In exercise of the powers conferred under Section 54 of Air Act and Section 64 of Water Act, Government of Meghalaya (GOM) prescribed the following Rules for prevention and control of air and water pollution:

- Meghalaya Air (Prevention and Control of Pollution) Rules, 1988, which came into force on 06 August 1991; and,
- Meghalaya Water (Prevention and Control of Pollution) Rules (Meghalaya Water Rules) notified in May 1996.

1.1.3 Implementing Agencies

In Meghalaya, while the Meghalaya State Pollution Control Board (MSPCB), constituted in November 1983, is the agency with the primary responsibility of enforcing the Acts and Rules relating to pollution control and waste management, the actual implementation of these Acts and Rules is the responsibility of various departments/organisations as detailed in **Table 1.1** below**.** The Public Health Engineering (PHE) Department of the State acts as the nodal department for the MSPCB and oversees its functioning.

Table 1.1

Designation/Department/ Organisation	Functions/Responsibilities	Reference of Acts/ Rules
MSPCB	Implementation/enforcement of Acts and Rules relating to prevention and control of water and air pollution, management of wastes and monitoring the implementation of rules relating to management of Municipal wastes	Clause 17 of Water and Air Acts, Rule 7 of BMW Rules and Rule 5 of MSW Rules.
Principal Secretary, PHE Department	Policy matters and enforcement of Rules relating to Air and Water Pollution, Municipal Solid Waste, Bio-medical Waste and Plastics	Section 17 of Water Act and Air Act, Rule 6 of MSW Rules, Rule 7 of BMW Rules, Rule 3 and 4 of Plastic Rules 1999 and 2011 respectively and Rules 5 and 6 of HW Rules 1989.

Designation/Department/ Organisation	Functions/Responsibilities	Reference of Acts/ Rules
Principal Secretary, Transport Department	Responsible for checking of vehicular exhaust emissions	State Government's order of February 1992 and Rule 115 of Central Motor Vehicles Rules, 1989.
Principal Secretary, Urban Affairs Department	Enforcement of MSW Rules	MSW Rules.
Deputy Commissioners	Enforcement of MSW Rules in the respective districts	MSW Rules.
Deputy Commissioners of respective districts/ Municipal Boards (MB) from February 2011	Enforcement of the Plastic Rules related to the use, collection, segregation, transportation and disposal of plastics	Rules 3 of Plastic Rules, 1999/ Rule 4 of Plastic Rules, 2011.
Municipal Boards	Implementation of MSW Rules in the jurisdiction of the particular municipalities	Rule 4 of MSW Rules and Rule 14 of BMW Rules.
Government and private hospitals	Implementation of BMW Rules in their hospitals	Rule 7 of BMW Rules.

Thus, there are multifarious authorities entrusted with the air and water pollution and management of wastes in the State.

1.1.4 Scope of Audit

The performance audit covering the period from 2006-07 to 2010-11 was conducted during April-June 2011 through test-check of records of the MSPCB and other implementing agencies[1] in three[2] out of seven districts of the State as indicated in the table below:

Table 1.2

District	Municipal Boards	Hospitals	
		Government	Private
East Khasi Hills	Shillong Municipal Board (MB)	(i) Civil Hospital, Shillong, (ii) Ganesh Das Hospital, Shillong and (iii) R.P. Chest Hospital, Shillong	(i) Nazareth Hospital, Shillong, (ii) Dr. H. Gordon Robert Hospital, Shillong, (iii) Children's Hospital, Pohkseh, Shillong, (iv) Bethany Hospital, Shillong and (v) Woodland Hospital, Shillong
West Garo Hills	Tura MB	Civil Hospital, Tura	(i) Tura Christian Hospital and (ii) Holy Cross Hospital, Tura
Jaintia Hills	Jowai MB	Civil Hospital, Jowai	Dr. Norman Tunnels Hospital, Jowai

Districts were selected considering the population[3] as well as geographical location[4]. All the three Municipal Boards (MB) in these districts (one in each district) were covered under the review. Government and private hospitals were selected on random basis.

[1] Three Municipal Boards out of six, five Government hospitals out of nine and eight private hospitals out of nine
[2] East Khasi Hills district, West Garo Hills district and Jaintia Hills district.
[3] Urban population in three selected districts: 80 *per cent* (3.62 lakh) of the total urban population of the State (4.54 lakh) as per Census, 2001.
[4] One district each from three regions of the State, *viz.* Khasi Hills, Garo Hills and Jaintia Hills.

1.1.5 Audit Objectives

The objectives of performance audit were to assess:

- the level of compliance with the provisions of the various Acts and Rules regulating air and water pollution and management of wastes;
- whether the quantum of waste being generated in the State has been accurately assessed and whether the risks to environment and health posed by wastes have been identified and adequately addressed;
- if the agencies/organisations involved in pollution control and waste management were allocated clear responsibility and accountability; and,
- if monitoring mechanisms were effective.

1.1.6 Audit Criteria

The following audit criteria were adopted:

- Acts and Rules relating to Pollution Control and Waste Management.
- Guidelines/directions principles prescribed by the GOI/Central Pollution Control Board (CPCB) for prevention, control and abatement of air/ water pollution and for waste management.
- Prescribed monitoring mechanisms.

1.1.7 Audit Methodology

The performance audit commenced with an 'entry conference' held on 10 May 2011 with the officers from the MSPCB, Health & Family Welfare (H&FW) Department, Chief Engineer, PHE Department and other officers from Urban Affairs and H&FW Departments in attendance, in which the audit objectives, criteria, audit methodology and the rationale for the selection of districts were explained.

The audit evidence was collected through issue of questionnaires, examination of records, analysis of the data collected, discussion with the concerned authorities at various levels and joint physical verification, wherever required. Audit findings were discussed with the MSPCB and various departments/agencies at an 'exit conference' held on 21 September 2011 and their views incorporated at appropriate places.

1.1.8 Acknowledgement

Audit acknowledges the cooperation extended by the various officials of the MSPCB, MB and other departments at Shillong as well as officials of Tura and Jowai MBs to Audit personnel in carrying out this assignment.

1.1.9 Audit Findings

The points noticed during the course of this review have been grouped as under and discussed in the succeeding paragraphs:

- **Management of Air and Water Pollution**
  - **Air Pollution Management** – *Air quality of the State – Vehicular pollution – Operation of coal mining – Consent to operate industries – Industrial emission – Mobile laboratory van*
  - **Water Pollution Management –** *Water quality of water bodies – Quality of trade effluents*
- **Management of Wastes**
  - **Solid Waste Management–** *Waste processing/disposal facilities set up by MBs without authorisation – Arrangement for management of solid waste – Collection of municipal solid waste – Processing and disposal facilities of municipal solid waste*
  - **Bio-medical Waste Management –** *Functioning of health institutions without authorization – Segregation of bio-medical waste – Bio-medical waste disposal facility – Compliance aspects.*
  - **Hazardous Waste Management**
  - **Plastic Waste Management**
- **Impact of pollution on health profile of the State**
- **Monitoring and Evaluation**
- **Conclusion**
- **Recommendations**

1.1.10 Management of Air and Water Pollution

Air pollution is a major concern as it leads to increased incidence of respiratory illnesses like asthma, bronchitis, emphysema, *etc.* The Air Act is an important legislative measure aimed at the prevention and control of air pollution in India. The Act mandates adherence to emission standards to be set by Pollution Control Boards and provides for sanction in case of violations by industrial units *etc.* While certain areas of Meghalaya[5] were initially declared (February 1988) as air pollution control areas by the Government of Meghalaya (GOM) under the powers conferred under Section 19 of Air Act, in November 1999, the entire State was declared as an "Air Pollution Control Area".

Water pollution affects all sources of water; *viz.* surface water, ground water, onshore and marine water resources. Water-borne diseases such as diarrhoea, typhoid, *etc.* occur because of the presence of bacteria and parasites that are transmitted by polluted water. The Water Act and the Rules made under the Act provide for the prevention and control of water pollution.

[5] Certain areas of East and West Khasi Hills, Jaintia Hills and East and West Garo Hills.

1.1.11 Air Pollution Management

1.1.11.1 Air quality of the State

The MSPCB established five Air Quality Monitoring Stations (AQMS) for monitoring the ambient air quality in the State. The air quality is determined based on four parameters[6]. The locations of the AQMS and the annual average air quality determined by these AQMS during 2006-11 are given below:

Table 1.3

Location of AQMS	**Year**	**Results of Parameters tested (annual average)**				
		SPM (up to December 2009)	**RSPM[7] (up to December 2009)**	**PM_{10} (since January 2010)**	**SO_2**	**NO_X**
		(micro gram per cubic metre or $\mu g/m^3$)				
Permissible limit of ambient air quality standards	**Industrial area**	**360**	**120**	**60**	**80/50[8]**	**80/40[8]**
	Other than industrial area	**140**	**60**	**60**	**60/50**	**60/40[8]**
Byrnihat, Ri-Bhoi	2008-09	166.90 (19)	128.70 (7)	NA	2.00	13.90
	2009-10	173.70 (24)	136.70 (14)	171.60 (186)	31.97	15.52
	2010-11	NA	NA	181.50 (202)	96.20 (92)	16.10
Lumpyngngad, Shillong	2006-07	63.40	52.10	NA	2.00	4.60
	2007-08	63.00	56.10	NA	2.00	4.60
	2008-09	63.90	57.80	NA	2.00	4.60
	2009-10	65.10	57.30	57.60	2.00	4.70
	2010-11	NA	NA	57.10	2.00	4.80
Police Bazar, Shillong	2006-07	118.80	85.50 (42)	NA	4.20	15.40
	2007-08	103.40	79.40 (32)	NA	3.30	16.50
	2008-09	117.00	90.00 (50)	NA	2.00	15.70
	2009-10	129.60	96.10 (60)	104.60 (74)	2.04	12.69
	2010-11	NA	NA	110.40 (84)	2.20	15.20
Dawki, Jaintia Hills	2009-10	73.00	60.60 (1)	87.80 (46)	3.01	7.24
	2010-11	NA	NA	69.50 (16)	2.00	5.70
Tura, West Garo Hills	2010-11	NA	NA	61.80 (3)	2.00	8.20

(Figures in parentheses indicate percentage of excess over national standards)
NA: Not applicable
Source: Information furnished by the MSPCB.

6 **Suspended Particulate Matter (SPM):** SPM consists of mist, dust, fumes and smoke and cause respiratory problems and lung damage.

Respirable Suspended Particulate Matter (RSPM)/ Particulate Matter-10 (PM_{10}): One of the major sources of RSPM/PM_{10} is vehicles especially diesel vehicles. RSPM may cause chronic and acute effects on human health, particularly the pulmonary function and respiratory problems. Major concerns for human health from exposure to PM_{10} include effects on breathing and respiratory systems, damage to lung tissue, cancer and premature death.

Sulphur Dioxide (SO_2): SO_2 is a gas, the main source of which in the air is industrial activity that processes material containing sulfur. It is also present in motor vehicle emissions due to fuel combustion. Breathing of SO_2 may causes coughing, wheezing and shortness of breath.

Nitrogen Oxide-X (NO_X): One of the sources of NO_X is conversion of fuel bound nitrogen during combustion. Inhaling of particles present in NO_X may cause or worsen respiratory diseases and may also aggravate existing heart disease.

7 Monitoring on SPM and RSPM had been dispensed with since introduction of new parameter PM_{10} in January 2010.

8 Revised in November 2009.

As can be seen from the above table, the annual average concentration of all the parameters tested in the AQMS at Lumpyngngad during 2006-11 was within the prescribed standards. In two AQMSs (Police Bazar and Dawki), while the concentrations of SPM, SO_2 and NO_X were within the prescribed standards, the concentration of RSPM/PM_{10} far surpassed the prescribed standards. Concentrations of RSPM/PM_{10} during 2008-11 and SO_2 during 2010-11 in the air quality at Byrnihat were beyond the prescribed standards. The air quality of Tura was also not satisfactory because of excessive PM_{10} in the air tested during 2010-11.

Analysis of year-wise data further revealed the following:

- **Police Bazar, Shillong**: Concentration of RSPM air quality tested at this station during 2009-10 (up to December 2009) was in excess of 60 *per cent* of prescribed standards against 42 *per cent* during 2006-07. During January-March 2010 and 2010-11, the concentration of PM_{10} was much in excess of prescribed standard (74 *per cent* and 84 *per cent*).
- **Byrnihat**: While RSPM was in excess of 7 *per cent* and 14 *per cent* of prescribed standards during 2008-09 and 2009-10 (up to December 2009), the concentration of PM_{10} exceeded the prescribed standards during 2010-11. Unlike other stations, the concentration of SO_2 in the air quality tested in this centre exceeded the prescribed standard by 92 *per cent* during 2010-11.
- **Dawki**: While there was marginal increase of one *per cent* in the concentration of RSPM during 2009-10 (up to December 2009), the concentration of PM_{10} exceeded the prescribed standards by 46.33 *per cent* during January-March 2010 and 15.83 *per cent* during 2010-11.
- **Tura**: The concentration of PM_{10} in the air quality tested in this station during 2010-11 marginally exceeded the prescribed standard by one *per cent*.

Excessive concentration of RSPM/PM_{10} in ambient air tested in four out of five AQMSs thus, clearly indicated that the air in these four areas (Police Bazar, Shillong, Byrnihat, Dawki and Tura) was polluted thereby exposing the general populace to a greater risk of contracting diseases like breathing and respiratory problems, damage to lung tissue, cancer, *etc.* which are caused due to excessive concentration of RSPM/PM_{10}. The MSPCB stated (July 2011) that though the Commissioner of Transport was requested (January 2011) to control emission of air pollutants from automobiles, no feedback was received from him. As regards air pollution in Byrnihat, the matter was taken up by the MSPCB with the major air polluting units at Byrnihat only in June 2011.

1.1.11.2 Vehicular pollution

As per Section 17 of Air Act, the MSPCB is responsible for enforcing the Air Act. To control air pollution due to emissions from vehicles, the State Government entrusted (February 1992) the responsibility for checking vehicular exhaust emission to the Transport Department.

As per Section 56 of Motor Vehicles Act, 1988 and Rule 62 of Central Motor Vehicles Rules, 1989, it is mandatory for all vehicles to obtain a fitness certificate, which is to be renewed[9] after two years, only after conducting certain tests including exhaust emission tests for pollution control certificate. As of 31 March 2011, 1,47,987 vehicles were registered in the State, of which 1,18,209 vehicles were registered in the three selected districts. Out of 1,18,209 vehicles, 90,915 vehicles were more than two years old. Information regarding number of vehicles for which emission tests were conducted by the Transport Department was however, not furnished, despite a request (August 2011) to the District Transport Officers of the three selected districts. However, the MSPCB had established a station at its office premises at Shillong for monitoring the exhaust emission from vehicles. This station had conducted vehicular emission tests for 7,369 vehicles (petrol driven: 7,195; diesel driven: 175) during 2006-11.

The results of the vehicular emission tests of these vehicles showed that the emission of 4 *per cent* of petrol driven vehicles and 57 *per cent* of diesel driven vehicles were above the permissible limit. Obviously, this was an alarming situation which led the MSPCB to conclude that (January 2011) "*there was an increase in the concentration of* SO_2*,* NO_X *and RSPM levels which were mainly due to the emission of pollutants from automobiles*". Thus, although vehicular smoke was a major concern with regard to air pollution in the State, the Transport Department failed to comply with the requirements of the Act and Rules to check the pollution created by vehicular smoke.

Vehicular smoke

To prevent further deterioration of the ambient air quality in the State capital in particular and the State in general, the MSPCB opined that there was an immediate need for strict implementation of the standards for emission of air pollutants from automobiles. The MSPCB, therefore, suggested (January 2011) to the State Government to issue necessary instructions to the concerned authorities in-charge of

[9] Initial certificate of compliance with pollution standards is to be issued by the manufacturer of the vehicle.

registration of motor vehicles under the Motor Vehicles Act, 1988 to ensure that the standards for emission of air pollutants from automobiles are complied with by each and every vehicle registered in the State. Action taken by the State Government on the suggestions of the MSPCB, though called for (October 2011), had not been furnished.

1.1.11.3 Operation of coal mining

As per Section 21(1) of Air Act, no person shall, without previous consent of the MSPCB, establish or operate any industrial plant in an air pollution control area. In Meghalaya, no mining policy was framed.

Coal mining is an activity which discharges pollutants into the atmosphere. The number of coal mines in the State, though called for from the Director of Mineral Resources (DoMR) in May 2011, was not furnished. According to the DoMR, coal mines in the State were being operated without any mining lease granted by the State Government and as such, the number of mines, location, area, *etc.* were not available. However, as of 31 March 2011, the MSPCB had received 11 applications (July 2006 to June 2010) from coal miners for grant of consent to establish coal mining projects in the State. But, consent to operate was not granted by the MSPCB to any of these coal miners due to non-fulfillment of the prescribed compliance criteria.

As per information furnished (June 2011) by the Director of Mineral Resources, GOM, 305.58 lakh MT of coal was extracted in the State during 2006-11 by coal miners. Thus, in the absence of any mining policy as well as approval/consent of the MSPCB as required in even a single case, coal mining was being carried out in the State rampantly in violation of the mandatory provisions of the Act. Consequently, the discharge of pollutants into atmosphere due to unauthorised coal mining in the State remained out of the purview of the MSPCB.

1.1.11.4 Consent to operate industries (other than mining activities)

As per Section 21 of Air Act and Section 25 of Water Act, prior consent of the MSPCB is mandatory for establishing or operating an industrial plant in air pollution control area. Further, as per Rule 28(2) of Meghalaya Water Rules, consent granted to industries for allowing them to function is required to be renewed annually on realisation of the prescribed fee.

As of March 2011, consents were granted by the MSPCB to 886 industrial units in the State of which for 133 units, the consents had expired between March 2007 and February 2011, as detailed below:

Table 1.4

Sl. No.	Number of industrial units	Due date of renewal
1.	02	March 2007
2.	13	Between May 2007 and March 2008
3.	27	Between April 2008 and March 2009
4.	46	Between April 2009 and March 2010
5.	45	Between April 2010 and February 2011
	133	

Source: Information furnished by the MSPCB.

None of the 133 units applied for grant of renewal of consent even after four months to five years of expiry of the validity of consent. The MSPCB also had not initiated any action against the erring units as per Section 39 of the Air Act and Section 45-A of Water Act, which provides for punishment with imprisonment for a term of up to three months or with fine up to ₹ 10,000 or with both in case of failure or contravention of the provisions of this Act. Besides, ₹ 45.98 lakh was due as consent renewal fee from these units.

The MSPCB stated (October-November 2011) that 95 out of 133 industrial units had renewed their consent and for the remaining 38 units, reminders were issued for depositing the required renewal fee.

1.1.11.5 Industrial emission

As per Clause 17 of Air Act, 1981, the MSPCB was to inspect air pollution control areas as it may think necessary, assess the quality of air therein and take steps for the prevention, control or abatement of air pollution in such areas. The frequency of such monitoring with respect to specified highly polluting industries was to be once in two months and for other industries, once in every six months.

Out of 493 units identified by the MSPCB as polluting under the Air and Water Acts, ambient air quality of only 12 (2.43 *per cent*) polluting units situated in Jaintia Hills (seven units), East Khasi Hills (three units) and Ri-Bhoi (two units) Districts were measured by the MSPCB in piecemeal manner ranging from one to three times each during 2006-11. As per the results of parameters measured, two out of five parameters (RSPM and PM_{10}) of ambient air quality in respect of eight out of 12 industrial units exceeded the prescribed standards[10] by 19 *per cent* to 301 *per cent* (PM_{10}) and 2 *per cent* to 21 *per cent* (RSPM). This indicated that the air in these areas was polluted due to industrial emission. The extent of air pollution caused by remaining 481 (93 *per cent*) units was, however, not assessed by the MSPCB.

1.1.11.6 Mobile laboratory van

To monitor air/water quality at remote localities, the MSPCB procured (March 2001) a mobile laboratory van (MLV) at a cost of ₹ 19.27 lakh. The MLV was operationalised in February 2004, after a delay of three years due to delay in procurement of equipment, and used for monitoring the water/air quality at four remote locations[11] for one month only (February 2004). During March 2004 to August 2005, the MLV was under repair. Thereafter, the same was used for monitoring air quality at Police Bazar in the capital city of Shillong during September 2005 to May 2007 as the existing NAMP[12] station at Police Bazar was not functioning. Since June 2007, the MLV remained inoperative due to some mechanical defects. However, no action was initiated to get the van repaired.

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[10] PM_{10}: 100 µg/m³; RSPM: 150 µg/m³
[11] Byrnihat, Smit, Pomlum and Pomlakrai
[12] National Air Quality Monitoring Programme

The MSPCB stated (June 2011) that since the body of the MLV was oversized, it could not be used in hilly terrain unless modifications were carried which could not be done due to financial constraints. The reply indicated that the oversized van was procured without properly determining the feasibility of its use in remote localities. The contention of the MSPCB regarding financial constraints was not acceptable because the MSPCB failed to even utilise funds of ₹ 2.33 crore to ₹ 4.17 crore available during 2006-11. The MSPCB further stated (October 2011) that the modification of the MLV was under process.

1.1.12 Water Pollution Management

1.1.12.1 Water quality of water bodies

As per the 'Uniform Protocol on Water Quality Monitoring Order, 2005' notified by the Ministry of Environment & Forest in June 2005, the frequency of sampling of surface water shall be a combination of baseline, trend and flux or impact stations[13]. The baseline stations shall be monitored four times a year for perennial rivers including lakes and three to four times a year for seasonal rivers. Trend stations shall be monitored with an increased frequency of once in a month. Flux or impact stations shall be monitored 12 to 24 times in a year depending upon pollution potential or importance of water use. Similarly, the ground water bodies shall be classified as baseline stations and frequency of monitoring shall not be less than two times in a year.

The actual number of water bodies in the State was not identified by the MSPCB. However, the MSPCB had monitored the water quality of 31 water bodies in six districts during 2006-10. Of these, the water quality of 13 water bodies was monitored as per the prescribed frequency, the results of which are given below:

Table 1.5

Sl. No.	Name of water bodies	District	Classification[14] of water as per results of monitoring during 2006-10
1.	Thadlaskein lake	Jaintia Hills	B
2.	Simsang river	East Garo Hills	B
3.	Ganol river	West Garo Hills	B
4.	Mawpdang spring	East Khasi Hills	B
5.	Police Bazar spring	East Khasi Hills	B
6.	Wah-U-Dkhar spring	East Khasi Hills	B
7.	Umsahep spring	Jaintia Hills	B
8.	Narbong well	Ri-Bhoi	B
9.	Myntdu river	Jaintia Hills	C

[13] **Baseline Stations:** monitoring location where there is no influence of human activities. **Trend Stations:** monitoring location to show how a particular point, on a water course, varies over time normally due to the influence of human activities. **Flux or Impact Stations:** location for measuring the pollutant on main river and extent of pollution due to human interference or geological feature at any point of time.

[14] Class 'A": Drinking water source without conventional treatment but after disinfection; 'B': Outdoor bathing organized 'C': Drinking water source with conventional treatment followed by disinfection; 'D': Propagation of wildlife and fisheries; 'E'; Irrigation and industrial cooling controlled waste disposal; 'U': Unclassified.

Sl. No.	Name of water bodies	District	Classification[14] of water as per results of monitoring during 2006-10
10.	Wards lake	East Khasi Hills	D
11.	Umtrew river	Ri-Bhoi	D
12.	Umiam lake	Ri-Bhoi	D
13.	Kyrhukhla river	Jaintia Hills	U

Source: Water quality monitoring report of the MSPCB.

The results of monitoring of 13 water bodies indicated that water of none of these bodies was fit for drinking. The water of the remaining 18 water bodies, as indicated below, was not monitored regularly:

Table 1.6

District	Sl.No.	Name of Water bodies (Perennial/seasonal rivers)	Result/Class
East Khasi Hills	1	Umkhen River	A
	2	Umsohlang River	D
	3	Umkhrah River	E
	4	Umshyrpi River	E
	5	Lapalang River	B
Jaintia Hills	6	Lukha River	A, D
	7	Umjri River	D
	8	Myntang River	B
	9	Umiurem River	B & un-classed
Ri-Bhoi	10	Umsan River	A,C,D
West Garo Hills	11	Ringrey	B,C
	12	Rongkhon	C
East Garo Hills	13	Manda River	A
	14	Damring River	A
West Khasi Hills	15	Umngi River	B
	16	Rilang River	A,B
	17	Rwiang River	B
	18	Khri River	A,B

Source: Water quality monitoring report of the MSPCB.

Based on monitoring of these water bodies conducted in a piecemeal manner by the MSPCB, it was observed that the water of three bodies was classified under category 'A' and the water of the remaining 15 water bodies was classified under categories 'B' to 'E' and 'U' and thus, not fit for drinking. Despite this, the MSPCB did not carry out regular monitoring of water quality of these 18 water bodies.

The MSPCB admitted the fact and stated (May 2011) that regular monitoring of 18 water bodies could not be carried out due to financial and manpower constraints. The contention of the MSPCB regarding financial constraints was not acceptable because the MSPCB even failed to utilise available funds at its disposal as pointed out in paragraph 1.1.11.6.

1.1.12.2 Quality of trade effluents

Under Rule 29 of Meghalaya Water Rules, the MSPCB was to keep a constant check on the quality of effluents discharged into the natural streams and to monitor samples at fixed or suitable points in the streams.

According to the MSPCB, in Meghalaya, 99 out of 493 polluting industrial units were generating trade effluents. Of these, the MSPCB had carried out sample tests of trade effluents in only five of these industrial units *i.e.* one *per cent,* during 2006-11 to determine the standard of effluents. The results of sample tests are tabulated below:

Table 1.7

Sl. No.	Industrial Unit and date of testing	Parameters tested (Prescribed standards in bracket)				
		Potentio Hydrogenia (PH)	Biochemical oxygen demand	Oil & Grease	Total Suspended Solid	Nitrate-N
		Milligram per litre or mg/1				
1.	Hindustan Coca Cola Limited, Byrnihat Ri-Bhoi District (09 September 2010)	(6.5-8.5) 7.9	(30.0) 7.7	(10.0) 1.0	(100.0) 40.0	(10.0) -
2.	Central Dairy, Mawiong East Khasi Hills District (24 August 2010)	(6.5-8.5) 7.9	(350.0) 308.0	(10.0) 14.5 *(45%)*	(150.0) 20.0	(10.0) 1.1
3.	M/s Rani Motors Services Unit, Sunny Hills, Shillong East Khasi Hills District (5 October 2010)	(5.5 – 9.0) 7.9	-	(10.0) 51.2 *(412%)*	(100.0) 40.0	10.0 2.0
4.	Lake View Inn, Shillong, East Khasi Hills District (09 & 25 November 2010 & 09 February 2011)	(5.5 – 9.0) 7.4 6.5 5.6	(100.0) 182.0 *(82%)* 152.0 *(52%)* 145.0 *(45%)*	(10.0) 58.5 *(485%)* 22.2 *(122%)* 15.0 *(50%)*	(100.0) 45.0 10.0 105.00 *(5%)*	-
5.	Shillong Club & Residential Quarters, East Khasi Hills District (09 November 2010)	(5.5 – 9.0) 4.9	(100.0) 406.0 *(306%)*	(10.0) 881.0 *(8710%)*	(100.0) 570.0 *(470%)*	-

Source: Trade effluents monitoring reports of the MSPCB

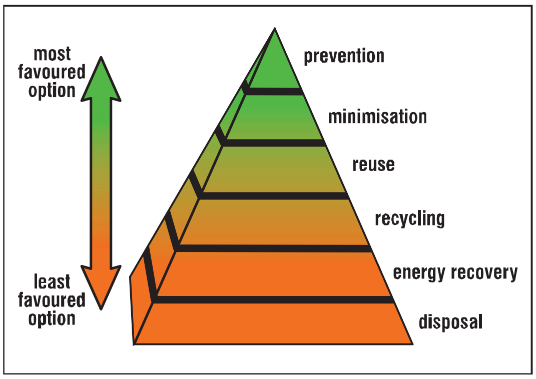
The results of sample test indicated that trade effluents discharged by the first unit were within the prescribed standards. The concentration of biochemical oxygen demand, oil and grease and total suspended solid in effluents discharged by the fifth units had surpassed the prescribed standards by 5 to 8,710 *per cent.* In the second and third units, the concentration of oil and grease in effluents had surpassed the prescribed standards by 45 to 412 *per cent.* In respect of the fourth unit, the results of sample test conducted three times during 2010-11 indicated that though there were declining trends in PH, biochemical oxygen demand and oil and grease, these were still above the prescribed standards. The action taken report against these industrial units for failure to maintain the quality of trade effluents as per prescribed standards, though called for (July 2011), had not been received (December 2011).

The above facts not only reflected the negligible and ineffective monitoring of trade effluents by the MSPCB but the extent of pollution caused to streams due to discharge of trade effluents by 99 *per cent* of the remaining polluting industrial units also remained unassessed.

Management of Wastes

1.1.13 Solid Waste Management

Solid waste includes waste generated by households, commercial and business houses, market yards, construction and demolition waste.



MSW Rules prescribe that priority should be given to extract the maximum practical benefits from the waste and prevent and minimise the waste by adopting the strategy of 'Three Rs' (reduce, reuse and recycle) depicted in the waste hierarchy model shown in the pictorial.

1.1.13.1 Waste processing/disposal facilities set up by municipal boards without authorisation from the MSPCB

According to Rule 4(2) of the MSW Rules, every municipal authority or an 'operator of a facility'[15] was to obtain authorisation for setting up waste processing and disposal facility including landfills from the MSPCB. The authorisation should be valid for a given period and fresh authorisation would be required after expiry of the validity period.

Out of six MBs in the State, only two MBs, *viz.* Shillong MB and Williamnagar MB obtained authorisation from the MSPCB for their waste disposal facilities. However, both the MBs failed to renew their authorisations after expiry of the validity period in December 2003 (Shillong) and December 2005 (Williamnagar). The MSPCB on its part, had neither taken any action against these two MBs or against the other four defaulting MBs[16] as per Section 15 of the EP Act[17] which provides for punishment with imprisonment for a term of up to five years or with fine up to ₹ 1 lakh or with both in case of failure or contravention of the provisions of this Act. The MSPCB also did not monitor the system for management of municipal solid waste (MSW)[18] adopted by these MBs, as required under Rule 6(1) of MSW Rules. Since all the six

[15] **"operator of a facility"** means a person who owns or operates a facility for collection, segregation, storage, transportation, processing and disposal of municipal solid wastes and also includes any other agency appointed as such by the municipal authority for the management and handling of municipal solid wastes in the respective areas.

[16] (i) Tura Municipal Board, (ii) Jowai Municipal Board, (iii) Resubelpara Municipal Board, (iv) Baghmara Municipal Board.

[17] The BMW Rules, MSW Rules and HW Rules were framed in exercise of the powers conferred under Sections 3, 6 and 25 of the EPA.

[18] The mixture of garbage and rubbish is known as urban refuse or municipal solid waste.

MBs in the State had been functioning without authorisation, standards relating to management of waste being adopted by them remained un-monitored.

The MSPCB stated (October 2011) that invoking harsh penal action under EP Act, 1986 against the defaulting MBs would not be appropriate because Shillong and Williamnagar MBs were submitting annual reports regularly and the remaining MBs had not furnished the project reports for setting up of MSW disposal facilities. The reply is not acceptable because imposition of penal action was mandatory as per the EP Act in the event of failure either to renew or to obtain authorisation.

The Urban Affairs Department (UAD) stated (December 2011) that fresh instructions had been issued to all MBs for obtaining/renewal of authorisation.

1.1.13.2 Arrangement for management of solid waste

Compliance criteria for management of solid waste and the existing arrangements in the three selected MBs are given below:

Table 1.8

Stage	Parameter	Compliance criteria	Present arrangement
Stage 1	Collection	MBs shall adopt house-to-house collection or community bin collection of MSW.	Generally manual collection from community bins. However, door to door collection was being practiced in some wards of Shillong MB and Jowai MB.
Stage 2	Storage	Bins for storage of bio-degradable waste shall be painted in green, those for recyclable waste in white and those for other waste in black.	Permanent open community bins and movable circular bins were installed in some places but the bins were neither as per prescribed design nor in different colours as prescribed in the MSW Rules in all three selected MBs.
Stage 3	Transportation	The vehicles used for transportation shall be covered so that waste is not visible to public and to avoid exposure to open environment.	In all the selected MBs, wastes were transported by uncovered trucks.
Stage 4	Segregation	MBs shall organise awareness programmes to ensure community participation in waste segregation.	Two out of three selected MBs, *viz.* Shillong and Jowai, had organised awareness programmes.
Stage 5	Processing	MBs shall adopt suitable technology or combination of such technologies to make use of waste so as to minimise burden on landfill site.	Except Tura MB, the other two selected MBs did not have functional waste processing plants.
Stage 6	Disposal	Landfill sites used for final disposal shall be restricted to the waste, which is not suitable for recycling or biological processing.	In the three selected MBs, MSW was disposed off in open dumping sites.

1.1.13.3 Collection of municipal solid waste

As per the records in the three selected MBs, the quantum of MSW generated and collected per day during 2006-07 to 2010-11 in the three selected municipalities is given below:

Table 1.9

Sl. No.	Name of Municipal Board	Generation of waste per day in MT	Quantity collected per day in MT (percentage)
1.	Shillong Municipal Board	120.00	100.00 (83)
2.	Tura Municipal Board	65.66	18.35 (28)
3.	Jowai Municipal Board	25.00	20.00 (80)
Total		**210.66**	**138.35 (66)**

Source: Records of Municipal Authorities

As can be seen from the above table, none of the selected municipal authorities collected 100 *per cent* MSW generated during 2006-11. During the period under review, out of 210.66 MT of MSW generated per day in the three municipal areas, 138.35 MT (i.e. 66 *per cent*) were collected and disposed of leaving 72.31 MT (34 *per* cent) uncollected. The situation of Tura MB was the worst as only 28 *per cent* of the total waste generated per day was collected for disposal. In Shillong MB, 83 *per cent* of wastes generated during 2006-11 were cleared.

Dumping of MSW into Rongkhon stream near Tura super market

Open dustbin near MSPCB's office, Shillong

Burning of wastes at Laitumkhrah

1.1.13.4 Processing and disposal facilities of municipal solid waste

As per Schedule-I appended to the MSW Rules, the municipal authorities/State Government were to improve existing landfill sites by 31 December 2001, identify landfill sites for future use and make the sites ready for operation by 31 December 2002 and set up waste processing and disposal facilities by 31 December 2003. However, no landfill sites to dispose MSW in a scientific manner were set up by any of the six municipalities of the State even after a lapse of over nine years (June 2011), reasons for which, though called for (June 2011) from the Urban Affairs Department, had not been furnished (December 2011).

As regards waste processing facilities, only two out of six MBs, *viz.* Shillong and Tura MBs, had so far set up the said facilities[19]. The processing facility, *viz.*, compost plant of Shillong MB at Mawiong, was set up by the Board through two private firms[20] at a cost of ₹ 4.63 crore (including Shillong MB's contribution of ₹ 2.27 crore). The plant was commissioned in December 2002 and was not functioning regularly since April 2004 and became completely non-functional since December 2006 due to break-down of machinery. The plant was not repaired by the firms despite requests (February 2007 and October 2010) by the Shillong MB.

As per agreement executed (November 2000) with the firms, the Shillong MB was to earmark one hectare of land for sanitary landfill for dumping of remnants from the processor. But the landfill site was not provided by the Shillong MB and waste/garbage piled up in the surrounding areas of the plant, trenching ground and approach roads, which resulted in a unhygienic environment, foul smells, multiplication of flies, *etc.* which led to public resentment. To overcome the situation,

[19] Vermi composting plant at Tura MB and Compost Plant at Shillong MB.
[20] M/s Excel Enterprise, Mumbai and M/s Anderson Biotech Private Ltd., Shillong.

the Shillong MB cleared (June 2008 to November 2009) the accumulated garbage from the compost plant site by engaging excavators through private contractors at a cost of ₹ 55.88 lakh. This could have been avoided had the Shillong MB earmarked the land as per agreement and set up a landfill site and stopped waste intake at the compost plant site.

Dumping site at Mawiong, Shillong MB

Thus, failure to set up waste processing facilities by four municipal authorities and non-functioning of compost plant at one MB coupled with non establishment/ identification of landfill sites by any of the MBs resulted in the MSW generated in six of the largest urban agglomerations in the State being disposed off haphazardly at six[21] open dumping sites with serious adverse implications on health and environment.

Open dumping site, Tura MB

[21] (i) Shillong- Riat Khwan, Mawiong, (ii) Tura- Rongkongre, (iii) Jowai- Myngkjai, (iv) Resubelpara- Resu Dekachang, (v) Williamnagar- Ampangdamgre and (vi) Baghmara- Jongkhol

Dumping site (adjacent to Myngkjai river), Jowai MB

The UAD stated (December 2011) that all the six municipal towns have their own designated dumping ground, but due to financial constraints, waste processing facilities could be set up only in Shillong and Tura.

1.1.14 Bio-medical Waste Management

Bio-medical wastes (BMW), such as discarded drugs, waste sharps, microbiology and biotechnology waste, human anatomical waste, *etc.,* are generated by hospitals, nursing homes, clinics, dispensaries, veterinary hospitals, *etc.* The BMW Rules regulate the management of bio-medical wastes. Audit scrutiny revealed the following shortcomings in management of BMW in the State.

1.1.14.1 Functioning of health institutions without authorisation from the MSPCB

Every institution[22] generating, collecting, storing, transporting, treating, disposing and/or handling bio-medical waste[23] has to obtain authorisation from the MSPCB and renew it after every three years. Authorisations specify the compliance criteria and are subject to verification by the MSPCB.

According to information furnished (May 2011) by the MSPCB, there were 701 health institutions in the State as of 31 March 2011. Of these, 178[24] health institutions (Government: 161; Private: 17) were required to obtain authorisation from the MSPCB and the remaining 523 institutions (sub-centres, dispensaries, *etc.*) were exempted from such authorisation. But only 39 out of 178 institutions had obtained authorisation since the promulgation (July 1998) of BMW Rules and 139 institutions (Government: 135; Private: 4) were functioning without authorisation. Out of 39 institutions, nine institutions failed to renew their authorisation after expiry of validity period in December 2002 (one institution), June 2003 (two institutions), December

[22] Any institution generating bio-medical waste, which includes a hospital, nursing home, clinic dispensary, veterinary institution, animal house, pathological laboratory and blood bank.

[23] Except those institutions who are treating and rendering service to less than 1,000 patients per month.

[24] Hospitals: 22; Community Health Centres (CHC): 27; Public Health Centres (PHC): 117; Veterinary hospitals: 4; Clinics/dispensary *etc.*: 8

2005 (one institution), December 2008 (four institutions) and December 2009 (one institution) and were thus, functioning without valid authorisations for periods from one to eight years. The H&FW Department had neither taken any initiative to bring 135 Government institutions under the ambit of BMW Rules nor was any penal action initiated by the MSPCB under Section 15 of EP Act against the defaulting Government and private institutions.

Bio medical wastes at the premises of Tura Civil Hospital

Scrutiny of records of 13[25] selected hospitals located in three[26] selected districts further disclosed that no institution had maintained any record relating to the quantity of BMW generated, collected, *etc.* as required under Rule 11 of the BMW Rules. The quantities of BMW generation shown in their annual reports, submitted to the MSPCB were based on approximation.

Thus, failure on the part of both the Government and the MSPCB led to un-authorised functioning of 148 health institutions (Government:142 ; Private:6) in the State and the disposal or treatment of BMW of these institutions was not subject to verification by the MSPCB as prescribed under the BMW Rules.

The MSPCB stated (October 2011) that the matter regarding grant of authorisation to defaulting health institutions was under pursuance with the concerned departments.

1.1.14.2 Segregation of bio-medical waste

According to Rule 6 of BMW Rules, (a) BMW was not to be mixed with other waste and had to be segregated into containers/bags at the point of generation, (b) the containers/bags were to be colour coded and labeled prior to their storage and transportation and treatment and (c) untreated BMW was to be transported only in such vehicle as may be authorised for the purpose.

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[25] (i) Shillong Civil Hospital, (ii) Ganesh Das Hospital, Shillong, (iii) R.P. Chest Hospital, Shillong, (iv) Bethany Hospital, Shillong, (v) Woodland Hospital, Shillong, (vi) Nazareth Hospital, Shillong, (vii) Tura Civil Hospital, (viii) Tura Christian Hospital, (ix) Holy Cross Hospital, Tura, (x) Jowai Civil Hospital, (xi) Dr. Norman Tunnel's Hospital, Jowai, (xii) Dr. H. Gordon Roberts Hospital, Shillong and (xiii) Children's Hospital, Shillong

[26] East Khasi Hills, West Garo Hills and Jaintia Hills Districts

Records of 13 selected hospitals in the three selected districts showed that segregation of BMW was practiced in ten[27] out of 13 hospitals. However, labeling and colour coding of BMW waste was not done in any of the 13 hospitals. Besides, there was no separate vehicle for collection and transportation of BMW in five[28] out of six MBs of the State.

In absence of labeling and colour coding and non availability of separate vehicles for collection and transportation of BMW, the BMW were mixed up with other solid wastes and disposed of in the open dumping sites indiscriminately. The MSPCB also failed to ensure that BMW were segregated, labeled, colour coded, transported and disposed off according to prescribed rules.

Un-segregated solid waste at Mawiong Compost Plant

BMW mixed with MSW at Jowai dumping site

[27] (i) Civil Hospital, Shillong, (ii) Ganesh Das Hospital, Shillong, (iii) Nazareth Hospital, Shillong, (iv) Children's Hospital, Shillong, (v) Dr. H. Gordon Roberts Hospital, Shillong, (vi) Holy Cross Hospital, Tura, (vii) Jowai Civil Hospital, (viii) Dr. Norman Tunnel's Hospital, Jowai, (ix) Bethany Hospital Shillong and (x) Woodland Hospital Shillong.

[28] Except Shillong MB.

The MSPCB stated (June and October 2011) that segregation and labeling/ colour coding of BMW by all the health institutions could not be ensured due to lack of trained manpower and that it was beyond the mandate of the MSPCB to ensure that every institution had trained manpower. The reply was not acceptable as it was the MSPCB's mandate to bring about improvement in compliance of Rules regulating the processing/disposal of BMW generated by health institutions in the State.

1.1.14.3 Bio-medical waste disposal facility

Rule 5(2) of the BMW Rules stipulate that every institution generating biomedical waste shall set up requisite biomedical waste treatment facilities for different categories of BMWs or ensure requisite treatment of waste at a common waste treatment facility or any other waste treatment facility. Schedule I of BMW Rules *inter alia* prescribes the following treatment and disposal facilities for different kinds of BMW:

Table 1.10

Sl. No.	Category of BMW	Procedure prescribed for treatment and disposal
1.	Human anatomical waste (human tissues, body parts, *etc.*)	Incineration/deep burial
2.	Microbiology and biotechnology waste (wastes from laboratory cultures, dishes and devices used for transfer of cultures, *etc.*)	Local autoclaving/ microwaving/ incineration
3.	Waste sharps (needles, syringes, blades, glass, *etc.*)	Chemical treatment/autoclaving, micro-waving and mutilation/ shredding
4.	Discarded medicines (wastes comprising of outdated, contaminated and discarded medicines)	Incineration/destruction and drugs disposal in secured landfills
5.	Animal wastes (animal tissues, organs, bleeding parts, *etc.*)	Incineration/deep burial
6.	Soiled waste (items contaminated with blood and bloody fluids including cotton, dressings, soiled plaster casts, *etc.*)	Incineration/ autoclaving/microwaving

According to information furnished (May 2011) by the MSPCB, 132 out of 178 institutions were disposing BMWs adopting different methods. As regards remaining 46 institutions, no such information was furnished, though called for in April 2011. The position of disposal of BMW generated by 132 institutions was as under:

Table 1.11

Sl. No.	Categories of institutions	Number of institutions	Category of BMW normally generated	Disposal/treatment facilities of BMW available with the institutions
1.	Hospitals	19	Human anatomical waste, waste sharps, soiled waste, *etc.*, Microbiology and biotechnology waste	Incineration (1), Incineration, sharp pit and chemical disinfection (1), Chemical disinfection (10), Chemical disinfection and deep burial (6), Chemical disinfection and shredder (1) and Chemical disinfection, sewage treatment plant and sharp pit (1)
		1	Waste sharps, soiled waste, *etc.*	Chemical disinfection
		1	-do-	Chemical disinfection and deep burial
2.	CHC/PHC	103	Waste sharps, soiled waste and, discarded medicines	Chemical disinfection and deep burial

Sl. No.	Categories of institutions	Number of institutions	Category of BMW normally generated	Disposal/treatment facilities of BMW available with the institutions
3.	Veterinary hospital	1	Animal waste and soiled waste	Chemical disinfection
		2	-do-	Chemical disinfection and deep burial
4.	Clinics/ dispensaries/ Research Centre	5	Waste sharps and soiled waste	Chemical disinfection
		132		

(Figures in brackets indicate number of hospitals)
Source: Information furnished by the MSPCB.

Analysis of above data revealed that only two out of 132 institutions, *viz*., Civil Hospital, Jowai and North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences (NEIGRIHMS), Shillong, were disposing their BMWs as per procedure prescribed under BMW Rules. The disposal/treatment facilities of BMWs available with the remaining 130 institutions were not in conformity with the prescribed procedure. Audit scrutiny revealed the following further irregularities:

➢ Out of 130 institutions, six institutions were provided with six incinerators by the H&FW Department (cost: ₹ 1.09 crore) for disposal of BMWs, as detailed below:

Table 1.12

Sl. No.	Name of hospitals	Date of installation	Present status
1.	Civil Hospital, Nongpoh	December 2008	Not commissioned
2.	Civil Hospital, Williamnagar	January 2009	-do-
3.	Civil Hospital, Tura	January 2009	-do-
4.	Civil Hospital, Shillong	April 2004	Not functioning since November 2006
5.	Ganesh Das Hospital, Shillong	May 2002	Not functioning since May 2006
6.	R.P. Chest Hospital, Shillong	February 2003	Not functioning since September 2004

Source: Information furnished by the Director of Health Services (MI), Meghalaya.

Out of six incinerators, three incinerators placed at Civil Hospitals, Tura, Williamnagar and Nongpoh were not commissioned even after two years of installation due to lack of trained staff, non-availability of electricity and non-completion of electric wiring respectively. The remaining three incinerators at Civil Hospital, Shillong, Ganesh Das Hospital, Shillong and R.P. Chest Hospital, Shillong were not functioning for periods ranging from four to six years due to mechanical defects. According to information furnished (April 2011) by the Director of Health Services (MI), the matter regarding the defects in the incinerators at Ganesh Das Hospital and Civil Hospital, Shillong was taken up with the supplying firm by the hospitals concerned. However, no such action was taken in respect of the incinerator at R.P. Chest Hospital.

➢ Out of the remaining 124 institutions, 75 institutions were located in three selected districts (Hospital: 11; Clinic: 3; Dispensary: 1; Research Centre: 1; CHC: 14; PHC: 42; Veterinary hospital: 3). According to the MBs of the three selected districts, BMWs generated by the institutions under their jurisdiction were collected by them from the premises of these institutions.

Rule 14 of the BMW Rules (amended in 2000) provides that, without prejudice to Rule 5 *ibid*, the MBs shall be responsible for providing suitable common disposal/incineration sites for the BMWs generated in the area under their jurisdiction.

Out of six MBs, a common bio medical treatment facility was set up in October 2007 only by one MB, *viz.* Shillong MB at Mawiong. The common facility had only one incinerator, which was also non-functional since 2008 due to breakdown of exhaust fan. The Shillong MB had no other facilities such as an autoclave, microwave or a shredder to treat different categories of BMW. The Shillong MB was collecting all categories of BMW generated by 18 institutions (including three institutions having non-functional incinerator) and in the absence of the requisite facilities, was disposing the BMW irregularly in contravention of the BMW Rules. During physical verification of common facility carried out (June 2011) by Audit with the Executive Engineer, Shillong MB, it was observed that the defective incinerator was not yet operational and the BMW collected from various health institutions of Shillong were either dumped in a pit near the site of the incinerator or openly dumped near the pit. The pit was neither secured nor lined with impermeable material to prevent leaching into the ground water table.

Open dumping of bio-medical waste at Mawiong

In the three selected districts there were 59 institutions (CHC: 14; PHC: 42; Veterinary Hospital: 3) operating outside the territorial jurisdiction of the MBs. The manner of disposal of the BMW generated by them, in the absence of proper disposal facilities remained uncertain. Further, despite more than 10 years after the amendment of the BMW Rules in 2000, the other five[29] MBs had failed to set up/provide a common facility for disposal of BMW in their respective jurisdictions (June 2011). The MSPCB also failed to initiate penal action against the erring MBs in accordance with the provisions of the EP Act.

[29] (i) Tura Municipal Board, (ii) Jowai Municipal Board, (iii) Resubelpara Municipal Board, (iv) Williamnagar Municipal Board and (v) Baghmara Municipal Board

Thus, except for two institutions, BMWs generated by the remaining institutions situated in the three selected districts were not being disposed of as per the prescribed procedure, thereby posing a risk to public health and the environment.

The UAD stated (December 2011) that the non-functioning of incinerator in the common facility of Shillong MB since 2008 as indicated above is not correct. The reply was not acceptable because as per inspection of common facility carried out by the MSPCB in June 2010, the incinerator was not functioning since 2008.

1.1.14.4 Compliance aspects

The following requirements of the BMW Rules were not adhered to by the authorities concerned:

- According to Rule 11 of BMW Rules, every health institution was to maintain records relating to generation, collection, transportation, disposal, *etc.* of BMWs. But no such record was maintained by any of the 11 hospitals in three selected districts.
- According to Rule 10 of BMW Rules, every health institution was to submit to the MSPCB by 31 January every year an annual report regarding the categories and quantities of bio-medical wastes handled during the preceding year. The MSPCB was to compile this information in respect of all the institutions in the State and to submit the same to the CPCB by 31 March each year. During 2006-11, the MSPCB had submitted to the CPCB reports compiled in respect of 129 to 662 health institutions out of 701 institutions in the State. However, it was noticed that during 2006-11, annual reports in respect of only eight to 44 institutions were received by the MSPCB. The reports submitted to the CPCB for the years 2006-07 to 2010-11, thus, were not based on facts.
- To advise the Government and the MSPCB on matters relating to the implementation of BMW Rules, the State Government was to constitute an advisory committee by nominating experts from various Government departments including non-government organisations. However, no such committee was constituted even after 12 years of enforcement of BMW Rules (July 1998).

1.1.15 Hazardous Waste Management

Certain industries generate hazardous wastes that are highly toxic in nature and require adequate control and careful handling. Rule 5(2) of HW Rules stipulate that the hazardous wastes shall be collected, treated, stored and disposed of only in such facilities as may be authorised by the State Pollution Control Board for the purpose. As per Rule 18(1) of the HW Rules, the State Government, operator of a facility or any association of occupiers shall individually or jointly or severally be responsible for identification of sites for establishing such facility.

As of April 2007, the MSPCB identified 43 industrial units of the State as hazardous waste generating industries. According to the MSPCB, maximum waste generation was 7,159.37 MTA (MT per annum). Of this, 696.95 MTA was incinerable, 19.28 MTA was landfillable and remaining 6443.14 MTA was recyclable. But the facility for disposal of these wastes have not been established due to non-identification of the sites required for such facilities by the State Government or the industrial units, reasons for which, though called for from the PHE and Urban Affairs Departments in June 2011, had not been furnished. As a result, generators of these wastes were dumping the hazardous waste at their will without any monitoring from the MSPCB, thereby exposing the general populace to risk of contracting infectious and dangerous diseases.

The MSPCB stated (September-October 2011) that in the absence of disposal sites, landfillable and incinerable wastes were stored inside the factory premises of the concerned units.

The UAD stated (December 2011) that provision for hazardous waste had been made in the permanent landfill site at the New Township area for Shillong MB which would be made operational in 2013-14.

1.1.16 Plastic Waste Management

As per Rule 10 of the Plastic Rules (amended in 2003), no person was to manufacture carry bags or containers, with virgin/re-cycled plastics or both irrespective of the size or weight unless the occupier of the unit obtained registration from the MSPCB prior to the commencement of production.

As of June 2011, there were six plastic manufacturing units in the State, of which only three units were granted registration by the MSPCB. The remaining three units had not even applied for registration. The MSPCB also had not initiated any penal action against the defaulting units as required under clause 15 of EP Act.

Further, as per Rule 3 of the Plastic Rules, the Deputy Commissioner of the concerned district (municipal authorities as per Plastic Rules notified in February 2011) was to enforce the provisions of rules relating to the use, collection, segregation, transportation and disposal of plastics. Information regarding enforcement of these provisions by the DCs/municipal authorities, though called for from Government/DCs/MBs in July 2011, had not been furnished.

1.1.17 Impact of pollution on health profile of the State

Scrutiny of statistical data furnished (July 2011) by the Director of Health Services Meghalaya (DHS) for the years from 2006 to 2010 revealed that 2.27 lakh to 3.54 lakh patients treated in the State during the period suffered from diseases like bronchitis, acute upper respiratory infection, pulmonary tuberculosis, whooping cough, *etc.* caused by air pollution.

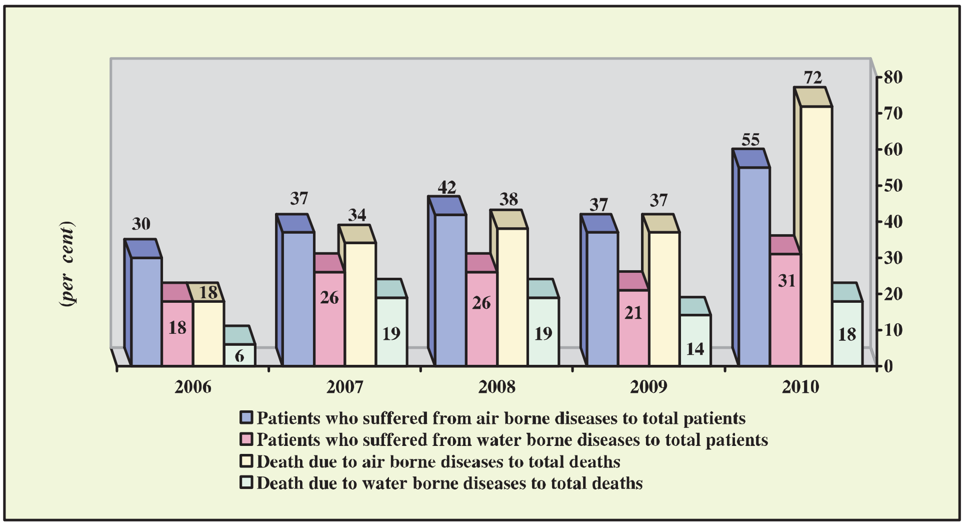
Similarly, the number of patients in the State suffering from water borne diseases like dysentery, cholera, *etc.* during 2006-10 was between 1.42 lakh and 2.03 lakh. Since these diseases are caused by water-borne bacteria, the basic causes of these diseases can be linked to pollution of drinking water by contamination from sewage and surface water polluted with human excreta and other impurities.

The position of patients who suffered from air and water borne diseases, death cases, *etc.* during 2006-10, percentage of patients who suffered from air/water borne diseases to total patients treated in the State during the period and percentage of death cases due to air/water borne diseases to total deaths are given in the table and chart below:

Table 1.13

Sl. No.	Particulars	Year				
		2006	**2007**	**2008**	**2009**	**2010**
1.	Number of patients of all categories treated in the State	10,43,815	6,19,051	5,46,730	8,83,405	6,45,967
2.	Number of patients suffered from -					
	- Air borne diseases	3,09,977	2,26,931	2,28,990	3,24,605	3,54,932
	- Water borne diseases	1,85,263	1,58,092	1,42,481	1,84,924	2,02,588
3.	Number of patients died due to -					
	- Air borne diseases	102	111	77	64	66
	- Water borne diseases	36	62	39	24	17
4.	Number of death cases from all causes reported in the State	581	327	202	173	92

Source: Information furnished by the DHS.



Analysis of the data given in the above table and chart revealed the following position:

- The number of all categories of patients treated in the State significantly fell by 38 *per cent* from 10.44 lakh in 2006 to 6.46 lakh in 2010. In contrast, the number of patients who suffered from air and water borne diseases during 2010 was an all time high during the period 2006-10.
- The number of patients who suffered from air and water borne disease as a percentage of the total number of patients of all categories treated in the State was 47.45 *per cent* in 2006 which had increased to 86.31 *per cent* in 2010.
- Over the five-year period 2006-10, the percentage of patients who suffered from air and water borne diseases increased by 14.50 and 9.35 *per cent* respectively.
- A mitigating factor was the decline in number of death cases due to air and water borne diseases in absolute terms to 66 and 17 in 2010 compared to 102 and 36 in 2006 respectively. However, when compared to the total number of death cases from all causes, the total number of deaths due to air and water borne diseases during 2010 was 90.21 *per cent* as against 23.75 *per cent* during 2006.

From the above statistics it is evident that air and water pollution in the State had increased significantly, which in turn seriously impacted on the health of the population. This situation was indicative of the failure of the various agencies of the State who were charged with the mandate of monitoring, controlling and management of air, water and waste pollution in Meghalaya.

1.1.18 Monitoring and Evaluation

An integral part of environmental study and pollution control is the continuous monitoring of surface water, air and soil to determine if any undesirable changes are occurring in the atmosphere due to presence of pollutants. Such monitoring would enable the MSPCB to plan control strategies in an effective and efficient manner. The Government or the MSPCB did not evolve any system for regular monitoring of air, water, soil or waste management in the absence of which, comprehensive control strategies for environmental protection remained undetermined. Further, inadequate manpower (54 vacant posts) with the MSPCB hampered the monitoring and enforcement of the provisions of various Acts and Rules relating to pollution control and waste management.

The EP Act has widened the scope of activities of the MSPCB making it the primary authority in the State to regulate the various activities causing air, water and waste pollution and to ensure a pollution free environment. For contravention of the various Acts and Rules made there-under, controlling and regulating pollution, appropriate penalties were to be levied by the MSPCB against the violators. As discussed in the foregoing paragraphs, there were violations by different agencies. In spite of being armed with sufficient powers, the MSPCB had not initiated any penal action against the violators, except issue of closure notices to 24 industrial units, direction to five industrial units and show cause notices to five industrial units. The legislative Acts and Rules made thereunder have provided for stiff penalties. The legislative intent, however, was not translated into effective implementation.

1.1.19 Conclusion

Compliance of the laws regulating air and water pollution, MSW and BMW by the MSPCB, MBs and health institutions continued to be poor even after 27 years of constitution of the MSPCB. The present waste disposal arrangements do not follow the prescribed procedure for segregation of solid waste into biodegradable and non-bio-degradable waste which require different operations for treatment of the waste. The basic objective of scientific disposal of BMW for preventing environmental pollution remained largely unachieved owing to various operational deficiencies coupled with lax monitoring on the part of MSPCB. Landfills had not been established and all the MBs were dumping the solid waste in the open with consequent adverse results on human health and the environment. MSPCB, the regulatory authority to enforce implementation of these rules, had so far not penalised the defaulting health care establishments and municipal boards though the laws have provided for stiff penalties against the violators. The Acts and Rules for prevention and control of air and water pollution and waste management, thus, remained largely ineffective.

1.1.20 Recommendations

- **To ensure proper implementation of the air and water quality management programme and the process of disposal and treatment of various kinds of wastes, control, monitoring and co-ordination among various concerned state agencies should be strengthened.**
- **All Government health institutions should streamline their bio-medical waste management and disposal systems so as to act as role models for private health institutions.**
- **State Government should make waste segregation mandatory and the municipalities authorised to levy fines if segregated waste is not made available to them for collection.**
- **Landfill sites and waste processing and disposal facilities should be set up on priority basis to avoid open dumping of wastes.**
- **The MSPCB should take punitive action against persons/organisations contravening the provisions of the Acts and Rules.**

The matter was referred to the PHED in August 2011; reply had not been received (December 2011).

CHAPTER II : AUDIT OF TRANSACTIONS

Fraud/Loss

COMMUNITY AND RURAL DEVELOPMENT DEPARTMENT

2.1 Doubtful purchase of Corrugated Galvanised Iron Sheets

Expenditure of ₹ 56 lakh purported to have been incurred on procurement of corrugated galvanised iron sheets remained doubtful.

Schemes under the Special Rural Works Programme (SRWP) to be taken up in a particular constituency are identified/selected by the Member of the Legislative Assembly (MLA) of that particular constituency and after these are sanctioned by the Deputy Commissioner (DC) of the concerned district. Under the SRWP, Corrugated Galvanised Iron (CGI) sheets are purchased by the Department and distributed through the network of Community and Rural Development (C&RD) Blocks to beneficiaries.

A test-check (January-April 2011) of records of the Block Development Officer (BDO), Mylliem C&RD Block revealed that the DC, East Khasi Hills District accorded sanction for purchase of 2,200 bundles of CGI sheets for distribution to the beneficiaries of 18-Pynthorumkhrah Constituency during 2006-09. The details are given in the table below:

Table 2.1

Year for which sanction accorded	Month/year in which sanction accorded by the DC	Amount sanctioned (₹ in lakh)	Quantity of CGI sheet (bundles) to be purchased
2006-07	October 2007	20	600
2007-08		20	600
2008-09	January 2009	40	1000

Based on the above sanctions, the BDO, Mylliem C&RD Block issued to the Secretary, Pynthorumkhrah Development Committee (PDC)

- two work orders of ₹ 20 lakh each on 08 November 2007 to procure a total of 1,200 CGI sheet bundles and,

- another work order of ₹ 40 lakh on 15 July 2009 to procure 1,000 CGI sheet bundles.

Scrutiny further revealed that the Secretary, PDC

➢ with reference to the two work orders of ₹ 20 lakh each of 08 November 2007 submitted a proforma bill dated 17 November 2007 from a Guwahati-based firm for supply of 1,333 bundles and three pieces of CGI sheets at a cost of ₹ 40 lakh on the basis of which the BDO, Mylliem C&RD Block released ₹ 40 lakh to the Secretary, PDC on 21 November 2007.

- with reference to the work order of ₹ 40 lakh of 15 July 2009 the Secretary, PDC submitted an undated proforma bill from the same Guwahati-based firm for the supply of 1,000 CGI sheet bundles at a cost of ₹ 40 lakh on the basis of which the BDO, Mylliem C&RD Block released ₹ 40 lakh to the Secretary, PDC on 16 July 2009.

In connection with the above transactions, the following comments are offered:

- The Secretary, PDC with respect to the ₹ 40 lakh released to him on 21 November 2007 did not submit to the BDO, Mylliem C&RD Block the list of beneficiaries or their acknowledgement in support of the CGI sheets received by them.
- The Secretary, PDC with respect to the amount of ₹ 40 lakh released on 16 July 2009, submitted to the BDO, Mylliem C&RD Block a list with the signatures of 226 beneficiaries in support of the CGI sheets distributed and another list of 320 beneficiaries against whom only their photographs were pasted against their names. This beneficiary list was not verifiable in the absence of details like the full address of the beneficiary, house number, quantity of CGI sheets distributed to each beneficiary, *etc*.
- On an enquiry by Audit, the Guwahati based firm in May 2011 informed that against the proforma bill (which was a proforma for quotations of this firm) of 17 November 2007, it had not supplied any CGI sheet as it did not receive any order to supply the same. Against its second bill of ₹ 40 lakh for supply of 1,000 CGI sheet bundles, it was paid ₹ 24 lakh on 10 August 2009 for supply of 600 CGI sheet bundles which it accordingly did on 11 August 2009.

Given the above facts and the failure of the Secretary, PDC to submit the beneficiary list in the first instance and the lack of confirmable details in the second, the veracity of purchase of 1,733[1] bundles and three sheets of CGI sheets remained questionable and the embezzlement of at least ₹ 56 lakh[2] paid to the Secretary, PDC could not be ruled out.

The C&RD Department stated (October 2011) that the distribution list of CGI sheets had since been received and that the Department had decided to initiate a thorough enquiry into the matter at the level of the DC, East Khasi Hills District.

[1] 1,333 bundles and 3 CGI sheets not purchased from the firm in November 2007 + 400 bundles (1,000 bundles purportedly ordered *minus* 600 bundles actually supplied by the firm in August 2009)
[2] ₹ 40 lakh released to the Secretary, PDC on 21 November 2007 + ₹ 16 lakh (₹ 40 lakh released to the Secretary, PDC on July 2009 *minus* ₹ 24 lakh actually paid to the firm)

URBAN AFFAIRS DEPARTMENT

2.2 Capricious management of parking lots by Meghalaya Urban Development Authority

Meghalaya Urban Development Authority incurred a loss of ₹ 65 lakh due to irregular allotment and management of parking lots.

The Meghalaya Urban Development Authority (MUDA) administers four parking lots (PL) in the State, all located in Shillong[3]. Parking fees are levied on vehicles using these facilities. These PLs were, after their construction, all initially managed by MUDA and thereafter either these were leased out to the lessees or managed by MUDA at different points of time. The operation/management of the four PLs from the time they were first operationalised up to March 2011, was reviewed by Audit in April 2011.

The following irregularities were noticed in the management of PLs during the period covered under audit.

➢ Four PLs since August 2006 were leased to ten lessees on different occasions. It was observed that only on two occasions did MUDA invite open tenders and in the remaining eight occasions PLs were leased out at various times to lessees who were arbitrarily selected without inviting tenders in violation of Government rules which expressly stipulate that public works be awarded or services obtained only on the basis of open tenders.

➢ These four PLs were leased (during 2006-11) to different private parties for periods of three months, 12 months and 13 months on different occasions. Some of these leases were subsequently extended for periods varying between one month and more than 27 months. On one particular occasion, the lease was extended four times while another lessee was informally allowed to operate a PL for two and-a-half months beyond the lease period.

➢ There was nothing on record to indicate how these lessees were selected on eight occasions when no tenders were invited and the rationale behind the decisions to extend these leases for varying periods of time.

➢ Except for two occasions when open tenders were resorted to, the lease amount was fixed by MUDA on *ad-hoc* basis. Also, there was nothing on record to indicate the basis by which MUDA had arrived at the lease amounts to be paid by the lessees. As a result, the financial interest was compromised as evident from the following cases.

- It was observed that the Assistant Engineer, MUDA made an assessment on 02 February 2010 and assessed the daily collection of parking fees at Khlieh Iewduh PL at ₹ 14,420 per day which works out to ₹ 4.33 lakh per month.

[3] Parking lots at Police Bazar, Khlieh Iewduh, Garikhana (Pahsyntiew PL) and Jhalupara (Mahavir PL) localities in Shillong

Despite having this information, MUDA leased the facility from 06 February 2010 to 31 August 2010 at ₹ 2.20 lakh per month and at ₹ 2.36 lakh per month from 06 September 2010 to 30 June 2011. Computed with reference to the collection of ₹ 14,420 per day as assessed by MUDA in February 2010, the minimum lease for these periods should have been ₹ 72.82 lakh[4] against which MUDA stood to receive ₹ 38.17 lakh[5] from the two lessees.

- From 16 January 2010 to 03 September 2010 when the Pahsyntiew PL, Garikhana was operated by MUDA, the average monthly parking fee collected was ₹ 1.28 lakh per month. However, MUDA decided to lease the facility for three months from 03 September 2010 at ₹ 1 lakh per month.
- Considering that MUDA collected ₹ 0.38 lakh as parking fees from the Mahavir PL, Jhalupara when it operated the facility for 27 days from 19 April 2008 to 16 May 2008, the minimum lease should have been ₹ 0.44 lakh per month. The PL was, however, leased from 17 May 2008 to 16 May 2009 for ₹ 2.50 lakh (₹ 0.21 lakh per month); 17 May 2009 to 16 May 2010 for ₹ 2.75 lakh (₹ 0.23 lakh per month); from 17 May 2010 to 31 August 2010 for ₹ 0.80 lakh (₹ 0.23 lakh per month) and from 04 September 2010 to 03 June 2011 at ₹ 0.23 lakh per month. Computed with reference to MUDA's collection of ₹ 0.44 lakh per month, the minimum parking fees to be collected from the two lessees should have been ₹ 15.66 lakh[6] against ₹ 8.12 lakh[7].to be actually paid by them.

In the above cases, MUDA incurred a loss of ₹ 43.03 lakh[8] because the lease amounts to be paid by the lessees were fixed in *ad-hoc* manner.

➢ Barring two lessees, none of the other lessees furnished bank guarantees as no such condition was there in the lease agreements entered into by MUDA with these lessees. As such MUDA did not adequately safeguard its interests. As a result, MUDA could not recover ₹ 21.97 lakh from the lessees in the following cases, a situation which could have been prevented, had it been made mandatory for all lessees to furnish bank guarantees:

- two lessees did not pay ₹ 10 lakh and ₹ 9 lakh to MUDA as lease for the Police Bazar PL for the periods 16 November 2009 to 31 January 2010 and 22 December 2010 to 07 February 2011 respectively;
- one lessee did not pay ₹ 0.29 lakh to MUDA as lease for Khlieh Iewduh PL for the period 01 to 04 September 2010;

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[4] 207 days (06 February 2010 to 31 August 2010) ***plus*** 298 days (06 September 2010 to 30 June 2011 x ₹ 14,420 per day = ₹ 72.82 lakh

[5] ₹ 15.05 lakh from 06 February 2010 to 31 August 2010 (6 months and 26 days) ***plus*** ₹ 23.12 lakh from 06 September 2010 to 30 June 2011 (9 months and 25 days)

[6] 17 May 2008 to 03 June 2011 = 1113 days. (₹ 0.38 lakh ÷ 27 days) X 1113 days = ₹ 15.66 lakh

[7] ₹ 6.05 lakh (₹ 2.50 lakh + ₹ 2.75 lakh + ₹ 0.80 lakh) **plus** ₹ 2.07 lakh (₹ 0.23 lakh per month x 9 months)

[8] **₹ 34.65 lakh** (₹ 72.82 lakh – ₹ 38.17 lakh) ***plus*** **₹ 0.84 lakh** {₹ 0.28 lakh (₹ 1.28 lakh - ₹ 1 lakh) x 3 months} ***plus*** **₹ 7.54 lakh** (₹ 15.66 lakh – ₹ 8.12 lakh)

- with respect to the Mahavir PL, a lessee deposited ₹ 2.50 lakh against the agreed amount of ₹ 3.75 lakh and failed to pay ₹ 0.63 lakh for the period 15 January 2008 to 18 April 2008 and, another lessee failed to deposit ₹ 0.80 lakh with MUDA being the lease for the period 17 May 2010 to 31 August 2010.

➢ Audit also noticed deficiencies in the system of stock keeping, issue of parking fee books and deposit of parking fees during the periods when the PLs were operated by MUDA as illustrated below:

- MUDA did not maintain any stock register of parking fee books or details of their issue to MUDA personnel assigned to collect parking fees. Parking fees collected by the staff was being deposited with the Accounts branch of MUDA on the next day. It was observed that no crosschecks were carried out with reference to the counterfoils of the fee books to validate the amounts deposited. MUDA also failed to furnish the counterfoils to Audit in the absence of which it was also not possible for Audit to carry out this exercise. The absence of these rudimentary controls left scope for pilferage of parking fees.
- A study of the ticketing system at Police Bazar PL revealed that the vehicle's registration number and the time of entry are recorded on three parking ticket counterfoils by hand at the entry point to the PL. While the first counterfoil is retained at the entry point, the other two are handed over to the vehicle driver. At the exit point (the exit and entry points to the parking lot are at different locations), the driver is required to present the two counterfoils and make the necessary payment. One counterfoil is retained at the exit point while the other is given to the driver. Since the parking fees fixed by MUDA are for the first one hour and every subsequent hour thereafter[9], the parking fee levied and collected at the exit point is dependent on the duration the vehicle has been in the PL. It was noticed that neither the time of exit of the vehicle nor the amount of money collected from each vehicle owner was ever recorded in the counterfoils retained by MUDA at the exit point. This practice also left ample scope for pilferage of revenue.

MUDA's manifestly capricious management of the four PLs was due to its failure to formulate a clearly defined policy with regard to the administration of these facilities.

Accepting the audit contention, Urban Affairs Department stated (November 2011) that it was in the process of framing guidelines for management of PLs and added that the lease amount to be paid by lessees was fixed after taking into account ground realities. Further, it was stated that necessary steps would be initiated to safeguard the financial interest.

[9] As of April 2011, the parking fees fixed by MUDA for the Police Bazar parking lot was ₹ 10 for the first hour and ₹ 5 for every subsequent hour in the case of cars and ₹ 5 and ₹ 2 respectively in the case of two wheelers.

Extra/Wasteful Expenditure

SOCIAL WELFARE DEPARTMENT

2.3 Extra expenditure on procurement of milk powder

Extra avoidable expenditure of ₹ 88.73 lakh due to injudicious decision of the Purchase Board and procurements made without inviting tenders.

The objective of the Supplementary Nutrition Programme (SNP) is to supplement the nutritional intake of children up to the age of six years and pregnant women and nursing mothers belonging to landless agricultural labourers, marginal farmers, SC/ST and other poor sections of the community. Four items, *viz*., milk powder, malted milk food, biscuits and ready-to-eat noodles comprise the 'non-conventional food items' component of the SNP.

Procurements made without inviting tenders was a serious violation of the Meghalaya Preferential Stores[10] Purchase (MPSP) Rules, 1990 which stipulates invitation of open tenders by the Government departments while making purchases of any item.

Mention was made in paragraph 2.8 of the Report of the Comptroller and Auditor General of India for the year ended 31 March 2010 in respect of the Government of Meghalaya (GOM) regarding excess expenditure on procurement of ready-to-eat noodles under the SNP without assessing competitive rates. Scrutiny (August 2011) of records of the Director of Social Welfare (DSW), GOM further revealed that the Directorate had been procuring the 'non-conventional items' under SNP without inviting tenders. Ready-to eat noodles were being purchased at ₹ 145.33 per kg from M/s AA Nutritions, Ri-Bhoi District since September 2009, milk powder and malted milk food were being purchased at ₹ 185 per kg and ₹ 254 per kg respectively from Continental Milkose (India) Ltd. (CML), New Delhi since October 2009 and biscuits at ₹ 125 per kg from Kishlay Foods Pvt. Ltd., Guwahati since April 2010.

On 03 November 2010, the DSW invited tenders for supply of 'non-conventional food items' under SNP. The last date for submission of tenders was 30 November 2010. However, the tenders received were not opened since Government directed the Department on 26 November 2010 to keep the tender process in abeyance in view of allegations and criticism in newspapers against the conditions of the Tender Notice. By the same order, the Department was also directed to stop procurement of two 'non-conventional food items' *viz.* ready-to-eat noodles and biscuits. Subsequent to this development, the DSW thereafter, under the SNP, continued to procure milk powder and malted milk food from CML at ₹ 185 and ₹ 254 per kg respectively.

In December 2010, CML requested the DSW to increase the rate of milk powder from ₹ 185 per kg to ₹ 231 per kg on which however, the DSW did not take any action. On

[10] Stores include all manufactured, assembled and processed items.

07 April 2011 the DSW placed an order with CML to supply 2.07 lakh kg of milk powder at the rate of ₹ 185 per kg for the quarter commencing 01 April 2011. Though CML again on 13 April 2011 requested the DSW to enhance the rate and expressed its inability to supply at the old price, it nevertheless supplied 1.93 lakh kg of milk powder in May 2011 for which it presented the DSW with 44 bills between 16 May and 25 May 2011. In every bill, CML clearly indicated that the rate was ₹ 185 per kg of milk powder.

The balance 0.14 lakh kg of milk powder was supplied in June 2011. For this quantity, CML through four bills presented in June 2011 charged DSW at the rate of ₹ 231 per kg.

Meanwhile the DSW in May 2011 collected the rates of milk powder of four other manufacturers and on 23 May 2011 requested the Deputy Secretary of the Department to place CML's request for enhancement of the price of milk powder before the Department's Purchase Board (PB) for consideration. The PB in its meeting held on 25 May 2011 after comparing the rates of the other manufacturers agreed to enhance the price of milk powder supplied by CML from ₹ 185 to ₹ 231 per kg with retrospective effect from 01 April 2011. This decision was communicated to the Director, DSW on 06 June 2011. Accordingly, the latter made payments in July 2011 totaling ₹ 4.77 crore to CML at the enhanced rate of ₹ 231 per kg for the 2.07 lakh kg of milk powder supplied as against the amount of ₹ 3.89[11] crore actually billed by the firm.

Audit observed that the PB's decision to increase the rate retrospectively was injudicious since CML, notwithstanding its request for a price hike, had between 16 and 25 May 2011, willingly supplied 1.59 lakh kg of milk powder to the DSW and also billed for the same at the rate of ₹ 185 per kg. Hence, there was no compelling reason or obligation for the PB subsequently on 25 May 2011 to enhance the rate of milk powder retrospectively from 01 April 2011.

Thus, the imprudent decision of the PB resulted in an undue financial benefit of ₹ 88.73 lakh[12] to CML and correspondingly, entailed an extra expenditure of the same amount to the DSW.

Further, beneficiaries under SNP in the State since November 2010 were being deprived of the full benefits of the SNP as procurement of ready-to-eat noodles and biscuits were stopped. Moreover, the fact that the DSW was sourcing milk powder and malted milk food from CML since October 2009 without inviting tenders was highly irregular. Despite this, the DSW had not taken any step to re-invite tenders for supply of 'non-conventional food items' under the SNP.

The Social Welfare Department stated (November 2011) that the milk powder was procured directly from the manufacturer with the approval of the State Government as well as on the recommendation of the District Level Committees who were

[11] ₹ 3.57 crore (1.93 lakh kg @ ₹ 185 per kg) + ₹ 31.84 lakh (0.14 lakh kg @ ₹ 231 per kg)
[12] ₹ 4.77 crore (amount paid by DSW) - ₹ 3.89 crore (amount billed by CML)

empowered to approve the rate of food items and the rate was enhanced from the first quarter of 2011-12 considering the escalation of prices. The reply is not convincing because the rate of ₹ 185 was fixed without assessing the competitive rate and this rate was also enhanced retrospectively from 01 April 2011 by about 25 *per cent* within 20 months and without any compelling reason or obligation.

URBAN AFFAIRS DEPARTMENT

2.4 Wasteful expenditure

A bus terminal constructed at a cost of ₹ 31.12 lakh was not being used even after three years of its completion.

To ensure free flow of vehicular traffic along National Highway 44, the Urban Affairs Department (UAD), in March 2002 accorded administrative approval and technical sanction for construction of a bus terminal at Mawblei, Madanryting, Shillong at an estimated cost of ₹ 31.12 lakh (mini bus and city bus terminal: ₹ 29.80 lakh; public utility and dust bin: ₹ 1.32 lakh). The construction of the terminal was awarded in September 2002 to two contractors at their tendered value of ₹ 14.46 lakh each with the stipulation that the work be completed by January 2003.

The construction of the terminal was delayed and completed only in February 2008 at a cost of ₹ 31.12 lakh[13]. The delay occurred as rock was encountered during excavation of the sub-soil which necessitated revision of the estimate and modification of original drawings and design and, one of the original contractors discontinuing the job midway after executing work of the value of ₹ 18.56 lakh. The revised administrative approval and technical sanction was accorded in March 2007 and April 2007 respectively and the remaining work completed through three contractors at a cost of ₹ 12.47 lakh. According to the UAD, the asset was handed over to the Meghalaya Urban Development Authority (MUDA) in January 2009 for management and maintenance.

To ascertain the actual status of the bus terminal, a physical inspection of the facility was jointly conducted on 11 May 2011 by Audit and the EE, UAD during which it was noticed that -

- the terminal had become a dumping ground for construction material like stone chips and sand of unknown persons;
- two pillars at the entrance of the terminal were totally broken and lying on the ground and some of the railings at the front were also found broken; and,
- the entrance to the toilet had become a dumping place for garbage.

[13] includes an expenditure of ₹ 0.09 lakh on tender notice

Unutilised bus terminal

Broken railing on the front side

Thus, failure to operationalise the terminal even more than three years after its completion rendered the expenditure of ₹ 31.12 lakh incurred on it wasteful besides also raising the question about the requirement this facility at the first place.

Urban Affairs Department stated (July 2011) that though the dumping of construction material and garbage indicated lack of up-keeping of the complex by MUDA, the asset created was still in tact and would be used as a bus terminus. The reply was indicative of the fact that the utilisation of the asset still remained uncertain.

Unfruitful/Unproductive Expenditure

BORDER AREAS DEVELOPMENT DEPARTMENT

2.5 Unfruitful expenditure on establishment of Piggery Farm

The Department incurred unfruitful expenditure of ₹ 10 lakh due to failure to operationalise the piggery farm at Nongsning village.

For "Piggery scheme in respect of Self Help Group (SHG), Nongsning", the District Animal Husbandry and Veterinary Officer (DAH&VO), Jaintia Hills District approved an estimate for ₹ 15 lakh, which included construction of shed (₹ 10.02

lakh), cost of 36 sows and eight boars (₹ 0.48 lakh), cost of concentrate feed for 44 parent stock (₹ 4 lakh) and transportation, equipment, *etc.* (₹ 0.50 lakh). The State Level Screening Committee, however, approved the scheme (August 2006) at a cost of ₹ 13.20 lakh. Accordingly, the Director, Border Areas Development (BAD) Department issued a work order in March 2007 to the President of the SHG, Nongsning village for construction of piggery shed at an estimated cost of ₹ 13.20 lakh with a stipulation to complete the work within six months. The Director, BAD released ₹ 10 lakh to the President, SHG between March 2007 and November 2009.

Scrutiny (January 2011) of records of the Director, BAD revealed that the balance amount of ₹ 3.20 lakh for the project was lying unspent with the Director, BAD and there was no record of completion of the work or the farm being made operational. To ascertain the actual status, a joint physical verification was conducted by Audit and the Executive Engineer, BAD in the presence of the President, SHG on 18 January 2011 and it was observed that:

- A RCC shed with CGI sheet roofing with provision for seven pig sties had been constructed;
- Another RCC shed (5.3 metre x 3.6 metre) with CGI sheet roofing was also constructed adjacent to the pig shed. From debris lying around, it also appeared that another similar type of structure had also been built but subsequently demolished; and,
- The farm did not have any pigs nor was there any evidence to suggest that the farm was ever operationalised.

Piggery Shed, Nongsning

On the above being pointed out in February 2011, the BAD Department stated (May 2011) that the farm could not be operationalised due to objections raised by the local village committee and the SHG had instead decided (March 2011) to utilise the infrastructure for setting up a restaurant. The reply was untenable and an afterthought because the premises, as could be seen from the photograph, cannot be used as a restaurant and furthermore, the village committee's objection letter was dated 07 February 2011, i.e., after the date of the joint physical verification. Further, during the joint physical verification, the President, SHG stated that after completion of the civil works, he had approached BAD several times to release the balance funds for purchasing pigs but was told that the SHG should purchase the same from its own resources. Being short of funds, the SHG then gave up the idea of the pig farm.

Thus, due to non-release of funds required for purchase of pigs despite provisions in the estimate approved by the DAH&VO and lack of monitoring the construction work of the farm, the piggery farm could not be made operational even after three years of the stipulated date (September 2007), thereby rendering the expenditure of ₹ 10 lakh unfruitful.

The Secretary, BAD Department stated (November 2011) that as the project was located adjacent to the national highway and the area had developed into a commercial hub, the beneficiaries had proposed to convert the facility to a mini restaurant and that Government had approved the proposal with the condition that the mini restaurant was to be completed by 31 March 2012.

HEALTH AND FAMILY WELFARE DEPARTMENT

2.6 Unproductive expenditure on construction of health centres

Five Primary Health Centres and four Community Health Centres constructed at a cost of ₹ 12.84 crore were yet to be put to use thus rendering the entire expenditure unproductive.

The Executive Engineer, Health Engineering Wing (EE, HEW) under the Director of Health Services, Medical Institutions (DHS, MI) GOM is responsible for the construction of all residential and non-residential buildings of the Health & Family Welfare Department (H&FWD).

An examination of the records of the EE, HEW and DHS, MI in April 2011 revealed that five Primary Health Centres (PHCs) and four Community Health Centres (CHCs) whose construction was sanctioned by the Government between March 2001 and January 2009 at a total cost of ₹ 12.07 crore, were completed between September 2006 and August 2010 at a cost of ₹ 12.84 crore. However, as of April 2011 all the nine PHCs/CHCs were still not operational for reasons shown below:

Table 2.2

(₹ in lakh)

Sl. No.	Location of CHC/PHC	Month/year of Sanction	Sanc-tioned amount	Month/year of completion	Total cost	Reasons for non-utilisation
East Khasi Hills District						
1.	Khatarshnong PHC	March 2002	66.55	September 2009	88.43	Lack of electricity and water supply.
2.	Mawsiatkhnam PHC	March 2003	74.12	February 2008	82.88	
3.	Mawkhliaw PHC	March 2002	63.49	September 2009	76.87	
4.	Weilyngkut PHC	March 2007	124.00	October 2009	124.00	
Jaintia Hills District						
5.	Nongbah CHC	March 2001	138.35	September 2006	140.00	Lack of electricity.
6.	Namdong CHC	December 2003	191.35	November 2009	149.76	Lack of electricity and water supply.
West Khasi Hills District						
7.	Laitdom PHC	March 2007	121.33	September 2009	121.30	Lack of electricity and water supply.
East Garo Hills District						
8.	Dainadubi CHC	December 2003 (Original)	184.72	June 2009	260.10	Lack of electricity.
		January 2009 (Revised)	245.40			
9.	Mendipathar CHC	November 2003	182.60	August 2010	240.45	Lack of electricity and water supply.
Total			**1207.19**		**1283.79**	

Source: Information furnished to Audit by DHS, MI and EE, HEW

Further scrutiny revealed that:

- Though the District Medical & Health Officers (DM&HO) of Jaintia Hills and East Garo Hills had paid the Meghalaya State Electricity Board[14] (MeSEB) for the electricity connections for Nongbah and Dainadubi CHCs in June 2008 and June 2009 respectively, the MeSEB was yet to provide the service connections nor had the two DM&HOs ever pursued the matter with MeSEB;
- In respect of the remaining five PHCs and two CHCs, the concerned DM&HOs had submitted the required test reports to the MeSEB for preparation of estimate/bill, but the latter was yet to act on the same and nor had the DM&HOs followed up this matter with the MeSEB; and,
- Barring Nongbah and Dainadubi CHCs, none of the remaining five PHCs and two CHCs had a water supply connection – Audit did not come across any evidence to suggest that the concerned DM&HOs, the DHS, MI or the H&FWD had taken up this issue with the concerned authorities to address the problem.

[14] The MeSEB was corporatised as Meghalaya Energy Corporation Limited on 01 April 2010.

It was additionally observed that:

- the H&FWD had sanctioned staff for Mawsiatkhnam and Mawkliaw PHCs in May 2010;
- proposals for sanction of staff for Khadarshnong, Weilyngkut and Laitdom PHCs and Nongbah and Namdong CHCs were submitted by DHS, MI to the H&FWD between April 2009 and May 2011[15] which the latter was yet to approve; and,
- the DHS, MI was yet to submit proposals to the H&FWD for sanction of staff for Dainadubi and Mendipathar CHCs though these facilities were completed in June 2009 and August 2010 respectively.

Thus, the inaction of the DM&HOs, DHS, MI and the H&FWD to make the PHCs/CHCs functional resulted in the expenditure of ₹ 12.84 crore incurred on the construction of five PHCs and four CHCs remaining unproductive, besides depriving the intended beneficiaries of proper health care facilities.

The H&FWD stated (November 2011) that necessary steps would be taken to make the PHCs/CHCs functional at the earliest.

PUBLIC HEALTH ENGINEERING DEPARTMENT

2.7 Unproductive expenditure on a water supply scheme

Due to non-completion of the construction of a Treatment Plant, an expenditure of ₹ 2.76 crore remained unproductive besides depriving 6,001 people in eight villages the benefit of safe drinking water.

In March 2004, the Government accorded administrative approval for taking up the "Umden Combined Water Supply Scheme" at an estimated cost of ₹ 3.13 crore. Under the scheme, 6,001 people in eight villages were to be provided safe drinking water on completion of the project in three years. The various components of the scheme *inter alia* included construction of Headwork and Gravity Main; laying of Clear Water Main, Distribution Main, Zonal and Sub-zonal reservoirs; laying of Distribution system; construction of Treatment Plant and Clear Water Reservoir *etc*.

Scrutiny (September 2011) of records of the Executive Engineer (EE), Rural Water Supply Division, Nongpoh revealed that all the above components had been taken up and completed at a cost of ₹ 2.76 crore except the Treatment Plant, as per details below:

[15] PHCs: Khadarshnong in June 2010, Weilyngkut in April 2009, and Laitdom in April 2009
CHCs: Nangbah in May 2011 and Namdong in May 2011

Table 2.3

Component	Completed in	Expenditure incurred (₹ in lakh)
Construction of Headwork and Gravity Main	September 2006	112.54
Laying of Clear Water Main, Distribution Main, Zonal and Sub-zonal reservoirs	December 2006 to December 2009	40.69
Laying of Distribution system	March 2007 to November 2010	31.41
Clear Water Reservoir	March 2008	15.32
Treatment Plant	Completed 80 *per cent*	34.64
Other miscellaneous items of work	-	41.18
Total		**275.78**

Source: Information furnished by the EE.

It was further noticed that the work of construction of Treatment Plant and Clear Water Reservoir was awarded to a contractor in October 2005 at his tendered value of ₹ 40.09 lakh. The work was to be completed within 24 months i.e., by October 2007. The contractor however, stopped work in January 2008 after completing the construction of the Clear Water Reservoir only. The value of work done by the contractor was ₹ 25.52 lakh against which he was paid ₹ 25.45 lakh.

As per the agreement executed with the contractor, in the event of delay in completion of the work by the contractor, the EE had the power to rescind the contract and get the balance work done departmentally or through another contractor at the cost of original contractor. However, other than issuing 12 reminders between January 2008 and May 2011 to the contractor, no action was taken by the EE to rescind the contract and to get the balance work done departmentally or through another contractor. As a result, the work stipulated for completion by October 2007, remained incomplete even after lapse of four years.

Thus, due to failure of the contractor to complete construction of the Treatment Plant and of the EE to enforce the terms of the agreement executed with the contractor, the scheme remained unfinished even after more than four years from its scheduled completion. This not only rendered the expenditure of ₹ 2.76 crore so far spent on the scheme unproductive but also denied 6,001 people in eight villages the benefit of safe drinking water. In February 2011, the EE had noted that *"due to non completion of the Treatment Plant the public are getting impatient as they want commissioning of the scheme at the earliest"*.

The Public Health Engineering Department stated (November 2011) that except mechanical parts of the treatment plant, all the components of the scheme were completed and the villagers of eight villages were provided with water since 2008-09 after treating the same through clariflocculator and filter unit as well as after chlorine, lime and alum dosing. The reply was not acceptable because –

- had there been proper supply of safe drinking water, there would not have been any scope for the public getting impatient as noted by the EE;

- as per information furnished to the Additional CE by the EE in July 2008, the works for stilling chamber flash mixer and flocculator were not even started till July

2008 and the clarifier and chemical and filter house were partially completed. Further, as per information furnished to Audit by the EE in September 2011, laying of distribution system in three out of eight villages were completed in March and September 2007 and in the remaining five villages this system was completed between March 2010 and November 2010. In absence of these facilities, the claim of the Department about supply of treated drinking water to eight villages since 2008-09 was questionable.

Undue favour

URBAN AFFAIRS DEPARTMENT

2.8 Unauthorised allotment of land to a Society

Unauthorised allotment of land to the Civil Service Officers Housing Co-operative Society as well as incorrect fixation of premium at a lower rate resulted in undue financial benefit of ₹ 78.42 lakh to the Society besides allotment of land in excess of the prescribed limit.

For construction of houses for its members, the Civil Services Officers Housing Co-operative Society Ltd. (Society)[16] in January 2006 applied to the Revenue Department (RD) for allotment of 45.01 acre plot of Government acquired land in the New Shillong Township (NST)[17]. The Urban Affairs Department (UAD), which was the Nodal Agency for the NST project, in August 2008, conveyed to the Society, Government's approval to allot the 45.01 acre plot on 99 years lease on payment of a one-time premium of ₹ 19.61 lakh and annual land revenue at ₹ 494 per hectare as fixed by the Deputy Commissioner, East Khasi Hills District (DC, EKHD). The Society accordingly deposited the premium in October 2008, signed the lease deed in February 2009 and took possession of the plot in May 2009.

With respect to the above allotment, Audit makes the following observations:

➢ ***Decision of the Cabinet was misrepresented/Allotment of Government land only by a Cabinet sub-committee***

The Minister, UAD in May 2008 approved the allotment of land to the Society based on the views of senior functionaries of the two main departments involved in the process, *viz*, the RD and the UAD and the Chief Secretary (CS), to the effect that allotment of land to the Society would be in line with the Cabinet's decision dated 09 August 2007. This was a patent misrepresentation of facts as the said Cabinet decision could not in any way be construed as approving or authorising allotment of land to the Society as it read: *"The Cabinet directed the Revenue Department to examine feasibility of allotment of land to professionals, bureaucrats etc. who could contribute*

[16] Society comprises of serving/retired officers of the Government of Meghalaya
[17] New Shillong Township is in Mawdiangdiang village situated 13 kilometers North-East of Shillong

to the development of the State". Rather, the RD was required to study the viability of allotting land to professionals/bureaucrats and thereafter, submit its considered view on this issue to the Cabinet. This was, however, not done.

Further, RD's Office Memorandum No. RDS/79/86/35(a) dated 02 June 1989 stipulates that Government land in the State can only be allotted by a decision of the Cabinet sub-committee. However, this was never brought out by the RD or the UAD when processing the Society's application. In December 2010, the UAD contended that "*land was allotted to the Society in consultation with the Revenue Department and approval of the Cabinet is not required*". The reply was unacceptable in view of the stated position.

- ***Incorrect calculation of one-time premium by the DC, EKHD***

It was observed that DC, EKHD in June 2008 had assessed the market value of the 45.01 acre plot at ₹ 1.96 crore and fixed the one-time premium to be paid by the Society at 10 *per cent* of the market value, i.e. ₹ 19.61 lakh in accordance with *"para (b) of Revenue Department's letter No. RDS.37/88/144 dated 22 May 1992".* Scrutiny of this letter, however, revealed that this rate was only applicable in respect of Government land allotted for *'socio-cultural and agricultural purpose'*. In respect of the plot allotted to the Society, the correct rate to be applied was as per para (c) of the letter *ibid* which prescribed the premium payable for un-encroached Government land allotted for *'residential purpose'* at 50 *per cent* of the market value of the land. Computed at this rate, ₹ 98.03 lakh should have been paid by the Society instead of ₹ 19.61 lakh. This resulted in undue financial benefit of ₹ 78.42 lakh to the Society.

- ***Land allotted in excess of prescribed limit***

While the request of the Society for allotment of land was under consideration, the Commissioner and Secretary, UAD in December 2006 informed the Society of the CS's decision that a plot for each Society member should not exceed 300 sq mtrs i.e., 3,229 sq ft[18]. Since the Society's membership was limited to 50 members as per its bye-laws[19], computed with reference to this number it should hence have been allotted 1,61,450 sq ft.[20] of land instead of 45.01 acre i.e., 19,60,636 sq ft[21]. Even allowing 25 *per cent* of the land, i.e, 4,90,159 sq ft, for common facilities like internal roads, drainage, *etc*., the area of each plot of the 50 Society members thus worked out to 29,409.54 sq ft[22], i.e. 811 *per cent* more than what the UAD had stipulated for each member. The UAD in December 2010 stated that the CS had in March 2010 reviewed the decision taken earlier and decided that members would be given plots with an upper limit of 10,000 sq ft. However, no supporting document to this effect was furnished even though called for in May 2011.

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[18] One sq mtr = 10.76 sq ft

[19] bye-laws filed with the Registrar of Co-operative Societies, EKHD

[20] 3229 sq ft X 50 members = 1,61,450 sq ft.

[21] 45.01 acre @ one acre = 43,560 sq ft.

[22] (19,60,636 sq ft. *minus* 4,90,159 sq .ft) ÷50 = 29,409.54 sq ft.

The Principal Secretary, UAD in November 2011 further stated that (a) "*action points arising out of Cabinet decisions need not be placed again to the Cabinet unless specifically directed by the Cabinet*" and " *the competent authority to allot the land in NST was the Minister, UAD*"; (b) the RD was the competent authority to fix the premium and the lease rent and since the allotment of land to the Society "*was for social and residential purpose as a welfare measure*" the RD had correctly fixed the premium and lease rent in this case; and (c) "*as informed by the Society*" to the UAD, only 25 *per cent* of the land allotted to the Society was available for residential purposes as the remaining 75 *per cent* would be used for facilities like sports ground, shopping complex, roads, water tanks, wasteland, *etc.*

The reply at (a) above was not acceptable since the Cabinet's decision was a direction to the RD to examine the "*feasibility of allotment of land to professionals, bureaucrats, etc.*" Further, the Minister, UAD was not the competent authority to allot land in NST in view of the RD's Memorandum RDS/79/86/35(a) dated 02 June 1989 which stipulated that Government land can only be allotted by a Cabinet sub-committee. The reply at (b) was also unacceptable as the RD should have strictly fixed the premium and lease rent in respect of the land allotted to the Society as per the rates explicitly prescribed under its own letter No. RDS.37/88/144 dated 22 May 1992. With respect to the reply at (c), the UAD's confidence in the veracity of the information furnished by the Society that only 25 *per cent* of the land was available for residential purposes was premature and unproven since it was not supported by any documentary evidence and the Society was not required to furnish its development/allotment plans for the land to the UAD.

Regularity Issues and Others

HOME (POLICE) DEPARTMENT

2.9 Non-realisation of dues for deployment of police personnel

Expenditure of ₹ 2.68 crore incurred on payment of salaries of police personnel deployed with various organisations for five months to over 15 years remained unrealised.

The Department provides police personnel to various organisations[23] for security duties on the condition that their salaries would be reimbursed by the borrowing organisations on presentation of bills by the Office of the Director General of Police (DGP), Meghalaya.

Scrutiny (January 2010 and May 2011) of records of the DGP and further information received (December 2011) from the Home (Police) Department revealed that six organisations were to reimburse to the DGP ₹ 3.69 crore being the salaries of police

[23] Central Government offices, public sector units and private companies.

personnel provided to them during April 1995 to June 2011. Four organisations made part payments totalling ₹ 1.01 crore while the balance ₹ 2.68 crore remained unrealised till date (November 2011). The details are given below:

Table 2.4

(₹ in lakh)

Sl. No.	Name of organisation	Period of claims	Amount of bill	Amount paid	Amount unrealised
1.	United Bank of India, Jowai	April 1995- March 1996	4.33	2.89	1.44
		April 1996 to March 1997	4.82	0	4.82
		April 1997 to March 1998	4.88	3.25	1.63
		April 2003 - March 2004	7.82	0	7.82
		April 2004 to March 2011	54.60	0	54.60
2.	Airport Authority of India, Umroi	March 1997 - February 2008	103.67	0	103.67
		March 2008 to March 2011	40.82	0	40.82
3.	Superintendent of Police (CBI/ACB), Shillong	July 2009 to March 2011	18.20	11.08	7.12
4.	Doordarshan Kendra, Laitkor, Shillong	September 2009 to June 2011	31.03	28.45	2.58
5.	M/s Larfage Umiam Mining Pvt. Ltd., Shella	October 2009 to March 2011	35.88	0	35.88
6.	All India Radio, Shillong	October 2009 to March 2011	62.79	55.57	7.22
Total			**368.84**	**101.24**	**267.60**

Source: Information furnished by the DGP and Home (Police) Department

Audit observed that unrealised dues from various organisations had accumulated primarily on account of the fact that the DGP did not have any institutionalised mechanism to raise bills on a regular basis (monthly, quarterly or six-monthly as the case may be) and failure to vigorously pursue the arrears in payment with the organisations concerned on a sustained basis. These systemic weaknesses had led to the non-realisation, for periods ranging from five months to over 15 years, of a total of ₹ 2.68 crore spent by the Department on salaries of police personnel provided to the above organisations.

The Home (Police) Department stated (December 2011) that reminders had been issued to the defaulting organisations and a circular had been issued in November 2011 to all District Superintendents of Police in order to streamline the procedure for collection of revenue on regular basis.

General

2.10 Follow up action on Audit Reports

With a view to ensure accountability of the executive about the issues contained in the various Audit Reports, the Public Accounts Committee (PAC) of Meghalaya Legislative Assembly issued instructions (July 1993) for submission of *suo motu* explanatory notes by the concerned administrative departments within one month of presentation of the Audit Reports to the State Legislature. Review of outstanding explanatory notes on paragraphs included in the Report of the Comptroller and Auditor General of India for the year ended 31 March 2009[24] revealed that the concerned administrative departments were not complying with these instructions. As of March 2011, *suo motu* explanatory notes on seven[25] out of 24 paragraphs of this Audit Report were awaited from various departments.

The administrative departments were required to take suitable action on the recommendations made in the Report of the PAC presented to the State Legislature. Following the circulation of the Reports of the PAC, the departments were to prepare action taken notes (ATNs) indicating action taken or proposed to be taken on the recommendations of the PAC and submit the same to the Assembly Secretariat. The PAC specified the time frame for submission of such ATNs as six weeks up to 32nd Report of the PAC and six months in 33rd Report. Review of 14 Reports of the PAC involving 13 departments (containing recommendations on 54 paragraphs of Audit Reports) presented to the Legislature between April 1995 and December 1997 (10 reports), in June 2000 (one report), April 2005 (one report), April 2007 (one report) and March 2010 (one report) revealed that none of these departments had sent the ATN to the Assembly Secretariat as of March 2011. Thus, the fate of the recommendations contained in the said reports of the PAC and whether they were being acted upon by the administrative departments could not be ascertained in audit.

2.11 Lack of response to Audit

The Meghalaya Financial Rules, 1981 provide for prompt response by the executive to the Inspection Reports (IRs) issued by the Accountant General (Audit) of the State (AG) to ensure rectificatory action in compliance with the prescribed rules and procedures and accountability for the deficiencies and lapses noticed during inspection. The Heads of offices and next higher authorities are required to comply with the observations contained in the IRs and rectify the defects and omissions promptly and report their compliance to the AG. Serious irregularities are also brought to the notice of the Heads of the Department by the AG through a half-yearly report in respect of pending IRs to facilitate monitoring of the Audit observations and for taking appropriate corrective action.

Four Audit Committee meetings were held during 2010-11 wherein 330 audit paragraphs relating to transactions of civil and works departments were discussed and 297 paragraphs settled.

[24] Audit Report for the year 2009-10 was placed before the State Legislature on 16 March 2011

[25] Para 1.2 (Community & Rural Development, Health & Family Welfare, Information Technology, Planning and Public Works Departments), Para 1.3 (Education, Planning, Power and Public Works Department), Para 2.5 (Community & Rural Development Department), Paras 2.11 & 2.14 (Public Works Department), Paras 2.12 & 2.17 (Election Department)

At the end of March 2011, 827 IRs involving 3,272 paragraphs pertaining to the period 1989-90 to 2010-11 were outstanding.

Lack of response to Audit indicated inaction on the part of the departments concerned which in turn was responsible for the recurrence of serious irregularities and loss to Government even after being pointed out in audit.

As such, it is recommended that the Government should look into this matter and revamp the system to ensure proper and quick response of the departments to audit observations in a time bound manner. This would reduce the occurrence of financial irregularities and lapses and help in streamlining administrative and financial systems thereby leading to better governance practices.

CHAPTER III – CHIEF CONTROLLING OFFICER BASED AUDIT

PUBLIC WORKS (ROADS AND BRIDGES) DEPARTMENT

3.1 Chief Controlling Officer based Audit of Public Works Department (Roads and Bridges Wing)

Road network is the only means of communication in Meghalaya and is, therefore, the catalyst of all economic and social activities. The Roads and Bridges Wing of the Public Works Department is responsible for planning and development of the State's road network as well as maintenance and upgradation of existing road network and bridges. The Roads and Bridges Wing has added 6,769.56 kilometre length of road since creation of the State in January 1972. Several deficiencies were, however, noticed in the functioning of the Wing, such as, non-formulation of State Road Policy, absence of master plan and perspective plan, unrestrained sanction of projects without availability of funds leading to huge pending liabilities and pre-closure and de-sanctioning of projects, lax quality control, etc. Major findings are highlighted below.

Highlights

169 projects were either pre-closed (Roads: 91; Bridges: 5) or de-sanctioned (Roads: 65; Bridges: 8) rendering an expenditure ₹ 19.71 crore wasteful.

(Paragraph 3.1.10.2)

There were delay in completion of projects ranging from three months to 14 years due to land disputes, change of alignment, fund constraints, late allotment of works, *etc.* rendering an expenditure of ₹ 122.85 crore largely unfruitful. Besides, due to indiscriminate sanction of projects without any plan or prioritisation, the Roads and Bridges Wing had huge committed liability of ₹ 60.05 crore

(Paragraph 3.1.10.4)

Expenditure of ₹ 2.71 crore incurred on two projects (one road: ₹ 27.96 lakh; one bridge: ₹ 2.43 crore) had become unproductive, as these projects remained incomplete due to land dispute (road) and due to discontinuation of works by the contractor (bridge).

(Paragraph 3.1.12.2)

Unauthorised deviation from the sanctioned estimate resulted in excess expenditure of ₹ 11.43 crore.

(Paragraph 3.1.12.5)

Quality control was not accorded due priority as the mandatory tests prescribed in Specifications for Road and Bridge Works published by the Indian Roads Congress was not carried out.

(Paragraph 3.1.13)

Monitoring and internal control mechanism in the Roads and Bridges Wing were poor. There was also no mechanism in the Wing for overall impact evaluation of the completed road and bridge projects.

(Paragraphs 3.1.16 & 3.1.17)

3.1.1 Introduction

The Meghalaya Public Works Department (PWD) consisting of two wings *viz.,* Roads & Bridges (R&B) Wing and Buildings Wing, came into existence with the creation of the State of Meghalaya on 21st January 1972. The main functions of the R&B Wing were *inter alia* to (i) plan and develop State road network (excluding national highways[1] in the State), (ii) maintain the existing road network and, (iii) upgrade the existing network of road and bridges, replacement of old and weak bridges and widening/improving/strengthening the grade/surface of different roads. The PWD is executing central sector schemes like national highways, strategic roads, Pradhan Mantri Gram Sadak Yojana (PMGSY) and North Eastern Council funded roads.

When Meghalaya attained statehood, it inherited a total road length of 2786.68 km including 461.42 km of national highways and had a road density of 12.42 km per 100 square kilometer (sq km). Considerable achievement has since been made and up to the end of March 2011, the total road length has gone up to 9556.24 km. The road density in the State was 41.69 km per 100 sq km as of March 2011.

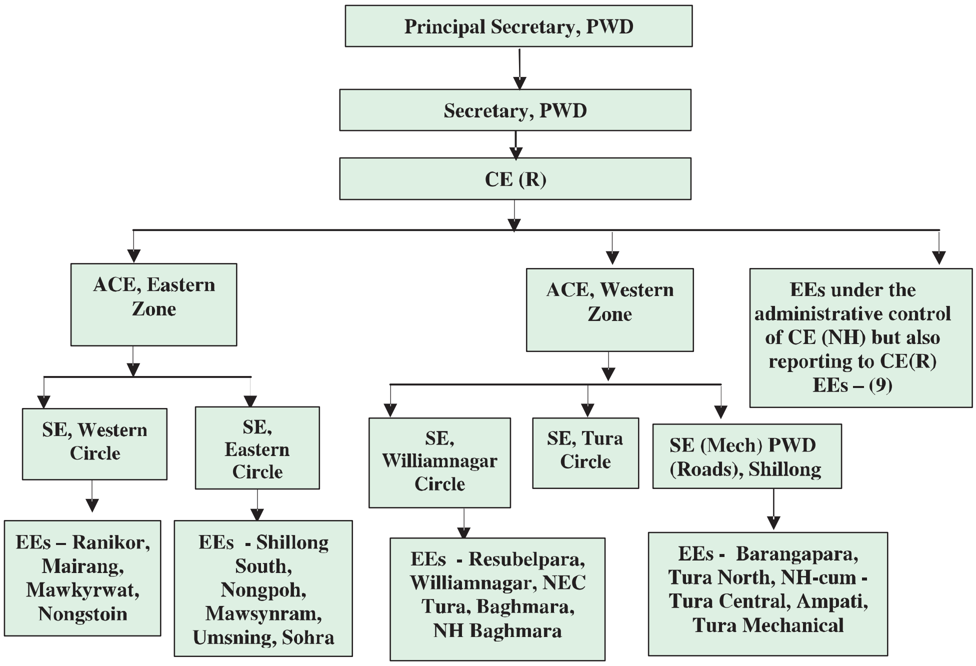
3.1.2 Organisational set up

The Principal Secretary is the administrative head of the PWD. The Chief Engineer (Roads) [CE(R)] is the functional head and Controlling Officer of the R&B Wing of the PWD. Likewise, the CE (Buildings) is responsible for construction and maintenance of residential and non-residential buildings of the various departments of the State. The CE (Standards), who is also the Empowered Officer of State Rural Road Development Agency (SRRDA), is responsible for research and training as well as implementation of PMGSY. The CE (R) is assisted by two Additional Chief Engineers (ACE), five Superintending Engineers (SE) and 28 Executive Engineers

[1] The responsibility of maintenance and development of national highways in the State vests with the Chief Engineer (National Highways) of the PWD.

(EE) heading PWD divisional offices [of which nine[2] EEs though under the administrative control of the Chief Engineer (National Highways), also report to the CE(R) for projects/works executed by them in respect of the State road network]. The organisational set up of the R&B Wing is given below:

Chart 3.1



3.1.3 Scope of Audit, Sampling and Audit Methodology

Functioning of the R&B Wing during 2006-07 to 2010-11 was reviewed through test-check (April-July 2011) of records of the CE(R) and 14 PWD divisional offices[3] (12 road divisions and two mechanical divisions) of the R&B Wing and their subordinates in three[4] out of seven districts of the State. The scope of audit was limited to only R&B Wing as the funding pattern, accounting methodology and other parameters connected with PMGSY are different and are being looked after by a separate wing, *viz.* SRRDA. Similarly, the scope of audit also did not include the activities of the CE (Buildings) as the funding and administrative approval of works executed by this wing are not solely under its control.

[2] Jowai Mechanical; Jowai South; Jowai North; Jowai NEC; NH Bye-Pass, Shillong; Shillong Central; NH, Shillong; Jowai Central; and, Shillong Mechanical.

[3] Road divisions: *East Khasi Hills District* – Shillong Central; Shillong South; NH Shillong; NH Bye-Pass, Shillong; Sohra and Mawsynram. *Jaintia Hills District* – Jowai Central; Jowai South; Jowai North and NEC Jowai. *East Garo Hills District* – Williamnagar and Resubelpara.
Mechanical divisions: Shillong Mechanical Division and and Jowai Mechanical Division.

[4] East Khasi Hills, Jaintia Hills and East Garo Hills Districts.

The three districts were selected considering their geographical locations[5]. Out of 503 projects under execution by the 12 road divisions in these districts during 2006-11, 147 projects were selected for scrutiny by simple random stratified sampling on the basis of expenditure[6].

Before the commencement of audit, an entry conference was held on 29 April 2011 with the Secretary, PWD, where audit objectives, criteria and methodology were explained. In the course of this review, audit evidences and observations were formulated on the basis of records made available, discussions with officials of the R&B Wing of the PWD and joint physical verification (wherever considered necessary). Audit findings were discussed with the Secretary, PWD, CEs (Roads, NH and Standards) and the representative from the Finance Department at an 'exit conference' held on 21 October 2011 and their views incorporated in this review at appropriate places.

3.1.4 Audit Objectives

Audit was taken up with the objective of examining and assessing:

- The adequacy and efficacy of the planning process;
- Efficiency, economy and effectiveness of execution of the Department's mandated activities;
- Adequacy and effectiveness of quality control practices;
- Efficacy of asset and human resources management; and,
- Adequacy and effectiveness of monitoring mechanism.

3.1.5 Audit Criteria

The audit observations were benchmarked against the following criteria:

- Guidelines for planning;
- Prescribed procurement and quality control procedure;
- Progress reports and reports and returns of field units; and,
- Prescribed monitoring mechanism.

3.1.6 Acknowledgement

Audit acknowledges the cooperation extended by the officers/officials of the PWD to Audit personnel in carrying out this assignment.

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[5] One district each from three regions of the State, *viz.* Khasi Hills, Jaintia Hills and Garo Hills.

[6] 503 projects were divided into three strata on the basis of expenditure: Stratum 1: Expenditure below ₹ 0.50 lakh; Stratum 2: Expenditure above ₹ 0.50 lakh and up to ₹ 1 crore; Stratum 3: Expenditure above ₹ 1 crore. 147 works were finally selected from the three stratum (25 *per cent* from Stratum 1, 25 *per cent* from Stratum 2 and 50 *per cent* from Stratum 3).

3.1.7 Audit Findings

The points noticed during the course of this review have been grouped as under and discussed in the succeeding paragraphs:

- **Financial Management**
  - Budget provision and expenditure - *Rush of expenditure – Parking of funds*
- **Planning**
- **Project Management**
  - Target and Achievement – Pre-closure/De-sanctioning of projects– Sanction of projects - Timeliness of execution of projects – *Committed liabilities*
- **Contract Management**
- **Project Execution**
  - Lack of proper planning resulting in wasteful expenditure – Non-completion of works resulted in unproductive expenditure – Delay in allotment of work resulted in extra expenditure/committed liability – Unauthorised expenditure – Deviation from sanctioned estimates
- **Quality Control**
- **Material Management**
  - Stock/Tools and Plant – *Discrepancies in stock – Holding of excess stock – Physical verification of stock – Road rollers*
- **Human Resources Management**
  - Manpower in regular establishment – Muster Roll workers
- **Internal Control Mechanism**
  - Inspection – Checking of Measurement Book - Non-reconciliation of Forms 50-51 – Lapsed deposits – Delay in deposit of revenue
- **Monitoring and Evaluation**
- **Conclusion**
- **Recommendations**

3.1.8 Financial Management

3.1.8.1 Budget provision and expenditure

Budget provision *vis-à-vis* expenditure of the R&B Wing during 2006-07 to 2010-11 was as under:

Table 3.1

(₹ in crore)

Year	Budget provision			Expenditure			Excess (+) Savings (-) (*per cent*)		State's budget provisions (revenue and capital) and expenditure	
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Provision	Expenditure
2006-07	109.09	165.95	274.04	109.49	157.53	267.02	+ 0.40 (0.37)	- 8.42 (5.07)	2670.10 (10)	2227.87 (12)
2007-08	116.56	190.83	307.39	115.35	176.97	292.32	- 1.21 (1.04)	- 13.86 (7.26)	3443.60 (9)	2645.32 (11)
2008-09	124.66	198.40	322.66	112.64	197.86	310.50	- 12.02 (9.64)	- 0.54 (0.27)	4003.19 (8)	3213.79 (10)
2009-10	160.02	187.62	347.64	157.35	192.75	350.10	- 2.67 (1.67)	+ 5.13 (2.73)	4674.46 (7)	3663.67 (10)
2010-11	166.87	295.69	462.56	151.45	278.97	430.42	- 15.42 (9.24)	- 16.72 (5.65)	5528.66 (8)	4587.48 (9)
Total	**677.20**	**1038.49**	**1714.29**	**646.28**	**1004.08**	**1650.36**			**20320.01 (8)**	**16338.13 (10)**

(Figures in parentheses indicate percentage of budget provision and expenditure of R&B Wing to State's budget provision and expenditure)

Source: Information furnished by the R&B Wing/ State's position on the basis of Appropriation Accounts.

The above table shows that except for revenue expenditure in 2006-07 and capital expenditure in 2009-10, the year-wise expenditure was always lower than the budget provisions leading to savings ranging between 0.27 *per cent* and 10 *per cent*. During 2006-11, 8 *per cent* of budget provisions (revenue and capital) of the State were earmarked for the R&B Wing and the expenditure thereagainst constituted 10 *per cent* of the State's expenditure during the period. The CE(R) stated (November 2011) that the savings were mainly due to short release of funds by Government.

3.1.8.2 Rush of expenditure

Rush of expenditure at the close of the year can lead to infructuous, nugatory or ill-planned expenditure. It was noticed that during 2006-11, expenditure incurred by the 14 divisions in the three selected districts during March every year ranged between 26 *per cent* and 34 *per cent* of their total expenditure during the year, as shown below:

Table 3.2

(₹ in crore)

Year	Expenditure during the year	Expenditure during March	Percentage of expenditure incurred during March to total expenditure
2006-07	163.21	55.52	34
2007-08	190.52	58.75	31
2008-09	231.01	73.71	32
2009-10	236.50	64.20	27
2010-11	241.37	61.84	26

Source: Information furnished by the divisions

As can be seen from the table above, the uniform flow of expenditure during the year, which is a primary requirement of budgetary control, was not maintained indicating deficient financial management. The CE(R) stated (September 2011) that the reason for the rush of expenditure was due to release of funds by the State Government at the fag end of the year. The CE(R) further stated (November 2011) that the working season in the State starts after monsoon for which most of the works are completed in March leading to rush of expenditure in this month.

3.1.8.3 Parking of funds

On the instructions of the State Finance Department, funds released to the 12 road divisions in the three selected districts in the month of March every year during 2006-11 were parked by them under the head "8443-Civil Deposits" to avoid lapse of funds. Out of ₹ 64.96 crore thus parked during the period, ₹ 38.56 crore was withdrawn, again on the instructions of the Finance Department, after one month to three years. The details are given below:

Table 3.3

(₹ in crore)

Year	Amount kept in 'Civil Deposit'	Amount released		Amount lying unutilised in 'Civil Deposit' as at the end of July 2011
		Amount	Date of release	
2006-07	11.94	10.26	Between May 2007 and June 2010	1.68
2007-08	15.63	13.51	Between June 2008 and September 2010	2.12
2008-09	7.68	4.97	Between June 2009 and March 2011	2.71
2009-10	13.79	9.82	Between June 2010 and March 2011	3.97
2010-11	15.92	0	-	15.92
Total	**64.96**	**38.56**		**26.40**

Source: Information furnished by the concerned divisions

The above practice was a violation of Rule 211 of the Meghalaya Financial Rules (MFR), 1981, which prohibits drawal of money in anticipation of demand or to prevent lapse of budget grants.

The CE (R) stated (November 2011) that the concerned divisions had been asked to utilise the funds immediately.

3.1.9 Planning

Public participation is an important component in planning which allows plans to be considered from a variety of perspectives and helps in identifying the potential problems in the process. For providing missing links and increasing connectivity to villages, remote areas and for facilitating construction of roads on scientific lines, it is necessary to have a comprehensive road policy and prepare perspective plans at the State level, based on the inputs from the divisional/district level, showing a detailed road map of the area, specification for different roads, norms for maintenance in view of manifold increased in passenger transport and freight axle load. Annual works plans are to be prepared from the perspective plan and works prioritised for completion within the specified time period.

It was noticed that

- The R&B Wing had not formulated any road policy till date even after 40 years of its existence and hence, the activities undertaken by it were devoid of a long term policy perspective.

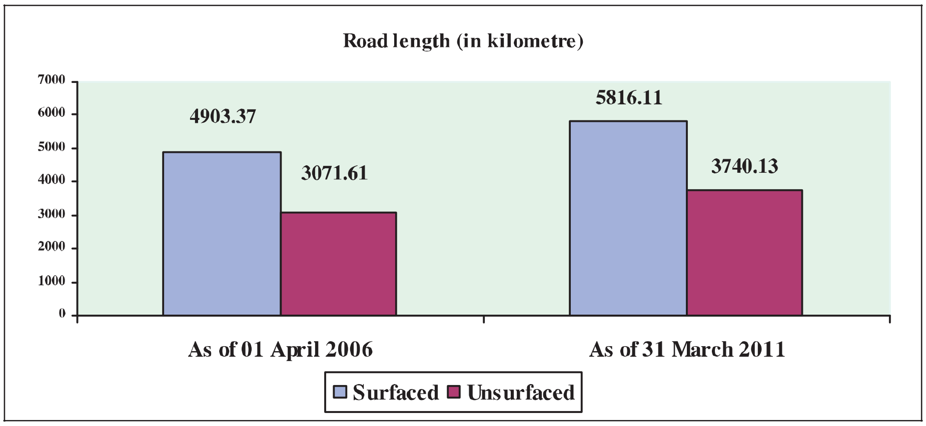
➢ The R&B Wing had also not prepared any medium/long-term perspective plan or master plan relating to road connectivity in the State, the absence of which led to defective implementation of projects as detailed in the succeeding paragraphs.

➢ The Annual Plans prepared by the R&B Wing included only the physical targets without indicating financial targets and such plans.

The CE (R) stated (November 2011) that step to prepare a perspective road plan has been initiated.

3.1.10 Project Management

According to information furnished by the CE (R), as of 01 April 2006, the road length of the State (including bridges) was 7,974.98 km which was extended to 9,556.24 km at the end of 2010-11. The position is pictorially depicted below:



Efficient project management skills are critical to ensure proper formulation, planning and estimation of projects, monitoring their financial/physical progress, their timely completion, expeditious utilisation of the assets created, overall resource availability, liabilities, *etc*.

The status of projects sanctioned by the R&B Wing during 2006-11 for the State and their up-to-date physical/financial status, called for from the CE(R) in April and July 2011, was only furnished in November 2011 – the data, however, was incorrect. The inability of the CE(R) to furnish this basic data indicated that monitoring and project management practices in the R&B wing were weak.

Information with respect to the above was, however, collated by Audit for the 12 road divisions in the three selected districts. Results of analysis of these data are enumerated below.

3.1.10.1 Target and Achievement

According to the annual target and achievement reports furnished by the CE(R) to the State Government, the physical targets fixed by the PWD during 2006-11 for various road and bridge works in the State and achievement thereagainst were as under:

Table 3.4

Year	Target				Achievement			
	Kutcha road	Black topped road	Improve-ment/ widening	Bridges/ Culverts	Kutcha road	Black topped road	Improve-ment/ widening	Bridges/ Culverts
	(km)			(RM)	(km)			(RM)
2006-07	89.00	166.00	70.00	848.00	56.95	66.52	41.30	230.00
2007-08	72.00	142.00	38.00	512.00	72.00	142.00	38.00	312.00
2008-09	76.00	149.00	40.00	536.00	273.92	279.45	269.16	1134.83
2009-10	107.00	211.00	57.00	761.00	175.97	244.60	98.96	686.56
2010-11	71.00	120.00	23.00	1406.00	89.68	177.08	56.40	727.76
Total	**415**	**788**	**228**	**4063**	**668.61**	**909.65**	**503.82**	**3091.14**

Source: Information furnished by the CE(R)

As can be seen from the table above,

- except for 2006-07, the CE(R)'s reports indicated that the targets had been exceeded in the other four years; and,
- during 2006-11, except for bridges/culverts, the overall achievement during the period in respect of all the other items of works exceeded the targets.

Information however furnished to Audit by the 12 road divisions in the three selected districts indicated that the targets for these divisions were much higher than those furnished by the CE(R) for the State. Consequently, there were shortfalls of 49 *per cent* to 70 *per cent* in achievement of targets during 2006-11 in respect of three items of works fixed for these divisions. The details were as under:

Table 3.5

Particulars	Black topped road	Improvement	Bridges	Culverts
	(km)		(RM)	(Number)
Target	1170.14	373.06	2116.71	2243
Achievement	386.31	191.95	627.80	1140
Shortfall	783.83	181.11	1488.91	1103
Percentage of shortfall	67	49	70	49

Source: information furnished by the divisions concerned.

During exit conference, the CE(R) stated that the targets are fixed consolidating the divisional targets and taking into consideration the fund position. Mismatch between the position available with the CE(R) and the divisions, indicated that there was lack of coordination in the R&B Wing and the projects were being executed by the divisions on the basis of unrealistic targets.

3.1.10.2 Pre-closure/De-sanctioning of projects

Records of the 12 road divisions in the three selected districts revealed that during 2006-11 in 11 divisions, 166 out of 557 projects sanctioned prior to 2006-07 but under execution during 2006-11 were either pre-closed[7] (Roads: 89; Bridges: 5) or de-sanctioned[8] (Roads: 64; Bridges: 8) on various grounds like unsatisfactory progress, fund constraints, escalation in the cost of pipes/bitumen, *etc.* Similarly, three road

[7] Premature closure of ongoing works.
[8] Works sanctioned for execution, but the sanction was withdrawn before inviting tenders.

projects sanctioned during 2006-07 were also either pre-closed (two projects) or de-sanctioned (one project) during March 2009. Division-wise position of these works is given below:

Table 3.6

(₹ in lakh)

Sl. No.	Divisions	Pre-closed projects				De-sanctioned projects		
		Number of projects Roads/Bridges	Sanc-tioned amount	Expen-diture	Physical progress (*per cent*)	Number of projects Roads/Bridges	Sanc-tioned amount	Expen-diture
	East Khasi Hills District							
1.	Sohra Divisions	2/ -	80.63	54.30	0 and 50	16/ -	595.14	0
2.	NH Bye Pass	18/ -	915.46	223.06	15 to 88	03/ 01	309.80	2.18
		01[9]/ -	48.65	77.28	80	-	-	0
3.	Mawsynram	03/ -	318.04	160.16	0 to 80	05/ -	412.80	12.96
4.	Shillong South	14/ -	653.09	235.67	0 to 30	05/ -	292.63	0.86
5.	Shillong Central	07/ -	254.72	56.22	15 to 64	15/ 02	430.21	0
		01[9]/ -	162.53	24.82	27	01[9]/ -	27.17	0
6.	NH, Shillong	04/ -	432.83	50.45	5 to10	-/ 01	28.22	0.15
	Jaintia Hills District							
7.	NEC, Jowai	14/ 01	1457.33	626.59	20 to 90	5/ 01	393.21	-
8.	Jowai South	03/ -	112.61	55.63	10 to 50	5/ -	223.71	-
9.	Jowai North	13/ -	1503.23	148.65	8 to 30	5/ -	203.70	-
	East Garo Hills District							
10.	Williamnagar	05/ 03	1922.49	162.06	5 to 30	03/ 02	930.84	-
11.	Resubelpara	06/ 01	427.77	80.20	10 to 31	02/ 01	104.84	-
	Total	**91/ 05**	**8289.38**	**1955.09**		**65/ 08**	**3952.27**	**16.15**

Source: Information furnished by the divisions concerned.

As can be seen from the table above, 96 projects sanctioned at an estimated cost of ₹ 82.89 crore were pre-closed during 2006-11 after incurring an expenditure of ₹ 19.55 crore. Further, 73 projects, sanctioned at an estimated cost of ₹ 39.52 crore were de-sanctioned in March 2009 - in 15 of these projects, an expenditure of ₹ 16.15 lakh had been incurred on execution of earthwork and procurement of stone metal/gravel, stationery, *etc.* without the projects being actually undertaken. Out of 96 pre-closed projects, 19 projects were pre-closed after physical achievement of 50 *per cent* to 90 *per cent* involving expenditure ranging from ₹ 9.24 lakh to ₹ 2.12 crore. A few such cases are given below:

Table 3.7

(₹ in lakh)

Sl. No.	Name of Road	Month and year of sanction	Sanc-tioned cost	Expendi-ture incurred	Physical progress (*per cent*)	Reasons for pre-closure
1.	Lulong College Road to Luti Iong Shylla	March 1991	31.55	23.27	50	Non-availability of fund
2.	MBT of DSSMH road at Sakain	January 1996	58.38	58.76	70	Unsatisfactory progress of work
3.	Improvement including MBT of Sutnga – Khaddum road	NA	79.93	52.88	72	-do-
4.	Improvement including MBT of internal road at Lynti Bri (Pdengshnong, Nongdawa road)	September 2007	48.65	77.28	80	Escalation in the price of bitumen
5.	Improvement including MBT of Mawdiangdiang – Lumkseh road	July 1996	49.42	54.36	88	-do-

9 Sanctioned during 2006-07

Sl. No.	Name of Road	Month and year of sanction	Sanc-tioned cost	Expendi-ture incurred	Physical progress (*per cent*)	Reasons for pre-closure
6.	Myllat to Lyting Lyngdoh	July 2002	204.00	128.55	100 (Formation) (one out of five bridges complete)	Non-completion after many years.
7.	Missing approaches to bridge and culvert including re-habitation work on Borghat Sonapur Road	February 2004	531.00	212.00	90	Not specified

Source: Information furnished by the divisions concerned.

Thus, in the absence of a State Road Policy/Perspective Plan/Master Plan, projects were taken up/sanctioned haphazardly without proper planning, which led to pre-closure/de-sanction of projects resulting in wasteful expenditure of ₹ 19.71 crore.

The CE(R) stated (November 2011) that due to scarcity of resources during 2008-09, Government decided to pre-close slow progress projects and de-sanction non-starter projects. The reply is not convincing because taking up of any project for execution without first ensuring the availability of financial resources was not a prudent exercise.

3.1.10.3 Sanction of projects

The position of projects[10] sanctioned by the R&B Wing during 2006-11 for execution by the divisions in three selected districts is given below:

Table 3.8

(₹ in crore)

Sl. No.	Name of Division	Position of projects sanctioned during 2006-07 to 2010-11						
		Number of projects sanc-tioned	Sanc-tioned amount	Total expendi-ture	Projects completed		Position of ongoing projects	
					Number of works	Expendi-ture	Number of works	Physical progress (*per cent*)
1.	Shillong Central	02	0.42	0.24	01	0.19	01	0
2.	Shillong South	23	11.92	7.45	16	3.72	07	18-70
3.	NH Shillong	0	0	0	0	0	0	0
4.	NH Bye Pass, Shillong	15	12.22	3.22	05	2.20	10	0-80
5.	Sohra	22	59.38	45.45	10	5.90	12	0-95
6.	Mawsynram	05	10.81	5.59	01	0.80	04	2-85
7.	Jowai Central	04	2.75	1.25	02	0.76	02	20-55
8.	Jowai North	04	8.72	1.23	0	0	04	15-70
9.	Jowai South	12	47.65	12.10	05	5.87	07	0-96
10.	Jowai NEC	14	92.84	63.09	07	34.90	07	0-96
11.	Williamnagar	05	18.35	11.56	0	0	05	15-85
12.	Resubelpara	05	18.59	1.98	0	0	05	5-60
Total		**111**	**283.65**	**153.16**	**47**	**54.34**	**64**	

Source: Information furnished by the divisions concerned.

As can be seen from the table above, the R&B Wing sanctioned 111 projects at an estimated cost of ₹ 283.65 crore for execution by the 12 road divisions during 2006-11. On the other hand, 169 projects sanctioned prior to 2006-07 (166 projects)

[10] Excluding two pre-closed projects and one de-sanctioned project mentioned in paragraph 3.1.10.2

and during 2006-07 (three projects) for execution in 11 out of the above 12 divisions were either pre-closed or de-sanctioned after incurring an expenditure of ₹ 19.71 crore (refer paragraph 3.1.10.2).

3.1.10.4 Timeliness of execution of projects

As per information furnished by the 12 road divisions in the three selected districts, there were 391 projects sanctioned prior to 2006-07 and which were all to have been completed by March 2011. Of these, 234 projects were completed by March 2011 while 157 projects were still incomplete - the delays ranged from three months to 14 years. As of March 2011, expenditure on these incomplete projects was ₹ 86.13 crore against estimated cost of ₹ 147.69 crore.

Further, during 2006-11, 111 projects were sanctioned for execution by the divisions in question of which 65 projects were stipulated for completion by March 2011. Out of the 65 projects, 47 were completed by March 2011. As of March 2011, expenditure on the 18 incomplete projects was ₹ 36.72 crore against estimated cost of ₹ 52.79 crore.

The delay in completion of projects is summarised below:

Table 3.9

(Projects in number)

Sl. No.	Division	Incomplete projects			Period of delay			
		Projects sanctioned prior to 2006-07	Projects sanctioned during 2006-11	Total	Three months to one year	Over one year to five years	Over five years to 10 years	Over 10 years to 14 years
1.	Shillong Central	32	0	32	0	32	0	0
2.	Shillong South	11	06	17	15	02	0	0
3.	NH Shillong	05	0	05	04	01	0	0
4.	NH Bye-Pass, Shillong	30	05	35	35	0	0	0
5.	Sohra	05	0	05	05	0	0	0
6.	Mawsynram	10	02	12	02	04	01	05
7.	NEC Jowai	13	01	14	13	1	0	0
8.	Jowai North	23	01	24	04	14	04	02
9.	Jowai South	10	01	11	02	09	0	0
10.	Jowai Central	0	0	0	0	0	0	0
11.	Williamnagar	08	02	10	9	0	01	0
12.	Resubelpara	10	0	10	05	03	0	02
	Total	**157**	**18**	**175**	**94**	**66**	**06**	**09**

Source: Information furnished by the divisions concerned.

To sum up, the position with respect to the selected divisions was:

- 40 and 28 *per cent* of projects sanctioned prior to 2006-07 and during 2006-11 respectively were still to be completed;
- of the total of 175 incomplete projects, 94 projects (54 *per cent*) were delayed by three months to one year, 66 projects (38 *per cent*) by one to five years, six projects (3 *per cent*) by five to ten years and nine projects (5 *per cent*) over 10 to 14 years.

As per the replies furnished to Audit by the concerned road divisions, the reasons for the delays in completion of projects were due to the following:

Table 3.10

Sl. No.	Reasons for delay	Position of incomplete works sanctioned prior to 2006-07		Position of incomplete works sanctioned during 2006-11	
		Number of works	Divisions	Number of works	Divisions
1.	Non-availability of land/ land dispute	12	Jowai South (02), Shillong Central (01), NH Bye-Pass (08) and Jowai North (01)	01	Jowai South (01)
2.	Change of alignment	01	Jowai South (01)	0	-
3.	Early monsoon, heavy rainfall, flash flood and site conditions	20	NEC Jowai (04), Shillong Central (01), NH Bye-Pass (05) and Resubelpara (10)	03	Mawsynram (02) and NEC Jowai (01)
4.	Fund shortage	02	NEC Jowai (02)	01	Shillong South (04)
5.	Late allotment/ late commencement/ slow progress by contractor	22	Jowai South (02), Shillong South (04), Jowai North (15) and NEC Jowai (01)	03	Shillong South (03)
6.	Abandonment of work by contractors	12	NEC Jowai (06), Jowai South (03) and Jowai North (03)	0	-
7.	Revision of estimates	12	Jowai South (01), Shillong Central (01), Sohra (04), NH Shillong (01), NH Bye-Pass (01), Jowai North (01) and Mawsynram (03)	0	-
8.	Reasons not furnished	76	Jowai South (01), Sohra (01), Shillong Central (29), Shillong South (07), NH Bye-Pass (16), NH Shillong (04), Jowai North (03), Williamnagar (08) and Mawsynram (07)	10	Shillong South (02), NH Bye-Pass (05), Jowai North (01) and Williamnagar (02)
	Total	**157**		**18**	

(Figures in parentheses indicate number of projects)
Source: Information furnished by the divisions concerned.

The reasons for the delays at Serial 01 to 04 of table above are not acceptable because projects should have been taken up for execution after taking into consideration these aspects and ensuring availability of financial resources. Reasons for delays as indicated at Serial 05 to 07 were indicative of a lack of commitment to ensure timely completion of projects taken up for execution. Consequently, expenditure of ₹ 122.85 crore incurred on the 175 incomplete projects remained largely unfruitful. Photographs along with details of a few incomplete projects are given below:

Name of Division: Shillong Central

Name of project: Improvement including widening of Nongmali Road including slab covering at Mali I & II

Month/year of sanction: March 2006

Scheduled month/year of completion: March 2009

Sanctioned cost: ₹ 33.55 lakh

Expenditure up to March 2011: ₹ 18.05 lakh

Month/year of commencement: August 2007

Number of contractors: 26

Physical progress till March 2011: 28 *per cent*

Reasons for delay: Fund constraints.

	**Name of Division**: Jowai North **Name of project**: Improvement including MBT of Sahsniang Kureliya Road (6 km) **Month/year of sanction**: March 2006 **Scheduled month/year of completion**: March 2009 **Sanctioned cost**: ₹ 1.71 crore **Expenditure till March 2011**: ₹ 60.94 lakh **Month/year of commencement**: February 2007 **Scheduled date of completion**: March 2008 **Number of contractors**: 71 **Physical progress till March 2011**: 50 *per cent* **Reasons for delay**: Re-allotment of work due to failure in commencement of work initially allotted to seven contractors.
	**Name of Division**: Jowai North **Name of project**: Re-construction of major bridge over river Myntang along with approaches on Sahsniang Kureliya **Month/year of sanction**: August 2004 **Scheduled date of completion**: July 2005 **Sanctioned cost**: ₹ 4.29 crore **Expenditure till March 2011:** ₹ 2.43 crore **Month/year of commencement**: July 2005 **Name of contractor**: M/s R.B. Associates JV **Physical progress till March 2011**: 67 *per cent* **Reasons for delay**: Non-completion of work by contractor despite repeated requests, delay in manufacturing of bridge unit and remoteness of the site of work.
	**Name of Division**: Jowai North **Name of project**: Improvement including MBT of Laskein-Barato Road (0-5 km) **Month/year of sanction**: March 1992 **Scheduled date of completion**: March 1995 **Sanctioned cost**: ₹ 35.27 lakh **Expenditure till March 2011**: ₹ 36.25 lakh **Month/year of commencement**: May 1994 **Number of contractors**: 18 **Physical progress till March 2011**: 70 *per cent* **Reasons for delay**: Work was discontinued by the contractors because of increase in the cost of bitumen.
	**Name of Division**: Jowai South **Name of project**: Improvement including MBT of Syndai-Kmaishnong to Syndai Mission Village (2 km) **Month/year of sanction**: March 2006 **Scheduled date of completion**: March 2009 **Sanctioned cost**: ₹ 38.63 lakh **Expenditure till March 2011**: ₹ 7.51 lakh **Month/year of commencement**: March 2007 **Number of contractors**: 33 **Physical progress till March 2011**: 45 *per cent* **Reasons for delay**: Re-tendering of the work due to refusal of the initial contractor.

	**Name of Division**: NEC Jowai **Name of project**: Construction of Pala Umkyrpong-Mooriap Road (0-5.6 km) including RCC bridge, *etc.* **Month/year of sanction**: March 2006 **Scheduled date of completion**: May 2008 **Sanctioned cost**: ₹ 1.97 crore **Expenditure till March 2011**: ₹ 95.08 lakh **Month/year of commencement**: May 2007 **Number of contractors**: 24 **Physical progress till March 2011**: 70 *per cent* **Reasons for delay**: Discontinuation of work by the contractor because of non-payment of bills due to fund crunch.
	**Name of Division**: NEC Jowai **Name of project**: Improvement including MBT of Pala Saipung (6-10 km) **Month/year of sanction**: March 2006 **Scheduled date of completion**: May 2008 **Sanctioned cost**: ₹ 1.29 crore **Expenditure till March 2011**: ₹ 41.25 lakh **Date of commencement**: March 2007 **Number of contractors**: 20 **Physical progress till March 2011**: 20 *per cent* **Reasons for delay**: Discontinuation of work by the contractor because of non-payment of bill due to fund crunch.
	**Name of Division**: Mawsynram **Name of project**: Construction of a Road from Mawsynram to Thieddieng **Month/year of sanction**: March 1996; Revised: September 2006 **Scheduled date of completion**: March 2009 **Sanctioned cost**: ₹ 1.30 crore **Expenditure till March 2011**: ₹ 1.29 crore **Month/year of commencement**: September 2007 **Number of contractors**: 18 **Physical progress till March 2011**: 20 *per cent* **Reasons for delay**: Increase in volume of work due to extreme terrain and rocky site condition resulting in revision of estimate.
	**Name of Division**: Mawsynram **Name of project**: Improvement including metalling and blacktopping of Mawiong-Mawryngkhong Road (1.651 km) **Month/year of sanction**: March 2007 **Scheduled date of completion**: March 2009 **Sanctioned cost**: ₹ 85.25 lakh **Expenditure till March 2011**: ₹ 48.42 lakh **Month/year of commencement**: June 2010 **Number of contractors**: 18 **Physical progress till March 2011**: 60 *per cent* **Reasons for delay**: Discontinuation of work due to paucity of funds.

➢ ***Committed liabilities***: As is evident from the above, the sanctions accorded by the R&B Wing were unplanned and indiscriminate with resultant adverse financial consequences. As of March 2011, the committed liabilities of the 12 road divisions in the three selected districts was ₹ 60.05 crore.

3.1.11 Contract Management

The R&B Wing engages contractors for execution of all road and bridge construction projects and only the regular maintenance works are undertaken departmentally. There are three categories of contractors registered in the PWD *viz*., (i) Class-I contractors registered with CE(R); (ii) Class-II contractors registered with SEs; and, (iii) Class-III registered with EEs.

During 2006-11, the number of Class-I contractors registered with CE(R) were as under:

Table 3.11

	2006-07	2007-08	2008-09	2009-10	2010-11
No. of Class I contractors	658	594	650	723	735

Source: Information furnished by the CE(R)

➢ As per norms fixed by the R&B Wing, Class-I contractors were to posses machinery like crushers/concrete mixers, vibrators, *etc.* Out of 58 Class I contractors registered during 2006-11 whose credentials were checked by Audit, 20 contractors did not possess requisite machinery of their own. Affidavits declaring that the machinery were taken on rent/or could be taken on hire basis were made by these contractors.

➢ Scrutiny of tender documents, comparative statements, *etc.* in respect of 28 out of 50 tenders floated by the CE (R) during 2006-11 revealed that participation of contractors per tender ranged between two and seven despite the large number of registered Class-I category contractors. This indicated that majority of the registered contractors were non-serious/unqualified players who used their registration for cartelisation of the tenders and not for actual participation in the bids. The R&B Wing had not taken any step till date to evaluate the situation and restrict registration of contractors with a view to register only the serious players thereby enhancing competition in the bidding process for obtaining more economical rates.

The CE (R) stated (November 2011) that the Department was working out a plan to revise the eligibility criteria for registration of contractors so as to ensure proper screening and evaluation at the time of registration.

3.1.12 Project Execution

According to Rules 243 and 244 of the Meghalaya Financial Rules, 1981, for every work (except petty works), it is necessary to obtain administrative approval of the department concerned before taking up of any work. A detailed estimate for the proposed work is also to be prepared for technical sanction by the competent authority. As its name indicates, it amounts to no more than a guarantee that the proposals are structurally sound and that the estimates are accurately calculated and based on adequate data. Irregularities noticed in execution of different projects by the divisions of the selected districts are discussed in the succeeding paragraphs.

3.1.12.1 Lack of proper planning resulting in wasteful expenditure

The work **"Construction of bridge No. 74/1 on Mawphlang-Balat Road including Subway"**, estimated to cost ₹ 83.87 lakh, was administratively approved in October 2006. Technical sanction to the estimate was accorded by the CE(R) in February 2007. The work was awarded by the executing division, *viz.* Mawsynram Division, to a contractor at ₹ 69.46 lakh in April 2007 and was to be completed by April 2009. While the work was in progress and the expenditure on the same was only ₹ 1.72 lakh, the Sub-Divisional Officer, Balat Sub-Division (executing Sub-Division) proposed to the EE, Mawsynram Division in November 2007 for revision of the estimate of the work as the single span sub-way bridge and also the length of the main bridge provided in the estimate was inadequate. A review meeting of the PWD held in July 2009 observed that the planning of the work was faulty. Therefore, a decision should have been taken at this point of time about the fate of the project before incurring further expenditure. However, no corrective measure was taken by the R&B Wing. It was only in December 2010, that the CE(R) proposed to the Secretary, PWD for pre-closure of the work. Meanwhile, the work was stopped in September 2010 after incurring an expenditure of ₹ 18.53 lakh. Thus, due to faulty planning and lack of initiative in taking timely action resulted in wasteful expenditure of ₹ 18.53 lakh. The CE(R) stated (November 2011) that the material worth ₹ 4.05 lakh procured for the bridge would be transferred to other sanctioned bridge projects.

3.1.12.2 Non-completion of works resulted in unproductive expenditure

➢ Construction of **Pdengshnong-Pomsohmen Road** under Sohra PWD Division, estimated to cost ₹ 38.12 lakh, was administratively approved in February 2003 with the objective of providing a vehicular road of 2 km length to the people of two villages (Pdengshnong and Pomsohmen). The land required for construction of the road was given by villagers free of cost. The work, though stipulated for completion by March 2005, commenced only in December 2006 due to delay in inviting tenders (nine months) and finalisation of work order (11 months). After attaining 20 *per cent* physical progress against an expenditure of ₹ 27.96 lakh, the work was totally stopped in March 2009 due to a land dispute with the villagers. The R&B Wing as of July 2011 was yet to take any initiative to solve the dispute and resume the work. Consequently, the expenditure of ₹ 27.96 lakh incurred on the work was rendered unproductive so far besides depriving the villagers of the intended benefit.

The CE(R) stated (November 2011) that despite pursuance with the *Rangbah Shnong*[11] and land owners, the land could not be made available thereby leaving no

[11] Head of the Village Council

alternative but to pre-close the project during 2009 and that the completed portion (500 m) of the road was under utilisation by the public. The reply is not acceptable because the objective of providing a vehicular road of 2 km length to the people of two villages was not achieved despite utilisation of over 73 *per cent* of the estimated cost.

- The work **"Re-construction of Major Bridges across river Myntang along with its approaches on Sahsniang-Kureliya Road"** under Jowai North Division, estimated to cost ₹ 4.29 crore, was administratively approved and technically sanctioned in August 2004. The work was awarded (July 2005) to a Jowai based firm (M/s R.B. Associates JV) at a cost of ₹ 3.69 crore and was to be completed by July 2008. As per Clause 2 of the agreement executed (July 2005) with the firm, the latter was liable to pay compensation for delay in completion of the work at one *per cent* of the tendered estimated cost of the work for every day that the work remained un-commenced or unfinished subject to a maximum of 10 *per cent* of the tendered estimated cost. Clause 3 of the agreement provided that in case the contractor rendered himself liable to pay compensation amounting to 50 *per cent* or more of the security deposit, the EE was to rescind the contract, forfeit the security deposit and get the work completed through another contractor at the cost of the original contractor.

It was noticed that extension of time for completion of the work as sought for by the firm on the ground of hindrance in carriage of material was granted (October 2008) by CE(R) up to July 2009. But after physical achievement of 67 *per cent* at an expenditure of ₹ 2.43 crore, the work was discontinued by the firm in March 2009 without citing any reasons. Since the work remained unfinished, the firm was liable for payment of compensation in excess of 50 *per cent* (₹ 3.70 lakh) of security deposit (₹ 7.40 lakh), in which case action as per Clause 3 of the agreement was to be taken by the EE. But the EE had not initiated any such action. Consequently, the work remained incomplete even after two years of the extended period rendering the expenditure of ₹ 2.43 crore unproductive.

The CE(R) stated (November 2011) that the firm was still continuing with the work and the penalty as applicable would be imposed as per provision in the tender agreement.

3.1.12.3 Delay in allotment of work resulted in extra expenditure/committed liability

The work **"Improvement of Riding quality of different roads"** involving 92,451.80 sqm of 23 roads under Shillong Central Division was sanctioned (March 2004) at ₹ 1.10 crore. The stipulated date of completion was, however, not indicated in the sanctioned estimate. The estimate of the work was revised to ₹ 1.59 crore in March 2008 due to increase in volume of work and cost of road material. The work was physically completed in March 2009 at a cost of ₹ 1.59 crore.

Scrutiny revealed that work orders for five roads involving 21,975 sqm were issued to various contractors by the EE in June 2004 at par with the Schedule of Rates (SOR)[12] 2000-01 which was ₹ 70.57 per sqm. Accordingly, these works were completed at a cost of ₹ 15.51 lakh. After a lapse of two years, work orders for the remaining 18 roads involving 70,476.80 sqm were issued (May 2006) by the CE(R) at the rate of ₹ 112.20 per sqm (59 *per cent* higher than the SOR-2000-01) and the works completed at a cost of ₹ 79.07 lakh. Consequently, the Division incurred extra avoidable expenditure of ₹ 29.34 lakh[13]. The EE stated (April 2011) that initially tenders for five works were finalised due to immediate requirement and on public demand. Delay of two years in allotment of the remaining works by the CE(R) and that too at higher rates, however, was unacceptable. The CE(R) stated (November 2011) that the delay was mainly due to certain modifications and additions of some items of works as per site requirements. The reply is not convincing as it neither specified the details of modifications/additional items nor was it supported by documentary evidence.

Government accorded administrative approval in March 2007 for construction of a **major bridge over river Myntdu on Dawki Muktapur Borghat-Road (Space 180 mtr)** under Jowai South Division at an estimated cost of ₹ 11.20 crore. Tenders for allotment of work were invited in May 2007 and the tender committee, in its meeting held in July 2007 negotiated with the lowest tenderer at ₹ 13.38 crore. But the work was not allotted to this tenderer till July 2008. The EE stated (September 2011) that the delay was due to the process of negotiation. Audit was of the view that the reply was an afterthought to cover up the lapse because the rate was already finalised by the tender committee with the contractor in July 2007. Due to the delay, the contractor refused (August 2008) to execute the work at his earlier agreed rate. Consequently, fresh tenders were invited in November 2008 and the work was finally awarded to a Kolkata based firm (M/s Hindustan Metal Refining Works (P) Ltd.) in July 2010 at a negotiated value of ₹ 14.90 crore and to be completed by May 2012. As of March 2011, physical achievement of the work was 9 *per cent* against expenditure of ₹ 1.78 crore. Thus, inordinate delay of one year in allotting the work after finalisation of the tender by the tender committee resulted in delay in commencement of the work; besides additional liability of ₹ 1.52 crore for award of work at higher rate. The CE(R) stated (November 2011) that the main cause of delay was higher tender rate.

Incomplete work of Bridge over river Myntdu on Dawki Muktapur Borghat Road

[12] NH Circle, Shillong

[13] 70,476.80 sqm x ₹ 41.63 (₹ 112.20 - ₹ 70.57) = ₹ 29.34 lakh

The reply was not acceptable because the rate initially recommended by the tender committee was 11.36 *per cent* lower than the rate at which the work was allotted.

3.1.12.4 Unauthorised expenditure

According to Rule 246 of the MFR, 1981, when owing to modification or deviations from the original proposals or in course of execution, it becomes apparent that the cost of the work will exceed the amount administratively approved by more than 10 *per cent*, revised administrative approval to the increased expenditure must be obtained. Scrutiny of records of the 12 road divisions in the three selected districts revealed that in 17 out of 530 projects under execution during 2006-11, though the expenditure (₹ 10.39 crore) exceeded the administratively approved estimated provision (₹ 8.89 crore) by over 11 *per cent* to 47 *per cent*, revised administrative approval was not obtained. Thus, the expenditure of ₹ 1.50 crore in excess of the approved cost was unauthorised. In two of these cases, the excess expenditure even reached to the level of 45 *per cent* and 47 *per cent*.

The CE(R) stated (November 2011) that the concerned EEs were being instructed to restrict the expenditure within the permissible limit or to prepare revised estimates for administrative approval.

3.1.12.5 Deviation from sanctioned estimates

According to Rule 246 of MFR, 1981, revised administrative approval is to be obtained if the original proposals are materially departed, even if there is no increase in cost. Scrutiny of payment vouchers and measurement books in respect of 37 works under execution by the selected 12 road divisions of selected districts revealed that in respect of 20 works, different items of work were executed either in excess of the estimated provision or without estimated provisions. This resulted in excess expenditure of ₹ 11.43 crore, details of which are detailed in **Appendix 3.1**. In all these cases, revised administrative approval for deviation from the sanctioned estimate was not obtained and thus, the action of the EEs concerned was unauthorised.

The CE(R) stated (November 2011) that the concerned EEs were being asked to submit necessary revised detailed estimates.

3.1.13 Quality Control

Existence of an effective quality control mechanism in the R&B Wing is of paramount importance with a view to ensure quality of inputs used in the works to achieve high degree of quality. An efficient quality control mechanism would not only ensure durability of the created assets but also enable such assets withstand expected distress and the usual vagaries of nature to survive the designed life period. It was, however, noticed in audit that quality control mechanism was almost non-existent in the R&B Wing as highlighted in the paragraphs below.

➢ According to Clause 903 of the Specifications for Road and Bridge Works published by the Indian Roads Congress, the material supplied and the works carried out by the contractor were to conform to the prescribed specifications. For ensuring the requisite quality of construction, the material and works were to be subjected to quality control tests.

There was one Road Research Laboratory (RRL) with the R&B Wing. The laboratory had equipment and facility for carrying out tests such as tests to determine California Bearing Ratio (CBR) of soils, aggregate impact value test and test to determine the quality of bitumen and cement, *etc.* But no tests of stone aggregates and bitumen used in different road and bridge works was conducted by any of the selected 12 road divisions, except test of stone aggregates used in one work (Shillong-Cherra Road) by Sohra Division. The EEs of the divisions stated (April-June 2011) that as the aggregates were taken from the approved quarry, no test was undertaken. However, test report of approved quarry, though called for (May-July 2011) from the CE(R) and EEs, was not furnished. As regards bitumen, the EE, Shillong Central Division stated (June 2011) that since the bitumen was directly procured from the manufacturer, no test was undertaken. The contention of the EE was not acceptable because the bitumen procured from the manufacturer did not come with a quality assurance certificate and as such, the quality of the same could not be ensured. The CE(R) stated (November 2011) that the EEs had been asked to conduct necessary tests of the stone aggregates before utilising in the works and that henceforth, test reports and quality assurance certificates would be obtained from the manufacturer of bitumen.

➢ Tests to determine CBR of soil in respect of 11 works executed by five[14] out of 12 road divisions were carried out. But such tests for the works executed by the remaining seven divisions of the selected districts were never carried out although facilities for carrying out such tests were available in the laboratory. The CE(R) stated (November 2011) that CBR tests were conducted for all road schemes. The reply was not acceptable as it was not supported by any documentary evidence.

➢ Sanction was accorded (March 2009) for one USA[15] make road scan system for sub-surface investigation, road inspection and analysis. But no action was initiated by the R&B Wing to obtain the system and the amount of ₹ 60 lakh meant for it was lying in deposit. The CE(R) stated (November 2011) that the members of the Purchase Board of PWD advised to ascertain the performance of the system before procurement and also to verify its cost from other State PWDs in the country having the system. But the performance and cost of the system could not be ascertained as no State PWD in the country was in possession of the same as reported by the firm. The reply was not acceptable because the performance and comparative costs should have been ascertained prior to sanction for purchase of the system.

[14] Sohra, Jowai North, Shillong South, Mawsynram and NEC Jowai Divisions.
[15] Geophysical Survey Systems, Inc, United State of America (USA)

Absence of quality tests as discussed in the above cases was indicative of the fact that the emphasis of the R&B Wing was more towards expenditure intensive works in the field and quality of the works carried out was a secondary issue.

3.1.14 Material Management

3.1.14.1 Stock/ Tools and Plant

➢ ***Discrepancies in stock***

There were huge discrepancies between ground balance and book balance of stock in respect of 11 out of 12 road divisions in the three selected districts, division-wise position of which is given below:

Table 3.12

(₹ in lakh)

Sl No	Name of Division	Reserve stock limit	Book balance as on 31 March 2011	Ground balance as 31 March 2011	Difference
1.	NH Bye Pass Shillong	15.00	33.87	1.28	32.59
2.	Jowai South	35.00	51.53	17.98	33.55
3.	Jowai North	18.00	149.04	20.71	128.33
4.	Shillong South	18.00	190.66	4.10	186.56
5.	Mawsynram	25.00	81.61	81.61	-
6.	Jowai Central	10.00	0.42	0.42	-
7.	Shillong Central	20.00	543.16	217.51	325.65
8.	Resubelpara	Nil	7.81	8.85	(-) 1.04
9.	Sohra Division	NA	44.52	15.47	29.05
10.	Jowai NEC	NA	4.10	4.09	0.01
11.	Williamnagar	NA	199.66	1.32	198.34
12.	NH Division, Shillong	NA	43.22	29.00	14.22
Total			**1349.60**	**402.34**	**947.26**

Source: Information furnished by the divisions concerned.

Against book balance of stock of ₹ 13.50 crore at the end of 2010-11, ground balance was ₹ 4.02 crore only. The discrepancies had not been reconciled by any of the divisions.

➢ ***Holding of excess stock***

As per Rule 204 of MFR, 1981 when it is considered necessary that a reserve of stock is to be maintained, the maximum limit is to be fixed by the CE(R). As can be seen from **Table 3.12** above, seven out of the selected 12 road divisions were holding stock in excess of the reserved stock limit. As regards the remaining five divisions, while no limit for the reserve stock was fixed for Resubelpara Division, in case of other four divisions (Serial 9 to 12 of **Table 3.12** above), information regarding reserve stock had not been furnished, though called for from the EEs concerned in May-June 2011. The CE(R) stated (November 2011) that the concerned divisions were being instructed to adjust their stock accounts.

➢ ***Physical verification of stock***

As per Rule 223 of MFR, 1981, it is mandatory for the Sub-Divisional Officer (SDO) to verify the stores in full once a year and for the Divisional Officer 10 *per cent* annually within three months previous to the date of submission of the stock returns. Out of the selected 12 road divisions in the three selected districts, physical verification of stores was conducted by the EE, Shillong Central Division and his subordinate the SDO, Stores in 2006-07, 2009-10 and 2010-11 and EE, NH Bye-Pass Division in 2006-07 and 2009-10. No such verification was conducted by the EEs and SDOs of other divisions of the selected districts during 2006-11. The CE(R) stated (November 2011) that all the EEs were being instructed to follow the provisions of the MFR.

3.1.14.2 Road rollers

Every PWD division has a fleet of road rollers for construction, repair and maintenance of roads. However, no system for monitoring the usage of road rollers has been laid down. In 11[16] out of 12 road divisions in the three selected districts, the under-utilisation of road rollers ranged between 81 *per cent* and 87 *per cent* during 2006-11 as shown below:

Table 3.13

Year	Road rollers in working condition	Working days during the year (240 x Column 2)	Number of days road rollers utilised	Number of days in which road rollers not utilised (3-4)	Number of road rollers actually required (Column 4/240)	Idle road rollers
2006-07	132	31680	4556	27124 (87)	19	113
2007-08	125	30000	4392	25608 (85)	19	106
2008-09	126	30240	3992	26248 (87)	17	109
2009-10	126	30240	5622	24618 (81)	24	102
2010-11	130	31200	4451	26749 (85)	19	111

Source: Information furnished by the divisions concerned.

The CE(R) stated (November 2011) that full usage of road rollers could not be achieved due to limited working season, remoteness of the location of works, old age of the road rollers, *etc.* and the EEs were being instructed to increase the output of the road rollers and reduce the idle period.

3.1.15 Human Resources Management

Proper management and deployment of human capital is essential to ensure optimum work output and efficiency in implementation of projects. Human resource management was, however, a neglected area in the R&B Wing as evidenced by the following.

3.1.15.1 Manpower in regular establishment

The R&B Wing had not taken up any systematic and scientific management of its human resources. The requirement of manpower with different skill sets required for

[16] barring Williamnagar Division

running the various activities of the Wing was never analysed. The Wing had also not fixed any norms for deployment of manpower with reference to work-load/coverage of area of divisions/sub-divisions. The following issues were noticed in audit:

➢ The Accounts Officer (AO) is an important functionary in a division as he acts as the financial adviser to the EE, watches expenditure against the budgetary allocation, scrutinises the correctness of contractors' bills, compiles the divisional accounts, *etc*. But one of the divisions in the selected districts, *viz.*, Resubelpara Division, had been functioning without an AO since its inception in September 2006 though the average annual expenditure of this Division per year was ₹ 8.78 crore during 2006-11.

3.1.15.2 Muster Roll workers

According to the norms prescribed by the State Government (July 1989), EEs may engage five muster roll (MR) workers per month for maintenance and repair work of road length of eight kilometers. Government further stipulated that any officer violating the norm would be held responsible and any excess expenditure incurred on engagement of excess MR workers would be recovered from the pay of the officer concerned.

Audit scrutiny revealed that MR workers were engaged during 2006-11 in four[17] out of 12 road divisions in the three selected districts in excess of the norm, which resulted in extra expenditure of ₹ 1.99 crore. The details are given in **Appendix 3.2.** Reasons for engaging excess MR workers, though called for from the concerned EEs in September 2011, were not furnished. The R&B Wing had also not initiated any action against the defaulting EEs thereby violating the orders of the Government.

The CE(R) stated (November 2011) that the matter was being taken up with the defaulting EEs.

3.1.16 Internal Control Mechanism

Internal control provides reasonable assurance to the management that organisational objectives are achieved, financial interests and assets of the organisation safeguarded, regular feedback and reliable information on the functioning of the organisation is made available to the management so that mid-course correction and effective interventions can be made where called for. Internal auditors, as an independent entity, examine and evaluate the level of compliance with the departmental rules and procedures and provide independent assurance to the management on the adequacy or otherwise of the existing controls.

According to the CE(R), no internal audit mechanism existed in the R&B Wing. Thus, adequacy and effectiveness of accounting and internal control systems of the R&B Wing remained un-evaluated through an independent agency though 10 *per cent* of

[17] (i) NH Division, Shillong: 39 to 43 *per cent* excess labourers; (ii) Sohra Division: 19 to 23 *per cent* excess labourers; (iii) NH Bye-Pass Division: 9 *per cent* excess labourers; (iv) NEC Jowai: 1 to 18 *per cent* excess labourers

the State's total expenditure during 2006-11 was consumed by this wing during the period. Deficiencies noticed in audit in internal control mechanism of the Wing are discussed below.

3.1.16.1 Inspection

Inspection of divisions by the SE at least once in a year as required under Rule 477(6) of the MFR, 1981, was never carried out during 2006-11 in any of the divisions in the selected districts. Due to the failure of the SEs to carry out prescribed inspections the following shortcomings were persisting in the divisions. The CE(R) stated that the necessary instructions were being issued to the SEs for inspection of the divisional offices which were not inspected by them.

3.1.16.2 Checking of Measurement Book

Measurement Book (MB) is a very important record, since it is the basis of all accounts of quantities of works executed and paid for, whether done by MR workers or by contract. Frequent and adequate check of the MB by the SDO and EE is mandatory as per Rule 300 of MFR, 1981. But check measurement[18] was never done by EEs/SDOs of the divisions of the selected districts during 2006-11. The CE(R) stated (November 2011) that the check measurements of MBs were normally done by the EEs and the EEs and SDOs were being reminded for regular check measurements.

3.1.16.3 Non-reconciliation of Forms 50-51

Forms 50 and 51 are prescribed for use by all PWD divisions and required to be submitted by the divisions along with their monthly accounts to the Accountant General (AG). Form 50 is a statement of cash remitted into the treasury and acknowledged by the treasury. Form 51 is a statement of cheques issued to the treasury and paid by the treasury. Both these statements are required to be reconciled by the concerned division with the treasury before their submission along with the monthly accounts to the AG. The purpose of these forms is to detect/prevent any possible misappropriation. Scrutiny revealed that nine out of 14[19] divisions did not reconcile Forms 50 and 51 with the treasuries in time nor were they submitted the monthly accounts to the AG. The delay in reconciliation with the treasuries and their subsequent submission individually to the AG ranged between one and five months. The CE(R) agreed (November 2011) to make efforts for timely reconciliation of Forms 50 and 51.

3.1.16.4 Lapsed deposits

As per Rule 120 of MFR, 1981 security deposits lying unclaimed for more than three years are to be treated as lapsed deposit and credited to Government account. Scrutiny revealed that in ten out of 12 road divisions in the selected districts a total amount of ₹ 1.83 crore, being contractors security deposit relating to 2,630 items, was lying

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[18] Check measurement is the cross verification by EE/SDO of the MBs with the bills preferred by the contractors

[19] 12 road divisions + 2 mechanical divisions in the three selected districts

unclaimed/unsettled for periods ranging from three to 22 years. Details are given below:

Table 3.14

Sl No	Name of Division	Number of items	Amount (₹ in lakh)	Outstanding balance (ranged between)
1	Williamnagar	306	17.98	3/91 – 3/08
2	Resubelpara	62	5.65	6/06 – 3/08
3	NH Division	124	7.82	12/99 – 12/07
4	Shillong South	68	1.22	3/00 – 3/07
5	NH Bye Pass	457	26.44	3/94 – 3/08
6	Shillong Central	133	6.36	3/00 – 12/07
7	Jowai South	124	4.81	6/98 – 3/07
8	NEC Jowai	371	91.40	3/00 – 3/08
9	Jowai Central	137	5.76	3/89 – 12/07
10	Jowai North	848	15.68	2/91 – 3/08
	Total	**2630**	**183.12**	**3/89 to 3/08**

Source: Information furnished by the divisions concerned.

The CE(R) stated (November 2011) that EEs were being instructed to inform the concerned contractors about their unclaimed security deposits and to finalise/release the same within a very short time, failing which the deposit would be treated as lapsed. The CE's action was, however, contrary to Rule 120 of MFR, 1981.

3.1.16.5 Delay in deposit of revenue

According to Rule 7(1) of Meghalaya Treasury Rules, 1985, all moneys received by or tendered to Government officers on account of the revenues of the State is to be paid in full into treasury without undue delay. However, as of March 2011, forest royalty of ₹ 1.29 crore and VAT of ₹ 1.77 crore deducted from contractors/ suppliers bills during 2010-11 remained un-deposited with eight divisions, details of which are given below:

Table 3.15

(₹ in lakh)

Sl. No.	Divisions	Forest Royalty not deposited as on 31 March 2011	VAT not deposited as on 31 March 2011		
			On Works	On Forest Royalty	Total
1.	Shillong Central	0.02	4.19	0.27	4.46
2.	Jowai Central	85.63	88.50	0	88.50
3.	Jowai North	18.20	28.72	1.82	30.54
4.	Jowai South	1.18	4.06	0.15	4.21
5.	Williamnagar	14.71	24.69	0	24.69
6.	Resubelpara	3.96	16.40	0	16.40
7.	SE (Mechanical), Jowai	0	8.34	0	8.34
8.	NH Bye-Pass	5.07	0	0	0
	Total	**128.77**	**174.90**	**2.24**	**177.14**

Source: Information furnished by the divisions concerned.

The CE(R) stated (November 2011) that the defaulting divisions were being instructed to deposit the forest royalty and VAT to Government account forthwith.

3.1.17 Monitoring and Evaluation

The efficiency and effectiveness of any department as well as the successful execution of projects is critically dependent on the existence of a robust monitoring and evaluation mechanism within the department to ensure that the achievement of the departmental programme/objectives are periodically monitored and evaluated against predetermined physical/financial targets, timeliness, *etc*.

It was observed that except for submission of quarterly progress reports by the R&B divisions to the CE(R), no other monitoring mechanism was in existence in the R&B Wing. Audit analysed the timeliness of submission of QPRs of the fourth quarters of the period under review and it was observed that there was delay in submission of QPRs by all the divisions in the three selected districts ranging from one to three months. The utility of the QPRs as a monitoring tool was also questionable as there was no scope in the format of the QPRs to indicate the position about date of commencement and stipulated date of completion of the projects.

Though the R&B Wing was responsible for execution of enormous road and bridge projects of the State, no mechanism was in existence in the Wing for overall impact evaluation of the completed projects. As such, the impact of projects executed by the R&B Wing remained unassessed.

During exit conference, the Secretary, PWD accepted the need for improvement of monitoring mechanism and also agreed to analyse the impact on sustainability and utility of roads executed in different areas.

3.1.18 Conclusion

The R&B Wing of the PWD had made considerable achievement and has added 6,769.56 km length of road since creation of the State. This represents an increase of 143 *per cent* in road length in the State over the period. The R&B Wing was yet to gear up its functioning to efficiently discharge its mandate. The absence of any perspective planning or long term master-plan led to wasteful/unproductive expenditure, non-completion of sanctioned projects and pre-closing/de-sanctioning of projects. Works were sanctioned/ taken up despite non-availability of funds. Past liabilities could not be cleared in the one hand while on the other, new projects were being sanctioned every year. Competitiveness in the bidding process was rare despite the large number of contractors registered with the R&B Wing. Monitoring and internal control mechanisms were weak. Quality control also was a neglected area. The impact of projects executed by the R&B Wing was not evaluated.

3.1.19 Recommendations

- **State Road policy and a master plan for the entire State should be formulated at the earliest.**
- **The R&B Wing should focus on completing ongoing projects on priority basis before taking up new projects.**
- **The R&B Wing should apprise the Government about the ill-effects of unrestrained sanction of new projects and the consequent liabilities which the wing finds difficult to discharge due to a chronic shortage of funds.**
- **The process of preparation of estimates should be more rigorous to avoid change of scope of work, revision of estimates and consequent delay in completion of works.**
- **Quality control and regular quality checks of projects under execution should be strengthened.**
- **Internal control and monitoring mechanisms should be strengthened.**

The matter was reported to the PWD, Government of Meghalaya in September 2011; reply had not been received (December 2011).

CHAPTER IV – GOVERNMENT COMMERCIAL AND TRADING ACTIVITIES

4.1 Overview of State Public Sector Undertaking

Executive Summary

Audit of Government companies is governed by Section 619 of the Companies Act, 1956. The accounts of Government companies are audited by Statutory Auditors appointed by Comptroller and Auditor General of India (CAG).These accounts are also subject to supplementary audit conducted by CAG. Audit of Statutory corporations is governed by their respective legislations. As on 31 March 2011, the State of Meghalaya had 11 working Public Sector Undertakings (PSUs) (Nine companies and two Statutory corporations) and two non-working companies, which employed 4989 employees. The working PSUs registered a turnover of ₹457.06 crore for 2010-11 as per their latest finalised accounts as of September 2011. This turnover was equal to 3.03 per cent of State Gross Domestic Product indicating a moderate role played by State PSUs in the economy. However, the State working PSUs incurred an overall loss of ₹96.96 crore in the aggregate for 2010-11 as per their latest finalised accounts as on 30 September 2011.

Investments in PSUs

As on 31 March 2011, of the total investment in State PSUs, 99.65 per cent was in working PSUs and the remaining 0.35 per cent in two non-working PSU. This total investment consisted of 28.72 per cent towards capital and 71.28 per cent in long-term loans. The investment has increased by over 76.69 per cent from ₹896.80 crore in 2005-06 to ₹1584.53 crore in 2010-11.

Performance of PSUs

During the year 2010-11, out of 11 working PSUs, one PSU namely Meghalaya Government Construction Corporation Limited earned profit of ₹0.87 crore and remaining ten PSUs incurred loss of ₹97.83 crore. The major losses were incurred by Meghalaya Industrial Development Corporation Limited (₹25.07 crore), Mawmluh Cherra Cements Limite (₹12.54 crore) and Meghalaya State Electricity Board (₹56.42 crore). The losses of working PSUs were mainly attributable to deficiencies in financial management, planning, implementation of projects, operations and monitoring. A review of latest Audit Reports of CAG shows that the State PSUs incurred losses to the tune of ₹66.43 crore and infructuous investment of ₹6.66 crore which were controllable with better management. Thus, there is tremendous scope to improve the functioning of PSUs and minimise losses.

Quality of accounts

The quality of accounts of PSUs needs improvement. All the 15 accounts finalised by working PSUs during October 2010 to September 2011 *received qualified certificates. There were 12 instances of non-compliance with Accounting Standards. Reports of Statutory Auditors on internal control of the companies indicated certain weak areas.*

Arrears in accounts

Ten PSUs had arrears of 51 accounts as of September 2011. The PSUs need to set targets for the work relating to preparation of accounts with special focus on arrears. There were two non-working companies as on 31 March 2011. While one non-working company has already been struck off from the records of the Registrar of Companies on 24 June 2011, the other company had not commenced the liquidation process. As no purpose was served by keeping this non-working company in existence, Government needs to expedite closure of this company

4.1.1 Introduction

The State Public Sector Undertakings (PSUs) consist of State Government Companies and Statutory Corporations. The State PSUs are mandated to carry out activities of commercial nature while keeping in view the welfare of people. In Meghalaya, the State PSUs occupy a modest position in the State economy. The State working PSUs registered a turnover[1] of ₹ 457.06 crore for 2010-11 as per their latest finalised accounts as of September 2011. This turnover was equal to 3.03 *per cent* of State Gross Domestic Product (GDP) for 2010-11. The State working PSUs incurred an overall loss of ₹ 96.96[2] crore in the aggregate for 2010-11 as per their latest finalised accounts as on 30 September 2011. They had employed 4,989 employees as of 31 March 2011.

As on 31 March 2011, there were 13[3] PSUs as per details given below. Of these, no company was listed on the stock exchange(s).

[1] Including the turnover figure (₹ 415.74 crore) of erstwhile Meghalaya State Electricity Board (MeSEB), which ceased to exist with effect from 1 April 2010 but included in Appendix 4.2 (Sl. B-1) so as to present correct picture of overall financial results of the State PSUs.

[2] Including the loss figures (₹ 56.42 crore) of erstwhile Meghalaya State Electricity Board (MeSEB), which ceased to exist with effect from 1 April 2010 but included in Appendix 4.2 (Sl. B-1) so as to present correct picture of overall financial results of the State PSUs.

[3] excluding Meghalaya Watches Ltd. which has been de-registered from the Registrar of Companies with effect from 6 July 2010

Table 4.1.1

Type of PSUs	Working PSUs	Non-working PSUs[4]	Total
Government Companies[5]	9	2[6]	11
Statutory Corporations	2	-	2
Total	**11**	**2**	**13**

4.1.2 Audit Mandate

Audit of Government companies is governed by Section 619 of the Companies Act, 1956. According to Section 617, a Government company is one in which not less than 51 *per cent* of the paid up capital is held by Government(s). A Government company includes a subsidiary of a Government company. Further, a company in which not less than 51 *per cent* of the paid up capital is held in any combination by Government(s), Government companies and Corporations controlled by Government(s) is treated as if it were a Government company (deemed Government company) as per Section 619-B of the Companies Act.

The accounts of the State Government companies (as defined in Section 617 of the Companies Act, 1956) are audited by Statutory Auditors, who are appointed by the Comptroller and Auditor General of India (CAG) as per the provisions of Section 619(2) of the Companies Act, 1956. These accounts are also subject to supplementary audit conducted by CAG as per the provisions of Section 619 of the Companies Act, 1956.

Audit of Statutory corporations is governed by their respective legislations. Out of two Statutory corporations, CAG is the sole auditor for Meghalaya Transport Corporation. In respect of Meghalaya State Warehousing Corporation, the audit is conducted by Chartered Accountants and supplementary audit by CAG.

4.1.3 Investment in State PSUs

As on 31 March 2011, the investment (capital and long-term loans) in 13 PSUs was ₹ 1,584.53 crore as per details given below:

Table 4.1.2

(₹ in crore)

Type of PSUs	Government Companies			Statutory Corporations			Grand Total
	Capital	Long Term Loans	Total	Capital	Long Term Loans	Total	
Working PSUs	371.54	1,129.38	1,500.92	78.14	-	78.14	1,579.06
Non-working PSUs	5.47	-	5.47	-	-	-	5.47
Total	**377.01**	**1,129.38**	**1,506.39**	**78.14**	**-**	**78.14**	**1,584.53**

[4] Non-working PSUs are those which have ceased to carry on their operations. It includes one 619-B Company namely Meghalaya Electronics Development Corporation Limited.

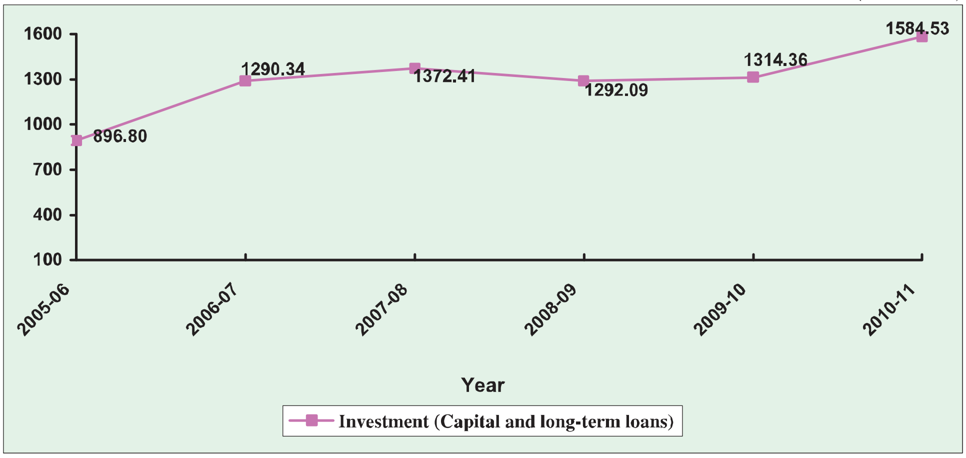
[5] Including Meghalaya Energy Corporation Limited (MeECL) incorporated (14 September 2009) in place of erstwhile Meghalaya State Electricity Board (MeSEB), which ceased to exist (01 April 2010).

[6] Including one non-working company (*viz.* Meghalaya Phyto Chemicals Limited), name of which has been struck off from the records of the Registrar of Companies on 24 June 2011, and hence, it ceased to exist from that date.

A summarised position of Government investment in State PSUs is detailed in **Appendix 4.1.**

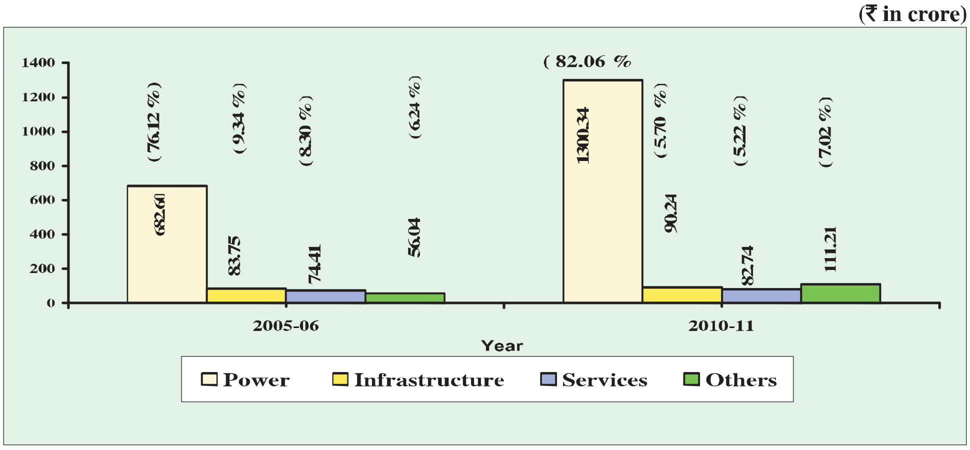
As on 31 March 2011, of the total investment in State PSUs, 99.65 *per cent* was in working PSUs and the remaining 0.35 *per cent* in two non-working PSUs. This total investment consisted of 28.72 *per cent* towards capital and 71.28 *per cent* in long-term loans. The investment has increased by 76.69 *per cent* from ₹ 896.80 crore in 2005-06 to ₹ 1,584.53 crore in 2010-11 as shown in the graph below:

(₹ in crore)



The investment in various important sectors and percentage thereof at the end of 31 March 2006 and 31 March 2011 are indicated below in the bar chart. The thrust of PSU investment in the State was mainly in Power Sector during the five years which has seen its percentage share rising from 76.12 *per cent* in 2005-06 to 82.06 *per cent* in 2010-11.

(₹ in crore)



(Figures in brackets show the percentage of total investment)

4.1.4 Budgetary outgo, grants/subsidies, guarantees and loans

The details regarding budgetary outgo towards equity, loans, grants/subsidies, guarantees issued, loans written off, loans converted into equity and interest waived off in respect of State PSUs are given in **Appendix 4.3.** The summarised details are given below for three years ended 2010-11:

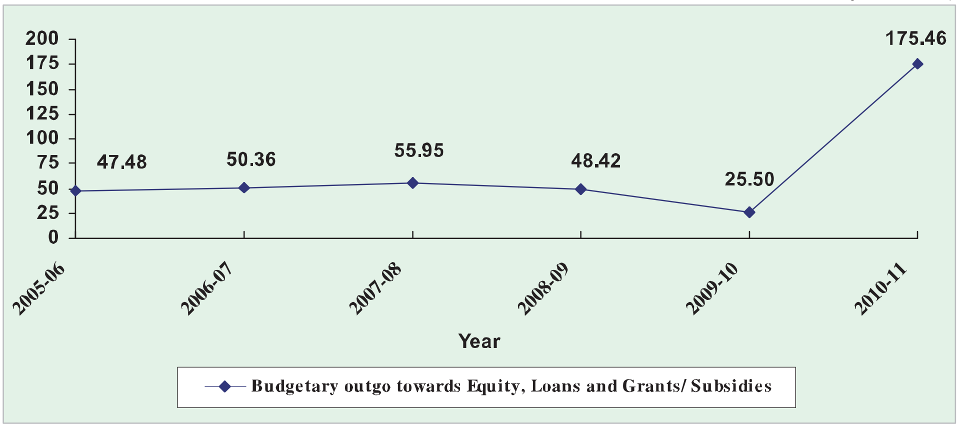
Table 4.1.3

(₹ in crore)

Sl. No.	Particulars	2008-09		2009-10		2010-11	
		No. of PSUs	Amount	No. of PSUs	Amount	No. of PSUs	Amount
1.	Equity(E) Capital outgo from budget	5	18.20	4	16.45	5	15.99
2.	Loans given from budget	1	11.04	-	-	1	23.44
3.	Grants(G)/Subsidy(S) received[7]	6	19.18	5	9.05	3(G) 2(S)	131.47(G) 4.56(S)
	Total Outgo[8] (1+2+3)	**10**	**48.42**	**7**	**25.50**	**9**	**175.46**
4.	Loans converted into equity	-	-	-	-	-	-
5.	Guarantees issued	1	150.49	1	116.88	1	31.77
6.	Guarantee Commitment	3	607.24	3	653.33	2	646.51

The details regarding budgetary outgo towards equity, loans and grants/subsidies for past six years are given in a graph below:

(₹ in crore)



The budgetary outgo during 2010-11 was all time high at ₹ 175.46 crore in the past six years. This was mainly due to extension of budgetary support of ₹ 153.89 crore to Meghalaya Energy Corporation Limited in the form of loans (₹ 23.44 crore) and grants (₹ 130.45 crore).

[7] Includes grants and subsidies provided through State Government Budget only.
[8] Depicts actual number of PSUs which received Equity, loans, grants/subsidies out of budget.

The guarantee commitment by the State Government against the borrowings of State PSUs was increased from ₹ 607.24 crore (2008-09) to ₹ 653.33 crore (2009-10) and declined marginally to ₹ 646.51 crore in 2010-11. Fresh guarantees of ₹ 31.77 crore was issued by the State Government during 2010-11 to one PSU (the MeECL).

4.1.5 Reconciliation with Finance Accounts

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 at 31 March 2011 is stated below:

Table 4.1.4

(₹ in crore)

Outstanding in respect of	Amount as per Finance Accounts	Amount as per records of PSUs	Difference
Equity	248.57[9]	440.72[10]	(-)192.15
Loans	Not available[11]	202.78	-
Guarantees including interest	1102.46	1102.46[12]	-

Audit observed that the differences occurred in equity in respect of six PSUs and four PSUs[13] has persistent differences pending reconciliation since 2007-08. Though the Principal Secretary, Finance Department, Government of Meghalaya as well as the PSUs concerned were apprised by Audit about the differences from time to time stressing upon the need for reconciliation, no significant progress was noticed in this regard. The Government and the PSUs should take concrete steps to reconcile the differences in a time-bound manner.

4.1.6 Performance of PSUs

The financial results of PSUs, financial position and working results of working Statutory corporations are detailed in **Appendix 4.2, 4.5** and **4.6** respectively. 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 the period 2005-06 to 2010-11:

[9] Includes ₹ 2.14 crore in MSWC, ₹ 68.97 crore in MTC, ₹ 89.00 crore in MIDC, ₹ 72.72 crore in MCCL, ₹ 2.32 crore in MMDC, ₹ 1.97 crore in FDCM, ₹ 0.75 crore in MGCCL, ₹ 7.96 crore in MTDC and ₹ 2.74 crore in MH&HDC.

[10] Includes ₹ 2.14 crore in MSWC, ₹ 67.97 crore in MTC, ₹ 202.00 crore in MeECL, ₹ 89.49 crore in MIDC, ₹ 63.11 crore in MCCL, ₹ 2.32 crore in MMDC, ₹ 1.77 crore in FDCM, ₹ 0.75 crore in MGCCL, ₹ 7.96 crore in MTDC and ₹ 3.21 crore in MH&HDC (As per details furnished by the Management).

[11] State Government's loans to State PSUs are extended through the Government Departments. These Government Departments reallocate the loan funds to different PSUs. Hence, the PSU-wise figures of State Government loans are not available in the Finance Accounts.

[12] Guarantee commitment given by the State Government against loans were ₹ 1,101.46 crore (Principal= ₹ 645.51 crore and interest = ₹ 455.95 crore) for MeECL and ₹ 1.00 crore for MGCCL.

[13] Serial A-1, A-5, A-9 and B-1 of Appendix 4.2.

Table 4.1.4

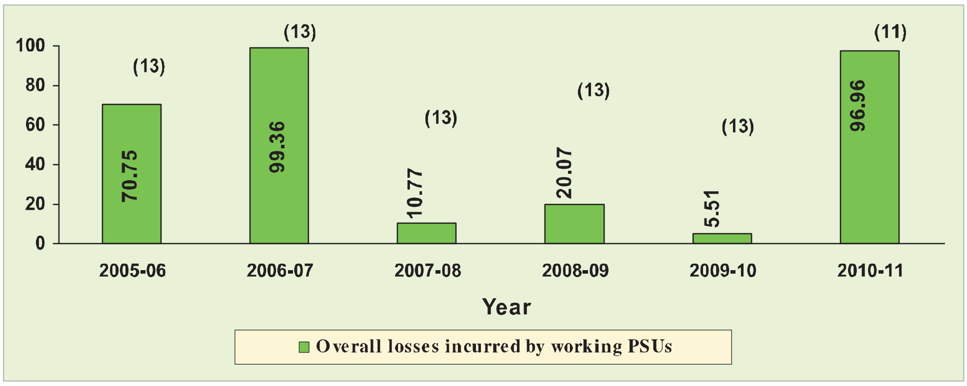
(₹ in crore)

Particulars	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Turnover	300.64	278.18	365.47	386.20	440.72	457.06 [14]
State GDP[15]	7265.15	8625.18	9734.73	11617.04	13216.47	15077.57
Percentage of turnover to State GDP	4.14	3.23	3.75	3.32	3.33	3.03

It can be seen from the above that during six years period ending 2010-11, the percentage of turnover to State GDP had declined from 4.14 *per cent* (2005-06) to 3.03 *per cent* (2010-11) indicating that the turnover of PSUs did not increase proportionately with the rise in the State's GDP.

Losses incurred by State working PSUs during 2005-06 to 2010-11 are given below in a bar chart.

(₹ in crore)



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

During 2005-11, the State working PSUs incurred losses every year. The overall losses incurred by working PSUs were an all time high during 2006-07 (₹ 99.36 crore), which reduced significantly to ₹ 5.51 crore during 2009-10. However, during 2010-11, the losses had sharply increased to ₹ 96.96 crore mainly due to registering of huge losses of ₹ 81.49 crore by two PSUs[16] against the aggregate profits of ₹ 9.85 crore earned during last year. During the year 2010-11, out of 11 working PSUs, one PSU[17] earned profit of ₹ 0.87 crore while remaining ten PSUs incurred loss of ₹ 97.83 crore[18]. The major losses were incurred by Meghalaya Industrial Development

[14] Turnover as per the latest finalised accounts as of September 30, 2011. It included the turnover figure (₹ 415.74 crore) of erstwhile Meghalaya State Electricity Board (MeSEB), which ceased to exist with effect from 01 April 2010 but included in Appendix 4.2 (serial B-1) so as to present correct picture of overall financial results of the State PSUs.

[15] The Gross Domestic Product of Meghalaya at current prices as furnished by Government of Meghalaya, Directorate of Economics and Statistics vide EST.5/2011/Addl.1/3 dated 08.09.2011.

[16] Serial A-3 and B-1 of Appendix 4.2

[17] Serial A-4 of Appendix 4.2

[18] including the loss figure (₹ 56.42 crore) of erstwhile Meghalaya State Electricity Board (MeSEB), which ceased to exist with effect from 1 April 2010 but included in Appendix 4.2 (serial B-1) so as to present correct picture of overall financial results of the State PSUs.

Corporation Limited (₹ 25.07 crore), Mawmluh Cherra Cements Limited (₹ 12.54 crore) and Meghalaya State Electricity Board (₹ 56.42 crore).

The losses of working PSUs were mainly attributable to deficiencies in financial management, planning, implementation of projects, operations and monitoring. A review of the latest Audit Reports of CAG show that the State PSUs incurred losses to the tune of ₹ 66.43 crore and infructuous investment of ₹ 6.66 crore which were controllable with better management. Year wise details from Audit Reports are stated below:

Table 4.1.5

(₹ in crore)

Particulars	2008-09	2009-10	2010-11	Total
Net Loss	20.07	5.51	96.96	122.54
Controllable losses as per CAG's Audit Report	1.20	17.17	48.06	66.43
Infructuous Investment	5.26	1.40	-	6.66

The above losses pointed out by Audit Reports of CAG are based on test check of records of PSUs. The actual controllable losses would be much more. The above table shows that with better management, the losses could be minimised substantially. The PSUs can discharge their role efficiently only if they are financially self-reliant. The above situation points towards a need for professionalism and accountability in the functioning of PSUs.

Some other key parameters pertaining to State PSUs are given below.

Table 4.1.6

(₹ in crore)

Particulars	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Return on Capital Employed (*Per cent*)	-	-	2.93	1.87	2.26	-
Debt	512.92	892.37	968.28	864.76	872.19	1129.38
Turnover[19]	300.64	278.18	365.47	386.20	440.72	457.06[20]
Debt/ Turnover Ratio	1.71:1	3.21:1	2.65:1	2.24:1	1.98:1	2.47:1
Interest Payments	51.38	32.11	38.08	37.69	43.76	42.35
Accumulated Losses	403.34	508.72	524.13	518.36	515.89	620.74[21]

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

The State Government had not formulated any dividend policy for payment of any minimum return by PSUs on the paid up share capital contributed by the State Government. As per their latest finalised accounts, one PSU earned an aggregate profit of ₹ 0.87 crore but did not declare dividend.

[19] Turnover as per the latest finalised accounts as of 30 September 2011.

[20] including the turnover figure (₹ 415.74 crore) of erstwhile Meghalaya State Electricity Board (MeSEB), which ceased to exist with effect from 1 April 2010 but included in Appendix 4.2 (serial B-1) so as to present correct picture of overall financial results of the State PSUs.

[21] Including accumulated losses of two non-working PSUs (Sl C-1 & C-2 of Appendix 4.2) and accumulated loss of ₹ 449.03 crore of erstwhile Meghalaya State Electricity Board (MeSEB), which ceased to exist with effect from 1 April 2010 but included in Appendix 4.2 (serial B-1) so as to present correct picture of overall financial results of the State PSUs.

4.1.7 Arrears in finalisation of accounts

The accounts of the companies for every financial year are required to be finalised within six months from the end of the relevant financial year under Sections 166, 210, 230, 619 and 619-B of the Companies Act, 1956. Similarly, in case of Statutory corporations, their accounts are finalised, audited and presented to the Legislature as per the provisions of their respective Acts. The table below provides the details of progress made by working PSUs in finalising their accounts by September 2011.

Table 4.1.7

Sl. No.	Particulars	2006-07	2007-08	2008-09	2009-10	2010-11
1.	Number of Working PSUs	13	13	13	13	11[22]
2.	Number of accounts finalised during the year	11	13	12	10	15
3.	Number of accounts in arrears	60	60	61	64	51
4.	Average arrears *per* PSU (3/1)	4.61	4.61	4.69	4.92	4.64
5.	Number of Working PSUs with arrears in accounts	12	12	13	13	10
6.	Extent of arrears	1 to 15 years	1 to 15 years	1 to 15 years	1 to 15 years	1 to 16 years

It can be seen from the above that the quantum of arrears in accounts and the average arrear per PSU remained high showing an increasing trend during all the years except during 2010-11 when arrear position was improved due to transfer of one company with nine accounts in arrears to defunct category (C-1 of **Appendix 4.2**).

The State Government had invested ₹ 206.83 crore (Equity: ₹ 35.76 crore, Loan: ₹ 23.44 crore, Grants: ₹ 136.86 crore and Subsidy: ₹ 10.77 crore) in eight PSUs during the years for which accounts have not been finalised as detailed in **Appendix 4.4.** Delay in finalisation of accounts of these PSUs may result in risk of fraud and leakage of public money apart from violation of the provisions of the Companies Act, 1956.

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 the prescribed period. Though the attention of the concerned administrative departments and officials of the Government on the issue of the arrears in finalisation of accounts was regularly drawn by the Principal Accountant General on quarterly basis, no remedial measures were taken. As a result of this, the net-worth of these PSUs could not be assessed in audit. The matter of arrears in accounts was also taken up with the Chief Secretary/Principal Secretary, Finance Department in the form of quarterly demi-official letters to expedite the backlog of arrears in accounts in a time bound manner.

[22] Excluding one company (Meghalaya Electronics Development Corporation Limited) which became non-working during 2010-11 with nine accounts in arrears. Further, a new company (serial A-8 of Appendix 4.2) incorporated on 14 September 2009 has been included. The Company has two years accounts (2009-10 and 2010-11) in arrears as it did not finalise its first accounts as on 30 September 2011.

In view of the above state of arrears, it is 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.**

4.1.8 Winding up of non-working PSUs

There were two non-working PSUs (both companies) as on 31 March 2011. Of these two non-working PSUs, one PSU[23] had not commenced the liquidation process as all the employees of the Company who had opted for VRS in December 2006, were awaiting full settlement of VRS compensation. The name of the other non-working PSU (*viz*. Meghalaya Phyto Chemicals Limited) has already been struck off from the records of the Registrar of Companies on 24 June 2011 and as such, it ceased to exist from that date.

The non-working PSU (serial C-1 of **Appendix 4.2**) is also required to be closed down as its existence is not going to serve any purpose.

4.1.9 Accounts Comments and Internal Audit

Eight companies forwarded fourteen[24] audited accounts to Principal Accountant General (Audit) during the year 2010-11. Of these, seven accounts of five companies were selected for supplementary audit and seven accounts were issued non review certificate. The accounts of Mawmluh Cherra Cements Limited for 2010-11 was received on 29th September, 2011 and Supplementary audit was in progress (October, 2011). 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 4.1.8

(₹ in crore)

Sl. No.	Particulars	2008-09		2009-10		2010-11	
		Number of accounts	Amount	Number of accounts	Amount	Number of accounts	Amount
1.	Decrease in profit	-	-	-	-	1[25]	21.06
2.	Increase in loss	1	0.47	-	-	4	1.80
3.	Non-disclosure of material facts	1	1.94	1	0.21	2	6.51
4.	Errors of classification	-	-	-	-	3	0.86

[23] Meghalaya Electronics Development Corporation Limited.

[24] Including one year accounts of one Non-working company namely Meghalaya Electronics Development Corporation Limited.

[25] Accounts of Meghalaya Industrial Development Corporation Limited for 2003-04.

It can be seen from the above that one company had impact of comments under '*decrease in profit*' category of ₹ 21.06 crore during 2010-11.

During the year, the Statutory auditors had given qualified certificates to all the fourteen accounts. The compliance of companies with the Accounting Standards remained poor as there were twelve instances of non-compliance in fourteen accounts during the year.

Some of the important comments in respect of accounts of companies are stated below:

Mawmluh Cherra Cements Limited (2009-10)

- Capitalisation of repair charges has resulted in overstatement of fixed assets and understatement of loss for the year by ₹ 44.98 lakh.

Meghalaya Industrial Development Corporation Limited (2003-04)

- Non provision for loss against the amount of bridging loans given to the three subsidiary companies (Meghalaya Electronics Development Corporation Limited, Meghalaya Bamboo Chips Limited and Meghalaya Watches Limited) that are not recoverable due to continuous losses and erosion of capital base of the Subsidiary Companies has resulted in overstatement of Current Assets, Loans and Advances and Profit (each by ₹ 20.56 crore).
- Non provisioning of interest accrued to SIDBI amounting to ₹ 49.83 lakh has resulted in overstatement of Profit with corresponding understatement of Current Liabilities by ₹ 49.83 lakh.

Forest Development Corporation of Meghalaya Limited (2000-01)

- The written down value of gassifire plant at the Saw Mill at Darugiri was ₹ 1.00 lakh only as on 31 March 2001 out of the total cost of ₹ 7.41 lakh. However, the Company has not reduced the value of the reserve representing the grant received (₹ 6.94 lakh) in proportion with the diminution in the value of the grant assets resulting in overstatement of Reserve and Surplus by ₹ 6.41 lakh with corresponding overstatement of Profit and Loss Account debit balance.
- The Capital Expenditure on Plantation Project includes ₹ 76.48 lakh being the expenditure incurred by the Company on Teak and Pine Plantations on private land taken on lease basis and the profit from the plantation will be shared in the ratio of 60:40 between the Company and land owners respectively on harvesting. The Company was not able to execute agreements in some cases with the land owners of the plantations due to disputes. The Company also noticed varying levels of illegal felling of trees in some of the plantations. The losses on account of illegal felling, loss accrued on the standing plantations and the contingent liability for cases of dispute where no agreement has been signed, have not been worked out and provided/disclosed in the Accounts.

Similarly, two working statutory corporations[26] forwarded their two accounts to Principal Accountant General during the year 2010-11. Out of the two Statutory Corporations, one was selected for sole audit by CAG and the second Statutory Corporation was selected for supplementary audit and both were completed. The audit reports of statutory auditors and the sole/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 CAG are given below:

Table 4.1.9

(₹ in crore)

Sl. No.	Particulars	2008-09		2009-10		2010-11	
		Number of accounts	Amount	Number of accounts	Amount	Number of accounts	Amount
1.	Decrease in profit	3	108.09	1	16.12	-	-
2.	Increase in loss	3	19.65	1	3.02	2	5.98
3.	Non-disclosure of material facts	1	4.91	-	-	2	16.71
4.	Errors of classification	1	4.19	-	-	1	0.76

It can be seen from the above that the average impact of comments per account under '*increase in loss*' category decreased to ₹ 2.99 crore during 2010-11 from ₹ 6.55 crore in 2008-09. Average money value of the non-disclosure of material facts was ₹ 8.36 crore as per audited account during 2010-11 as against ₹ 4.91 crore in 2008-09.

During the year, the two accounts of two Statutory corporations[27] received qualified certificates.

Some of the important comments in respect of accounts of statutory corporations are stated below:

Meghalaya State Electricity Board (2009-10)

- Non accountal of ₹ 1.45 crore being the loss suffered during the flood of October 2009 in Myntdu Leshka Hydro Electric Project (MLHEP) has resulted in overstatement of Net Fixed Assets and understatement of deficit for the year 2009-10 by ₹ 1.45 crore.
- Non-provision/write-off action against dues from permanently disconnected consumers (Net of Security Deposit forfeited) of ₹ 83.31 lakh which was lying in the accounts since 2004-05 has resulted in understatement of deficit and overstatement of Current Assets by ₹ 83.31 lakh.
- Liabilities did not include ₹ 1.28 crore being the amount payable to PTCIL[28] and PGCIL[29] towards purchase of power. This resulted in understatement of expenditure for purchase of power and deficit for the year by ₹ 1.28 crore.

[26] Including erstwhile Meghalaya State Electricity Board (MeSEB) ceased to exist w.e.f. 1 April 2010 and a new company, Meghalaya Energy Corporation Limited (MeECL) was formed in its place.
[27] Meghalaya State Electricity Board and Meghalaya State Warehousing Corporation Limited.
[28] Power Trading Corporation of India Limited.
[29] Power Grid Corporation of India Limited.

- Non accountal of ₹ 0.74 crore being the amount of insurance premium reimbursable for 2009-10 to contractor relating to construction of Myntdu Leshka Hydro Electric Project (MLHEP) which was admitted (March 2010) and paid by the Board in May 2010 resulted in understatement of other current liabilities and deficit for the year by ₹ 0.74 crore each.
- Non provision of ₹ 1.53 crore being the amount recommended by the Committee constituted for examining the claims (₹ 25.40 crore) of contractor for civil work of New Umtru Hydro Electric Project has resulted in understatement of Other Current Liabilities and Deficit for the year by ₹ 1.53 crore each.

Meghalaya State Warehousing Corporation (2009-10)

- Arrear pay of staff of the corporation of ₹ 5.05 lakh pertaining to the period prior to 2009-10 was wrongly adjusted against General Reserve without routing through Profit and Loss Account. This resulted in understatement of Establishment Expenses and Loss for the year by ₹ 5.05 lakh each.
- The Gratuity Fund Investment includes an amount of ₹ 3.21 lakh of gratuity fund kept in Savings Bank Account instead of investing in Fixed Deposit as per Rule 17 of the Meghalaya State Warehousing Corporation Rules, 1976. This should have been disclosed in the accounts.

The Statutory Auditors (Chartered Accountants) are required to furnish a detailed report upon various aspects including internal control/internal audit systems in the companies audited in accordance with the directions issued by the CAG to them under Section 619(3)(a) of the Companies Act, 1956 and to identify areas which needed improvement. An illustrative resume of major comments made by the Statutory Auditors on possible improvement in the internal audit/ internal control system and other areas in respect of eight companies[30] for the year 2009-10 and eight companies[31] for the year 2010-11 are given below:

Table 4.1.10

Sl. No.	Nature of comments made by Statutory Auditors	2009-10		2010-11	
		Number of companies where recommen-dations were made	Reference to serial number of the companies as per Appendix 4.2	Number of companies where recommen-dations were made	Reference to serial number of the companies as per Appendix 4.2
1.	Auditors Report & Comments/ Draft paras/Mini Reviews not discussed in Audit Committee	2	A-2, A-5	1	A-5
2.	Non prescribing of Maximum/ Minimum level of stock	1	A-1	4	A-1, A-2, A-5, A-8
3.	No ABC analysis adopted to control the inventory	5	A-1, A-2, A-5, A-7, C-1	4	A-1, A-2, A-5, A-8
4.	Inadequate scope of Internal Audit	3	A-1, A-5, C-1	1	A-5

[30] Sl. No. A-1, 2, 4, 5, 6, 7, 8 and C-1 in Appendix – 4.2
[31] Sl. No. A-1, 2, 3, 4, 5, 6, 8 and C-1 in Appendix – 4.2

Sl. No.	Nature of comments made by Statutory Auditors	2009-10		2010-11	
		Number of companies where recommen-dations were made	Reference to serial number of the companies as per Appendix 4.2	Number of companies where recommen-dations were made	Reference to serial number of the companies as per Appendix 4.2
5.	Absence of proper maintenance of Fixed Asset Register	5	A-1, A-2, A-4, A-8, C-1	6	A-1, A-3, A-5, A-6, A-8, C-1
6.	Inadequate credit policy	1	A-7	7	A-1, A-2, A-3, A-4, A-6, A-8, C-1
7.	Inadequate system of giving discount	1	A-7	2	A-8, A-2
8.	Inadequate system for timely recovery of outstanding dues	2	A-4, A-7	4	A-1, A-2, A-4, C-1
9.	No system of obtaining confirmation of balances from debtors	3	A-1, A-6, A-7	6	A-1, A-2, A-3, A-4, A-8, C-1

4.1.10 Recoveries at the instance of audit

During the course of propriety audit in 2010-11, recoveries of ₹ 3.54 crore were pointed out to the Management of various PSUs, of which, recoveries of ₹ 3.54 crore were admitted by PSUs and recoveries of ₹ 1.34 crore were effected.

4.1.11 Status of placement of Separate Audit Reports

The following table shows the status of placement of various Separate Audit Reports (SARs) issued by the CAG on the accounts of Statutory corporations in the Legislature by the Government.

Table 4.1.11

Sl. No.	Name of Statutory corporation	Year up to which SARs placed in Legislature	Year for which SARs not placed in Legislature		
			Year of SAR	Date of issue to the Government	Reasons for delay in placement in Legislature
1.	Meghalaya State Electricity Board[32]	2008-09	2009-10	1 July 2011	Under printing.

Delay in placement of SARs weakens the legislative control over Statutory corporations and dilutes the latter's financial accountability. The Government should ensure prompt placement of SARs in the legislature(s).

4.1.12 Disinvestment, Privatisation and Restructuring of PSUs

During the year 2010-11, no exercise was undertaken by the Government of Meghalaya for the Disinvestment, Privatisation and Restructuring of PSUs.

[32] The erstwhile Meghalaya State Electricity Board (MeSEB), which ceased to exist w.e.f. 1 April 2010 and a new company, Meghalaya Energy Corporation Limited (MeECL) was formed in its place.

PERFORMANCE AUDIT

POWER DEPARTMENT

4.2 Meghalaya Energy Corporation Limited

Executive Summary

In Meghalaya, distribution of power was carried out by the erstwhile Meghalaya State Electricity Board (MeSEB) which was corporatised on 01 April 2010 as Meghalaya Energy Corporation Limited (MeECL). The performance audit of distribution activities of MeECL was conducted for the period from 2006-07 to 2010-11 to assess whether aims and objectives of National Electricity Policy/ Plans (NEP) were adhered to and distribution reforms with regard to strengthening of distribution network through implementation of centrally sponsored schemes and other measures were achieved.

Financial Position and working Result

The accumulated losses of the MeECL which increased by 33.84 per cent during the performance audit period, from ₹403.78 crore in 2006-07 to ₹540.41 crore in 2010-11 had fully wiped out the paid up capital (₹ 202.00 crore). Despite revision in tariff on five occasions during 2006-11, the per unit loss increased by ₹ 0.39 from (-) ₹ 1.80 (2006-07) to (-) ₹ 2.19 (2009-10) due to increase in the cost per unit by ₹ 0.86 during said period.

Distribution Network Planning

The MeECL did not plan/set target for addition in the distribution network based on the anticipated growth in demand/ connected load during any of the five years covered in performance audit.

Rural Electrification

As on 31 March 2006, out of total 6026 villages in the State (as per 2001 Census), 3568 villages (59.21 per cent) were electrified. Under Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY), out of the total 6026 villages (including villages already electrified), the MeECL targeted to electrify/intensify total 5388 villages by January 2012 in lines with National Electricity Policy (NEP) and only 55.89 per cent of targeted villages were electrified during the period 2007-11. The planning of MeECL was deficient as the target fixed for 2007-11 were not linked on rational basis with the overall schedule of implementing RGGVY in the State. Further, MeECL failed to achieve even the lower target (2,149 villages) for 2007-11. As such, there is a distant ossibility that the MeECL will be able to provide access to electricity for all households by the year 2012 as envisaged under NEP. In implementation of RGGVY, several other deficiencies like, under utilisation of scheme funds, delayed completion of works, provision of excess capacity of transformers, high variation in the rates of material, etc were noticed. The Restructured Accelerated Power Development and Reforms Programme

(R-APDRP) meant to strengthen the distribution system and reduce AT&C losses was yet to be taken up for implementation even after lapse of more than three years of its launching in July 2008.

Aggregate Technical & Commercial Losses

Compared to the actual reduction of AT&C losses by 1.42 per cent from 41.90 (2006-07) to 40.48 (2010-11), the projection for reduction of AT&C losses by 14.75 per cent (36.80 in 2006-07 to 22.05 in 2010-11) during the years 2006-07 to 2010-11 was unrealistic. Value of energy losses in excess of limit allowed by MSERC amounted to ₹ 51.82 crore during the performance audit period. The reasons for high energy losses were attributed (November 2010) by the MeECL to inadequate maintenance of Distribution Transformers (DTRs), large number of un-metered connection, stopped/ defective meters, theft / pilferage of energy, non-installation of capacitor banks (CBs), etc.

Consumer metering

During performance audit period, against the growth of consumers by 17.45 per cent, percentage of metered consumers had increased from 30.57 to 63.01 per cent. Despite this, MeECL is still far behind the objective of attaining 100 per cent metering by 36.99 per cent.

Operational efficiency

The state remained largely dependent upon purchase of power though it had slightly decreased from 70.49 per cent (2006-07) to 68.98 per cent (2010-11) of total availability of power. There had been continuous power deficits as compared to the assessed demand as per the Electric Power Survey during the period 2006-07 to 2010-11 except for 2007-08 and the quantum of power deficits was increasing over the said years. Out of the total 1369 Distribution Transformers (DTRs) purchased during 2007-11, purchases to the extent of 577 DTRs (42 per cent) could have been avoided had the Work Centre, Sumer timely cleared the backlog of un-repaired DTRs existing as on 31 March 2011. The MTI & Vigilance activities were not commensurate with the number of consumers and the expenditure incurred for maintaining these divisions did not add value to the MeECL's performance.

Billing and Collection efficiency

Deficiencies in the billing system, such as non billing of consumers on regular basis, incorrect billing, non-disconnection of power of consumers running with low power factor, etc., were noticed. The collection activities of MeECL also had several shortcomings like, mounting arrears against electricity dues, huge recoveries pending against permanent disconnected consumers, non-disconnection of supply of defaulting consumers and consumers with heavy arrears, etc.

Subsidy Support and Cross Subsidisation

The outstanding against subsidy receivables from the State Government increased from ₹ 155.15 crore in 2006-07 to ₹ 254.74 crore in 2010-11. As the financial position of the MeECL was not very sound, the viability of the MeECL was heavily dependent on the Government support. The target of bringing the tariff of all the category of consumers within plus or minus 20 per cent of Average Cost of Supply (ACOS) by the year 2010-11 as envisaged in the

National Tariff Policy was not achieved by MeECL.

Energy Conservation

The MeECL was yet to consider and implement vigorously energy conservation measures and was yet to take up energy audit.

Monitoring by top Management

A rigorous MIS is an essential pre-requisite for a successful commercial organisation. The MeECL did not have proper MIS in place for exercising effective control over its activities by top management.

Conclusion

The distribution reforms envisaged under National Electricity Policy/Plans were not fully achieved by MeECL. The increase in the distribution capacity was not commensurate with the pace of growth in demand leading to network overloading with resultant frequent tripping of system and adverse voltage regulation. MeECL failed to complete the power projects in time leading to high dependence on outside power purchase resulting high cost of power.

The implementation of the centrally sponsored schemes for rural electrification (RGGVY) and strengthening the distribution network (R-APDRP) was not efficient and effective. While the implementation of RGGVY had several deficiencies like, under utilisation of scheme funds, delayed completion of works, provision of excess capacity of transformers, etc., R-APDRP was yet to be taken up for implementation even after lapse of more than three years of its launching. The AT&C losses of MeECL continued to be high mainly on account of poor billing and collection efficiency, overloading of transmission & distribution network, large number of un-metered connections and stopped/defective meters and theft/pilferage of energy, etc. The billing and collection system of MeECL also not efficient causing adverse impact on the financial health of MeECL.

The guidelines of MSERC were not strictly adhered to as far as addressing the consumer grievances and conducting energy audits were concerned.

Recommendations

The performance audit contains seven recommendations for timely implementation of GoI Schemes, strengthening the distribution network, evolving effective system of billing and revenue collection, expediting the cent percent metering of all consumers and other measures for controlling the AT&C losses, expedite completion of pending power projects for reducing dependence on outside purchase of power, timely redressal of consumer complaints, conducting energy audit and evolving an appropriate MIS, etc.

4.2.1 Introduction

The distribution system of the power sector constitutes the final link between the power sector and the consumer. The efficiency of the power sector is judged by the consumers on the basis of performance of this segment. However, it constitutes the weakest part of the sector and the real challenge of reforms in the power sector lies in efficient management of the distribution system. The National Electricity Policy (NEP) in this regard *inter alia* emphasises on the adequate transition from financing support to aid restructuring of distribution utilities, efficiency improvements and recovery of cost of services provided to consumers to make power sector sustainable at reasonable and affordable prices.

As part of power sector reforms, the erstwhile Meghalaya State Electricity Board (MeSEB) was unbundled and the Meghalaya Energy Corporation Limited (MeECL) was incorporated on 14 September 2009, however, pending formation of its three subsidiaries *viz.*, Meghalaya Power Generation Corporation Limited, Meghalaya Power Transmission Corporation Limited and Meghalaya Power Distribution Corporation Limited. At present, the business of these three subsidiary companies *viz.,* generation, transmission and distribution is being carried out by the holding company, the MeECL, which is under the administrative control of Power Department, Government of Meghalaya and has started functioning with effect from 01 April 2010. The management of the MeECL is vested with the Board of Directors (Board) comprising Chairman-*cum*-Managing Director (CMD), four full time Directors[1] and two Directors appointed by the State Government. The day-to-day management of the affairs of the MeECL is carried out by the CMD under the supervision, direction and control of the Board.

During 2006-07, 832.75 MUs of energy was sold by the erstwhile MeSEB which increased to 1104.52 MUs in 2010-11 i.e. an increase of 32.64 *per cent*. As on 31 March 2011, the MeECL had a distribution network of 0.24 lakh CKM, 112 sub-stations (33/11 KV) and 6437 transformers of various capacities. As on 31 March 2011, the number of consumers was 2.71 lakh. The turnover of the MeECL was ₹ 380.17[2] crore in 2010-11, which was equal to 90.12 *per cent* and 2.52 *per cent* of the State PSUs turnover (₹ 421.86[3] crore) and State Gross Domestic Product[4] respectively. The MeECL employed 3611 employees as on 31 March 2011. NEP aims to bring out reforms in the power distribution sector with focus on system up-gradation, controlling and reduction of T&D losses and power thefts and making the sector commercially viable besides financing strategy to generate adequate resources. It further aims to bring out conservation strategy to optimize utilisation of electricity with focus on demand side management and load management.

In view of the above, a performance audit on the working of the power distribution set up of the MeECL was conducted to ascertain whether it was able to adhere to the aims and objectives stated in the NEP and how far the distribution reforms have been achieved.

During the last five years ending 31 March 2010, a review on Implementation of Accelerated Power Development and Reforms Programme, a para on Implementation of Rural Electrification Schemes and a Performance Audit on Power Generating Undertaking (the MeECL) in the State of Meghalaya were included in the Reports of

[1] Director (Corporate Affairs), Director (Finance), Director (Distribution) and Director (Generation).
[2] First accounts of MeECL not finalised. Figures as furnished by MeECL
[3] Including the turnover figures (provisional) of MeECL for 2010-11, which has not been included in the Introductory portion (Appendix 4.2) of this Chapter pending finalisation of first accounts of MeECL.
[4] GSDP at current prices as furnished by Directorate of Economics and Statistics, Government of Meghalaya as on 01 September 2011 which stood at ₹ 15078 crore.

the CAG (Civil & Commercial), Government of Meghalaya for the year ended 31 March 2007, 31 March 2008 and 31 March 2010 respectively. The Committee on Public Undertakings (COPU) had discussed the para on Implementation of Rural Electrification Schemes in August 2010 and Performance Audit on Power Generating Undertaking (the MeECL) in the State of Meghalaya in September 2011. However, recommendations of the COPU on the said Para/Performance audit are yet to be received.

4.2.2 Scope and Methodology of Audit

The present performance audit conducted during March 2011 to July 2011 covers the performance of the distribution set-up of the MeECL during the period from 2006-07 to 2010-11. The performance audit mainly deals with network planning and execution, implementation of Central Schemes, operational efficiency, billing and collection efficiency, financial management, consumer satisfaction, energy conservation and monitoring.

For the purpose of this performance audit, three[5] out of eleven distribution divisions (27.27 *per cent*), two[6] out of five Rural Electrification (RE) construction divisions (40 *per cent*) and two[7] out of the six Meter Testing, Investigation (MTI) & Vigilance Sub-Divisions (33.33 *per cent*) were selected based on highest activities involved in terms of number of sub-stations, capital expenditure and numbers of consumers respectively. Two[8] out six revenue divisions (33.33 *per cent*) were selected adopting the combination of highest and lowest revenue collected. Further one work centre *viz*., Work Centre, Sumer being the largest of two[9] work centres (50 *per cent*) was selected, while the Central Stores was covered to the extent related to this performance audit. However, for comparison purposes, information pertaining to other distribution/revenue divisions was also considered.

The methodology adopted for attaining the audit objectives with reference to audit criteria consisted of explaining audit objectives to top management, scrutiny of records at Head Office and selected units, interaction with the audited entity personnel, analysis of data with reference to audit criteria, raising of audit queries, discussion of audit findings with the Management and issue of draft performance audit report to the Management for comments.

[5] East Khasi Hills Distribution Division, Shillong, East Garo Hills Distribution Division, William Nagar, and West Garo Hills Distribution Division, Tura

[6] RE Construction Division Jowai (covering Jaintia Hills District) and RE Construction Division, Tura (covering South and West Garo Hills District)

[7] Shillong and Central, Shillong

[8] Western Revenue Division, Umiam (being the highest revenue earning division) and East Garo Hills Revenue Division, William Nagar (being the lowest revenue earning division)

[9] Work Centre, Sumer and Work Centre, Mendipather

4.2.3 Audit Objectives

The objectives of the performance audit were to assess:

- whether aims and objectives of National Electricity Policy / Plans were adhered to and distribution reforms achieved;
- adequacy and effectiveness of network planning and execution;
- efficiency and effectiveness in implementation of the Central Schemes such as Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Restructured Accelerated Power Development and Reforms Programme (R-APDRP).
- operational efficiency in meeting the power demand of the consumers in the State;
- billing and collection efficiency of Revenue from consumers;
- whether a system is in place to assess consumer satisfaction and redressal of grievances;
- the energy conservation measures were undertaken; and
- that a monitoring system is in place and the same is utilised in review of overall working of the Distribution Company.

4.2.4 Audit Criteria

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

- provisions of Electricity Act 2003;
- National Electricity Plan, Plans and norms concerning distribution network of the MeECL and Planning criteria fixed by the Meghalaya State Electricity Regulatory Commission (MSERC);
- terms and conditions contained in the Central Scheme Documents;
- standard procedures for award of contract with reference to principles of economy, efficiency and effectiveness;
- norms prescribed by various agencies with regard to operational activities;
- norms of technical and non-technical losses;
- guidelines/ instructions/ directions of State Government / MSERC; and
- best performance under various parameters in the region / all India averages.

4.2.5 Financial Position and Working Results

The financial position of the MeECL for the five years ending 2010-11 is given below:

Table 4.2.1

(₹ in crore)

Particulars	2006-07	2007-08	2008-09	2009-10	2010-11[10]
A. Liabilities					
Paid up Capital	202.00	202.00	202.00	202.00	202.00
Reserve & Surplus (excluding Depreciation Reserve)					
(i) Consumers' Contribution	46.31	49.31	52.93	60.46	66.08
(ii) Grants/Subsidies	202.55	336.91	536.52	843.06	1057.18
(iii) Capital Reserves	2.70	2.70	2.99	2.98	3.06
Total	**251.56**	**388.92**	**592.44**	**906.50**	**1126.32**
Borrowings (Loan Funds)					
Secured and Unsecured	650.92	743.17	836.67	1011.81	1179.04
Payment due on Capital Liabilities	343.16	383.88	428.14	585.28	597.43
Current Liabilities & Provisions	186.90	257.23	315.88	359.66	460.93
Total	**1634.54**	**1975.20**	**2375.13**	**3065.25**	**3565.72**
B. Assets					
Gross Block	500.81	525.18	549.67	607.51	614.55
Less: Depreciation	235.08	249.22	264.83	295.00	322.13
Net Fixed Assets	265.73	275.96	284.84	312.51	292.42
Capital works-in-progress	486.88	736.83	1013.42	1330.81	1654.92
Investments	48.26	66.37	80.21	226.26	214.78
Assets not- in- use, deferred cost & intangible assets	22.03	19.41	22.82	31.52	34.46
Current Assets, Loans and Advances	407.86	474.19	581.23	715.12	828.73
Accumulated losses	403.78	402.44	392.61	449.03	540.41
Total	**1634.54**	**1975.20**	**2375.13**	**3065.25**	**3565.72**
Net Worth[11]	(201.78)	(200.44)	(190.61)	(247.03)	(338.41)

Source: data furnished by MeECL

It may be seen from the above that

- the accumulated losses of the MeECL which increased by 33.84 *per cent* during the performance audit period, from ₹ 403.78 crore in 2006-07 to ₹ 540.41 crore in 2010-11 and had fully wiped out the paid up capital (₹ 202 crore);
- at the end of 2006-07, MeECL had the negative networth of (-) ₹ 201.78 crore, which further deteriorated during the performance audit period and reached to (-) ₹ 338.41 crore in 2010-11;
- during the performance audit period (2006-11), there was significant inflow of capital funds (₹ 1,108.90 crore) by way of increase in the grants/subsidies towards capital expenditure (₹ 854.63 crore) and payment due on capital liabilities (₹ 254.27 crore). However, major portion of capital funds remained blocked without any return in capital work in progress which increased (239.90 *per cent*)

[10] Figures for 2010-11 are provisional.

[11] Net Worth = Paid up Capital + Free Reserves & Surplus - Accumulated losses.

from ₹ 486.88 crore in 2006-07 to ₹ 1654.92 crore in 2010-11 mainly due to inordinate delays in completion of its Hydro electric projects[12].

- Secured and Unsecured Loans increased from ₹ 650.92 crore in 2006-07 to ₹ 1179.04 crore in 2010-11 mainly due to funds borrowed through issue of bonds and loan availed from Finance Corporations/Banks, State Government, Centrally Sponsored Schemes for ongoing projects *etc.*; and
- Current Liabilities & Provisions which was ₹ 186.90 crore in 2006-07 increased by 146.62 *per cent* to ₹ 460.93 crore in 2010-11 mainly on account of purchase of power.

The particulars of cost of electricity *vis-à-vis* revenue realisation per unit there from are indicated below:

Table 4.2.2

Sl. No.	Description	2006-07	2007-08	2008-09	2009-10	2010-11
1	**Income (₹ in crore)**					
(i)	Revenue from Sale of Power	233.17	318.15	392.51	415.74	380.17
(ii)	Revenue subsidy & grants[13]	24.15	32.80	11.70	12.31	12.63
(iii)	Other income	30.69	32.29	39.78	58.50	79.94
	Total Income	**288.01**	**383.24**	**443.99**	**486.55**	**472.74**
2	**Distribution (in MUs)**					
(i)	Own generation	389.09	663.06	552.84	534.79	507.89
(ii)	Total power purchased	929.30	924.15	968.92	947.28	1129.14
(iii)	Net Power available for Sale	1318.39	1587.21	1521.76	1482.07	1637.03
(iv)	Less: Sub-transmission & distribution losses	485.64	529.11	477.16	503.22	532.51
	Net power sold	**832.75**	**1058.10**	**1044.60**	**978.85**	**1104.52**
3	**Expenditure on Distribution of Electricity (₹ in crore)**					
(a)	**Fixed cost**					
(i)	Employees cost	82.60	95.93	104.79	114.92	135.32
(ii)	Administrative and General expenses	6.48	7.32	7.92	10.01	11.67
(iii)	Depreciation	12.62	12.90	14.12	25.94	27.02
(iv)	Interest and finance charges	52.62	76.24	87.57	103.41	133.78
	Total fixed cost	**154.32**	**192.39**	**214.40**	**254.28**	**307.79**
(b)	**Variable cost**					
(i)	Purchase of Power	206.87	174.53	168.98	195.03	247.64
(ii)	Transmission/ Wheeling Charges	33.86	28.67	32.66	27.60	56.00
(iii)	Repairs & Maintenance	12.61	17.23	16.13	20.35	22.79
	Total variable cost	**253.34**	**220.43**	**217.77**	**242.98**	**326.43**
(c)	**Total cost 3 (a) + (b)**	**407.66**	**412.82**	**432.17**	**497.26**	**634.22**
4	Realisation (₹ per unit) (including revenue subsidy)[14]	3.09	3.32	3.87	4.37	3.56
5	Fixed cost (₹ per unit)	1.85	1.82	2.05	2.60	2.79
6	Variable cost (₹ per unit)[15]	3.04	2.08	2.08	2.48	2.96
7	Total cost per unit (in ₹) (5+6)	4.89	3.90	4.13	5.08	5.75
8	Contribution (4-6) (₹ per unit)	0.05	1.24	1.79	1.89	0.60
9	**Profit (+)/Loss(-) per unit (in ₹) (4-7)**	**-1.80**	**-0.58**	**-0.26**	**-0.71**	**-2.19**

Source: data furnished by MeECL

[12] As pointed out under Para 4.2.8 to 4.2.8.3 of the Report of the Comptroller and Auditor General of India for the year ended 31 March 2010 (Government of Meghalaya).
[13] Including subsidy on power purchases (2006-07 & 2007-08)
[14] Realisation per unit includes revenue grants / subsidy.
[15] Variable cost and total cost per unit are worked out excluding Income Tax.

It may be seen from the above that

- the realisation per unit increased from ₹3.09 in 2006-07 to ₹ 4.37 per unit (2009-10) but reduced to ₹ 3.56 per unit (2010-11).
- despite revision in tariff on five occasions[16]during 2006-11, the per unit loss increased by ₹ 0.39 from (-) ₹ 1.80 (2006-07) to (-) ₹ 2.19 (2009-10) due to increase in the cost per unit by ₹ 0.86 during said period.
- employees cost, interest and finance charges and cost of power purchase constituted the major elements of cost in 2010-11 which represented 21.34, 21.09 and 39.05 *per cent* respectively of the total cost. On the other hand, revenue from sale of power and other income constituted the major elements of revenue in 2010-11 which represented 80.42 and 16.91 *per cent* of the total revenue.
- the sub-transmission and distribution (T&D) losses had increased from 485.64 MUs (36.84 *per cent*) in 2006-07 to 532.51 MUs (32.53 *per cent*) in 2010-11, thereby registering a marginal improvement in T&D losses by 4.31 *per cent* in terms of percentage to net power available for sale.
- The State remained largely dependent upon purchase of power which ranged from 70.49 *per cent* (2006-07) to 68.97 *per cent* (2010-11) of net power available for sale.

Recovery of cost of operations

During the performance audit period (2006-11), the total cost of operation of MeECL increased by ₹ 0.86 per unit from ₹ 4.89 per unit (2006-07) to ₹ 5.75 per unit (2010-11) mainly due to increase in per unit employee cost from ₹ 0.99 (2006-07) to ₹ 1.23 (2010-11) and also per unit increase in interest and finance cost from ₹ 0.63 per unit (2006-07) to ₹ 1.21 (2010-11).

The MeECL was not able to recover its cost of operations during any of the year covered in performance audit. It may be seen from the working results (**Table 4.2.2**) that there remained a revenue gap of ₹ 150.34 crore[17] in 2006-07 (even after including subsidies & grants), which increased to ₹ 241.42 crore in 2010-11. The steep increase in revenue gap needs immediate attention of the State Government for necessary remedial action.

4.2.6 Audit Findings

We explained the audit objectives to the MeECL during an Entry Conference held on 22 February 2011. Subsequently, audit findings were reported to the MeECL and the State Government in September 2011 and also discussed in the 'Exit Conference' held on 29 September 2011. The Exit Conference was attended by Director (Finance), Director (Distribution) and Chief Engineer (Distribution) along with other officers of the MeECL and by Additional Chief Secretary of the State Government. The views

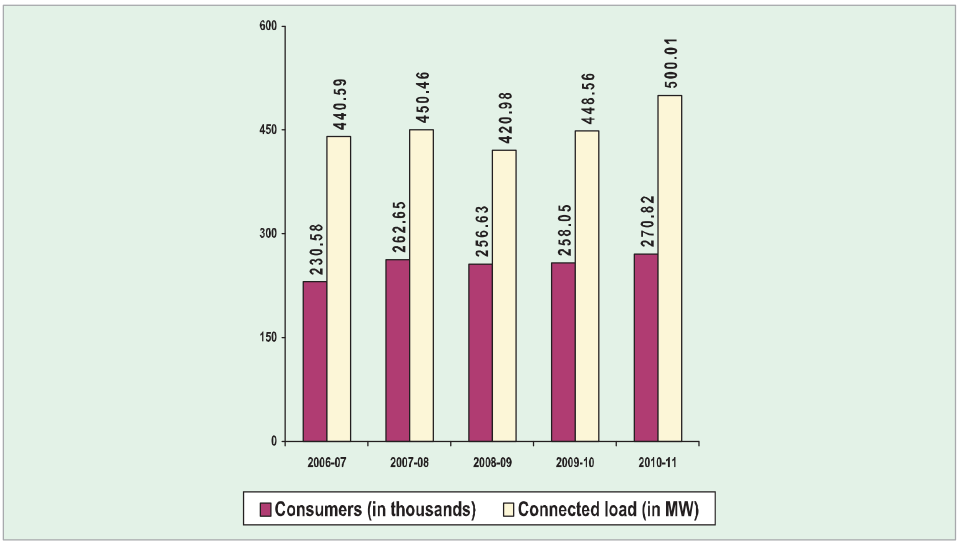
[16] Tariff was revised in January 2008, October 2008, December 2009, February 2010 and September 2010.
[17] Total cost – (Revenue from sale of power +Revenue from subsidy + Grants).

expressed by the representatives of MeECL and the State Government in the Exit Conference have been duly considered while finalising this Performance audit. The audit findings are discussed in subsequent paragraphs.

4.2.7 Distribution Network Planning

The MeECL is required to prepare long term/annual plan for creation of infrastructural facilities for efficient distribution of electricity so as to cover maximum population in the State. Besides, the upkeep of the existing network, additions in distribution network were also to be planned keeping in view the demand/ connected load, anticipated new connections and growth in demand based on Electric Power Survey carried out by Central Electricity Authority (CEA) from time to time. Considering these physical parameters, capital investment plans were required to be submitted to the State Government/ Meghalaya State Electricity Regulatory Commission (MSERC). The major components of the outlay should include normal development and system improvement besides rural electrification and strengthening of IT enabled systems.

The particulars of consumers and their connected load during the performance audit period are given in the bar chart below:



Source: data furnished by MeECL

It may be seen from the above that during the performance audit period, the number of consumers had increased from 230.58 thousand (2006-07) to 270.82 thousand (2010-11) by 17.45 *per cent* and connected load had also increased from 440.59 MW (2006-07) to 500.86 MW (2010-11) by 13.68 *per cent.*

The system improvement and rural electrification schemes have been dealt with separately, under subsequent paragraphs. We observed that MeECL did not plan/set target for addition in the distribution network based on the anticipated growth in demand/connected load during any of the five years covered in performance audit. The particulars of distribution network existing at the beginning of preceding five years from 2006-07 to 2010-11, additions made during each year and overall position of distribution network at the close of each year are given below:

Table 4.2.3

Sl. No.	Description	2006-07	2007-08	2008-09	2009-10	2010-11
(A)	**No. of Substations (of various categories)**					
i	At the beginning of the year	4630	5154	5434	5774	6204
ii	Additions made during the year	524	280	340	430	345
iii	At the end of the year	5154	5434	5774	6204	6549
iv	Shortage in addition (ii - iii)	-	-	-	-	-
(B)	**HT Lines (in CKM)**					
i	At the beginning of the year	10061.40	10273.30	10687.51	11761.81	11902.90
ii	Additions made during the year	211.90	414.21	1074.30	141.09	640.08
iii	At the end of the year	10273.30	10687.51	11761.81	11902.90	12542.98
iv	Shortage in addition (ii - iii)	-	-	-	-	-
(C)	**LT Lines (in CKM)**					
i	At the beginning of the year	7812.17	8153.80	8725.30	9513.66	10863.77
ii	Additions made during the year	341.63	571.50	788.36	1350.11	125.71
iii	At the end of the year	8153.80	8725.30	9513.66	10863.77	10989.48
iv	Shortage in addition (ii - iii)	-	-	-	-	-
(D)	**Transformers Capacity (in MVA)**[18]					
i	At the beginning of the year	306.05[19]	306.05	327.86	394.50	435.39
ii	Additions made during the year	-	21.81	66.64	40.89	5.92
iii	At the end of the year	306.05	327.86	394.50	435.39	441.31
iv	Shortage in addition (ii - iii)	-	-	-	-	-

Source: MeECL

In this regard, we further observed the following:

- As per the guidelines for reduction of transmission and distribution losses issued by CEA in February 2001, as part of long term measures, the preparation of long term plans on regular basis for phased strengthening and improvement of the distribution systems along with associated transmission system was to be adopted. However, the MeECL did not have any capital investment plan or capacity addition plan to upgrade its distribution network.

- The addition made during the performance audit period by way of substations (1919 number), HT lines (2481.58 CKM), LT lines (3177.31 CKM) and transformation capacity (135.26 MVA) was mainly due to the implementation of Rajiv Gandhi Grameen Vidyutikaran Yojna (RGGVY), a centrally sponsored scheme.

- As compared to the growth of connected load of 440.59 MW (equivalent to 550.74 MVA at 0.80 Power Factor) in 2006-07 to 500.01 MW (equivalent to 625.07 MVA at 0.80 Power Factor) in 2010-11 (13.49 *per cent*) as depicted in the graph at pre-page, the increase in transformer capacity was from 306.05 MVA to 441.31 MVA (44.20 *per cent*). The available transformer capacity (441.31 MVA) in the State as on 31 March 2011 was insufficient to meet the requirement of the

[18] Represents the transformation capacity of 33/11 KV transformers only.
[19] As figures are not available, capacity as at the end of 2006-07 have been adopted.

connected load (500.01 MVA) as on that date. Thus, the increase in distribution capacity could not match the pace of growth in consumer demand. This led to overloading of network and consequential rotational cuts in distribution of electricity.

The MeECL replied (October 2011) that proposals for strengthening the sub-transmission and distribution network in the state at a cost of ₹ 321 crore and ₹ 75 crore had been submitted to Government of India and North Eastern Council respectively. The Government also endorsed (November 2011) the views of the MeECL.

The reply is misleading as these are merely investment proposals prepared without taking into account the anticipated future growth in demand and corresponding requirement of system augmentation. The MeECL should introduce a system of preparation and monitoring of long term plan for phased strengthening and improvement of the distribution systems along with associated transmission system.

4.2.8 Rural Electrification

The National Electricity Policy (NEP) states that the key objective of development of the power sector is to supply electricity to all areas including rural areas for which the GOI and the State Governments would jointly endeavour to achieve this objective. Accordingly, the Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) was launched in April 2005, which aimed at providing access to electricity for all households in five years for which the Government provides 90 *per cent* capital subsidy.

Besides, the GOI notified the Rural Electrification Policy (REP) in August 2006. The REP *inter-alia* aims at providing access to electricity for all households by 2009 and Minimum lifeline consumption of one Unit per household per day as a merit good by the year 2012. The other Rural Electrification (RE) schemes *viz.*, Accelerated Electrification of one lakh villages and one crore household and Minimum Needs Programme were merged into RGGVY. The features of the erstwhile 'Kutir Jyoti Programme' were also suitably integrated into this scheme.

According to new definition of village electrification as notified by GOI on 05 February, 2004, a village would be declared electrified if:

i) Basic infrastructure such as distribution transformer and distribution lines are provided in the inhabited locality as well as the dalit basti/hamlet where it exists.

ii) Electricity is provided to public places like schools, panchayat offices, health centres, dispensaries, community centres, *etc.* and

iii) The number of households electrified should be at least 10 *per cent* of the total number of households in the village.

Our observations on implementation of RGGVY by MeECL are discussed below:

4.2.8.1 Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY)

The RGGVY scheme was implemented by the MeECL from 2007-08 through its five RE divisions *viz.*, Shillong, Jowai, Nongstoin, Tura and William Nagar. For the purposes of this performance audit, two divisions (Tura and Jowai divisions) which cover West and South Garo hills and Jaintia hills districts, were covered.

As on 31 March 2006, out of total 6026 villages in the State (as per 2001 Census), 3568 villages (59.21 *per cent*), were electrified. Under RGGVY, out of the total 6026 villages (including villages already electrified), the MeECL targeted to electrify/intensify[20] total 5388 villages by January 2012[21] in lines with National Electricity Policy (NEP). The year-wise target *vis-à-vis* achievement of electrification/intensification of villages under RGGVY scheme during 2007-11 is shown in the table below:

Table 4.2.4

Year	Villages electrified/ intensified in the beginning of the year	Villages targeted for electrification / intensification during the year	Villages carried forward from previous year for electrification / intensification during the year	Total villages targeted for electrification/ intensification during the year	No. of villages electrified /intensified during the year	Percentage of achieve-ment against target during the year
(1)	(2)	(3)	(4)	(5)=(3)+(4)	(6)	(7)=(6)/(5) x 100
2007-08	0	930	0	930	0	0.00
2008-09	0	19	930	949	207	21.81
2009-10	207	834	742	1576	729	46.26
2010-11	936	366	847	1213	265	21.85
Total		**2149**			**1201**	**55.89**

Source: data furnished by MeECL

It could be seen from the above table that only 55.89 *per cent* of targeted villages were electrified/intensified during the period 2007-11. We observed that MeECL targeted to cover total 2,149 villages for electrification/intensification during 2007-11 against overall number of 5388 villages to be covered under RGGVY upto January 2012, thereby leaving the balance 3239 villages for covering between April 2011 and January 2012. This indicates that the planning of MeECL was deficient and prepared on adhoc basis without rationally linking with the overall schedule of implementing RGGVY in the State. Further, MeECL failed to achieve the lower target (2,149 villages) for 2007-11. As such, there is a distant possibility that the MeECL will be able to provide access to electricity for all households and minimum lifeline consumption of one unit per household per day by the year 2012 as envisaged under NEP.

[20] Intensification includes creating of additional infrastructure such as construction of 11 KV and LT line, installation of DTs in already electrified villages for improved electrical coverage.
[21] The MeECL in its reply (October 2011) stated that the works would be completed in March 2012.

The MeECL replied (October 2011) that it was difficult to fully factor the geographical and climatic constraints at the time of preparation of DPR. The Government also endorsed (November 2011) the views of the MeECL.

The reply is not acceptable as the MeECL should have prepared the DPRs after appropriately addressing all possible constraints involved in implementation of the projects and ignoring these factors at planning stage is indicative of deficient planning by MeECL.

4.2.8.2 Funds received under RGGVY

The funds received under RGGVY by the MeECL and expenditure incurred there against during the period 2007-08 to 2010-11 is shown in the table below:

Table 4.2.5

(₹ in crore)

Year	Opening Balance	Funds received during the year	Total funds available	Funds Utilised	Percentage of utilisation to available funds	Unspent funds at the end of the year	Percentage of unspent funds available
2007-08	0.00	19.93	19.93	8.50	42.65	11.43	57.35
2008-09	11.43	12.20	23.63	17.04	72.11	6.59	27.89
2009-10	6.59	129.39	135.98	19.98	14.69	116.00	85.31
2010-11	116.00	87.08	203.08	79.28	39.04	123.80	60.96
Total		**248.60**		**124.80**			

Source: data furnished by MeECL

It may be seen from the above that

- as at the end of 2010-11, out of total funds (₹ 248.60 crore) received under RGGVY, funds to the extent of 50.20 *per cent* could be utilised thereby leaving an unspent balance of ₹ 123.80 crore as on 31 March 2011.
- though percentage of utilisation of funds to the funds available increased from 42.65 *per cent* in 2007-08 to 72.11 *per cent* in 2008-09, it came down to 14.69 *per cent* in 2009-10 and 39.04 *per cent* in 2010-11; and
- the year-wise percentage of funds utilised to total funds available remained below 45 *per cent* during four years period from 2007-08 to 2010-11 except during 2008-09.

4.2.8.3 Electrification / Intensification of villages under RGGVY

The MeECL submitted (December 2005) seven DPRs (₹ 264.45 crore) for the rural electrification work under RGGVY scheme for all seven districts of the State to the Rural Electrification Corporation Limited[22] (REC). The REC, initially, approved ₹ 46.08 crore (September/November 2006) for Ri-Bhoi and Jaintia Hills and finally approved (March 2008) ₹ 290.49 crore for all the seven districts. However, on account of poor response of bidders and also high quotations received, the project cost

[22] Nodal agency to coordinate and achieve the goal of electrification of villages and finance the projects under RGGVY.

was revised to ₹ 376.06 crore[23] (August 2008 / December 2009) and ₹ 442.74 core[24] (March 2010 / January 2011) for the projects for all the seven districts. The district-wise project cost approval/revisions, details of work orders/its amendments and time taken in award of work are shown below:

Table 4.2.6

District	Project cost approval	Project cost* Revised/Date		Work awarded**		Time taken in award of work (months)
	Amount (₹ in crore) /(Date)	Amount (₹ in crore)	Date	Amount (₹ in crore)	Date	
Jaintia Hills	26.19 (21.11.2006)	30.22 (35.32)	29.08.2008 (08.03.2010)	29.01 (30.39)	16.07.2007 (09.06.2010)	7
Ri-Bhoi	19.89 (26.09.2006)	20.85 (21.04)	29.08.2008 (08.03.2010)	19.74 (19.91)	28.09.2007 (09.06.2010)	12
East Khasi Hills	16.62 (06.03.2008)	16.62 (20.39)	06.03.2008 (08.03.2010)	16.94 (19.35)	09.06.2008 (09.06.2010)	3
South Garo Hills	49.74 (11.03.2008)	73.73 (87.77)	07.12.2009 (18.01.2011)	68.35 (81.39)	06.01.2010 (07.02.2011)	21
West Garo Hills	81.43 (11.03.2008)	107.32 (128.32)	07.12.2009 (18.01.2011)	100.03 (119.43)	06.01.2010 (07.02.2011)	21
East Garo Hills	61.95 (11.03.2008)	82.15 (95.69)	07.12.2009 (18.01.2011)	76.31 (88.83)	06.01.2010 (07.02.2011)	21
West Khasi Hills	34.67 (11.03.2008)	45.17 (54.21)	07.12.2009 (18.01.2011)	42.11 (50.43)	06.01.2010 (07.02.2011)	21
Total	**290.49**	**376.06 (442.74)**		**352.49 (409.73)**		

*Amount / date in bracket represent second revision of project cost. Source : MeECL
** Amount / date in bracket represent amendment to work orders.

It may be seen from the above that:

- the MeECL issued first work order for the implementation of RGGVY scheme in July 2007 for Jaintia Hills district and thereafter in respect of other districts work orders were issued during September 2007 to January 2010; and
- the award of work for implementation of RGGVY was abnormally delayed in five out of seven districts by 12 months (one district) and 21 months (four districts) from the date of project cost approval. The MeECL stated (August 2011) that the taking up of the works in case of South, West and East Garo Hills and West Khasi Hills districts, there was delay in sanctioning of funds by the REC.

Our further observations on execution of RGGVY in three[25] out of seven districts test checked are discussed below:

As per the work orders, works were to be completed by March 2011[26] and January 2012 for Jaintia Hills and South and West Garo Hills respectively. In case of Jaintia Hills, as on 31 March 2011, overall progress in terms of funds utilisation was to the

[23] Based on the lowest cost quoted for all the seven districts.
[24] Based on the survey for all the seven districts.
[25] Jaintia Hills, South Garo Hills and West Garo Hills districts.
[26] As per the amended orders, works were scheduled for completion within 24 months i.e. in March 2011 (Jaintia Hills District).

extent of 86.17 *per cent*[27]. However, in case of South and West Garo Hills, survey works, scheduled for completion by July 2010 were completed in February 2011 and erection works were started only in March 2011. However, the MeECL had released (March 2011) payments to the tune of ₹ 41.71 crore (20.77 *per cent* of total contract value of ₹ 200.82 crore) to the contractors.

4.2.8.4 Excess procurement of materials

Under RGGVY project, the MeECL issued work orders for West and South Garo Hills (January 2010) and Jaintia Hills (July 2007) for construction works on village electrification and for providing service connection to 14,029 BPL households as notified (August 2008) by the State Government. Based on the surveys carried out by the contractors for assessing the actual requirement as per the terms of the orders, the scope of work in three districts was reduced to only 12,074 BPL households.

Owing to this change in the scope of work, amendments to the work orders were issued between June 2010 (Jaintia Hills) and February 2011 (West and South Garo Hills). Before issue of said amendments, however, in case of Jaintia Hills district, the materials as provided in the original work orders were procured and issued to the contractors.

As per clause 5.1 (c) of the RGGVY guidelines, there should be a clear identification of beneficiaries and stake holder analysis should be undertaken including consultation with stake holders at the time of project formulation. However, in the state of Meghalaya, the actual survey was done by the contractor during implementation of project. We are of the view that the survey should have been conducted initially during the time of project formulation and the requirements should have been assessed and clearly indicated in the DPR itself. On account of the failure on the part of the MeECL to conduct the actual survey at the time of project formulation itself or at least before awarding the tenders, in respect of Jaintia Hills district, the above stated materials valuing ₹ 1.06 crore were procured and issued in excess of requirement for erection work and were lying with the contractors (March 2011). In West and South Garo Hills districts the contractors had commenced the supply of materials from March 2011 only.

The MeECL accepted (October 2011) that the excess material, lying with the contractors in respect of Jaintia Hills district was being processed for adjustment in the closure proposal. The Government also endorsed (November 2011) the views of the MeECL.

4.2.8.5 Exclusion of villages under the RGGVY scheme

During scrutiny of records relating to coverage of villages under RGGVY, we noticed that out of the 456 villages[28] excluded from RGGVY in the State, 384 villages were

[27] Payments to the tune of ₹ 26.29 crore up to February 2011 was released against the total work order value of ₹ 30.39 crore.

[28] Out of 6026 villages, as per Census 2001 and information as furnished by the MeECL.

not included as these villages were to be taken up under other schemes *viz*., MNREDA[29] (155)[30] or under border dispute (28)[31] or uninhabited (201)[32]. However, reasons for the exclusion of the balance 72 villages[33] were not on record.

In case of 37 villages (South and West Garo Hills districts) the exclusion of which was noticed in audit, the MeECL admitted (May 2011) that it was due to oversight. Thus, inhabitants of at least 37 villages were deprived of the benefits under RGGVY thereby defeating the National Electricity Plan (NEP) of providing electricity to all.

4.2.8.6 Provision of excess capacity of distribution transformer (DTRs)

The scope of work for construction works on village electrification under RGGVY for West and South Garo Hills and Jaintia Hills included provision for DTRs of different capacities ranging from 5 KVA to 25 KVA. The MeECL issued total six work orders for electrification/intensification of total 2535 villages relating to three selected districts, which included installation of DTRs having different capacities. Out of three work orders pertaining to 1123 villages of which, work details relating to 70 villages were test checked. We observed that the capacity of DTRs (25 KVA) provided for these 70 villages was in excess of actual connected load of all the households (BPL and APL) by 82.86 *per cent* to 870.32 *per cent* as detailed below:

Table 4.2.7

Name of the District	Number of villages with provision of 25 KVA DTs reviewed in audit	Number of villages test checked	Total number of households as per census 2001	Number of BPL household as per census 2001	Connected load (KWH)[34] for BPL	Connected load (KWH)[35] for APL	Total connected load (KWH) required (VI + VII)	Number of DTRs of 25 KVA capacity	DTR capacity (KWH)[36]	Excess capacity available (KWH) (X - VIII)	Percentage of excess capacity to actual connected load
I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**	**IX**	**X**	**XI**	**XII**
Jaintia Hills	428	32	1756	164	9.84	585.29	595.13	37	1088.24	493.11	82.86
West Garo Hills	426	2	107	14	0.84	34.19	35.03	3	88.24	53.21	151.90
South Garo Hills	269	26	370	186	11.16	67.65	78.81	26	764.71	685.90	870.32

Source: data furnished by MeECL

[29] Schemes by Meghalaya Non Conventional and Rural Energy Development Agency.

[30] 31 villages in Jaintia Hills, 19 villages in Ri Bhoi, 45 in East Khasi Hills, 18 in East Garo Hills and 42 in West Khasi Hills districts.

[31] Ri Bhoi district.

[32] 32 villages in Jaintia Hills, 19 villages in Ri Bhoi, 42 in East Khasi Hills, 10 in South Garo Hills, 64 in West Garo Hills, 17 in East Garo Hills and 17 in West Khasi Hills districts.

[33] 4 villages in Jaintia Hills, 3 villages in Ri Bhoi, 7 in East Khasi Hills, 1 in South Garo Hills, 7 in West Garo Hills, 3 in East Garo Hills and 47 in West Khasi Hills districts.

[34] Connected load (KWH) = 60 Watt/BPL household/1000 i.e. 0.06 KWH as per REC requirement, total connected load in the village = 0.06 KWH * number of BPL households

[35] Connected load (KWH) for APL as per REC calculation = 0.3125 KVA per house hold which works out to 0.367647 KWH

[36] DT Capacity (KWH) = number of DTs * 25 KVA/0.85 power factor as per MeECL.

The MeECL stated (October 2011) that after necessary scrutiny, rectification/ corrective measures would be explored in this regard. The Government also endorsed (November 2011) the views of the MeECL.

4.2.8.7 Huge variation in rate of materials

Mention was made in para 7.3.13 of the Report of the CAG for the year 2007-08 (Government of Meghalaya) that additional expenditure of ₹ 5.23 crore was incurred on procurement of materials for Jaintia Hills District under RGGVY at rates more than the rates finalised for Ri-Bhoi district as proper evaluation was not made by the MeECL.

During the period under performance audit, it was seen that in case of West Garo Hills and South Garo Hills, there was no improvement in the procedure for procurement of materials. With a view to have smooth and speedy implementation of work under RGGVY, total procurement of materials was divided into five packages (three for West Garo Hills and two for South Garo Hills). Accordingly, tenders were invited (April 2008 to October 2008) separately for the above packages and bids were received in June 2008 for West Garo Hills and in November 2008 for South Garo Hills. The MeECL awarded (January 2010) work for all five packages to five contractors[37] and the component of the contract price included ex works value[38] and freight and insurance. Our scrutiny revealed that the ex-works prices finalised for these two districts in respect of various materials (conductor, steel tubular poles, transformers *etc.*) varied from 1.10 *per cent* to 220.00 *per cent* of lowest price of materials amongst these five contracts. Compared to the lowest prices of materials, the MeECL had incurred additional expenditure of ₹ 5.58 crore on the procurement of major items so far (March 2011) under these contracts. The variation in the materials was due to the fact that the tenders were floated separately for each package and the rates quoted for the same type of materials varied in each case. The MeECL did not analyse and compare the cost of the materials to take note of such wide variation in individual items under each package. This clearly indicated that the proper evaluation of tenders was not made.

The MeECL replied (October 2011) that the RGGVY project was a turnkey project and contracts were finalised on whole package and not on individual item basis. The Government also endorsed (November 2011) the views of the MeECL.

The reply is not acceptable as in the light of wide variation in individual items, proper bid evaluation would have enabled the management to correctly ascertain the reasonability of the price of whole package. Further, keeping in view the variation in estimated and actual quantity of work and consequent payment on individual item basis, determination of rate of individual item is significant for proper control over the cost of the project.

[37] At a value of ₹ 29.25 crore, ₹ 28.97 crore, ₹ 26.19 crore, ₹ 30.36 crore and ₹ 19.81 crore.

[38] Including taxes.

4.2.8.8 Survey on works under taken under RGGVY scheme

To gather consumer feedback and input on the use of infrastructure created under RGGVY Scheme, we conducted (May/June 2011) a beneficiary Survey in thirteen villages[39] (selected on random basis) of Jaintia Hills and Ri-Bhoi Districts where works under RGGVY were nearing completion. The survey revealed the following:

- Out of 13 villages, in 12 villages (where response was received) with 2532 households, only 1513 households (60 *per cent*) were having electrical connections.
- 11 villages, out of 13 villages, faced frequent load shedding and in case of six villages, the time for such load shedding was not fixed.
- in case of six out of 13 villages, quality of power supply was poor as inhabitants faced voltage fluctuation problems.
- in case of seven out of 13 villages where clear responses were received, the availability of power in a month ranged from 20 to 27 days, whereas power availability in day time was only five to seven hours in three villages, eight to nine hours in two villages and more than 11 hours only in two villages.

From the above it is evident that the State of Meghalaya has a long way to go to fulfill the objectives of NEP *viz.*, access to electricity to all rural house holds and supply of quality power.

4.2.9 Restructured Accelerated Power Development and Reforms Programme

The Government of India (GOI) approved the Accelerated Power Development and Reforms Programme (APDRP) to leverage the reforms in power sector through the State Governments. This scheme was implemented by the power sector companies through the State Government with the objective of up-gradation of sub-transmission and distribution system including energy accounting and metering, for which financial support was provided by GOI.

In order to carry on the reforms further, the GOI launched the Restructured Accelerated Power Development and Reforms Programme (R-APDRP) in July 2008 as a Central Sector Scheme for XI Plan. The R-APDRP scheme comprises Part A and B. Part A was dedicated to establishment of IT enabled system for achieving reliable and verifiable baseline data system in all towns besides installation of SCADA[40]/Distribution Management System. For this, 100 *per cent* loan is provided, and was convertible into grant on completion and verification of same by Third Party independent evaluating agencies. The Part B of the scheme deals with strengthening of regular sub-transmission & distribution system and up-gradation projects. The focus in this part was on reduction of AT&C losses on sustainable basis. For Meghalaya, being a special category State, the GOI was to provide financial

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[39] Jaintia Hills District six villages (Thadmynri, Ialong, Jarain, Sankhat, Saipung and Narwan) and Ri-Bhoi district seven villages (Umdiker, Nongrah, Kyrdemkulai, Lumsohoieng, Lalumpam, Nalapara and Sarikushi).

[40] Supervisory Control And Data Acquisition – It generally refers to industrial control systems: computer systems that monitor and control industrial, infrastructure, or facility-based processes.

assistance to the extent of 90 *per cent* of the project cost in the form of loan. The entire loan of GOI was to be converted into grant in five tranches depending on extent of maintaining AT&C loss level at 15 *per cent* for five years.

Implementation of R-APDRP

The present progress of implementation of R-APDRP in the State of Meghalaya was not appreciating. We observed that against the total cost of ₹ 43.85 crore projected (March 2010) under Detailed Project Reports (DPRs) for implementation of IT infrastructure in nine project towns, the R-APDRP Steering Committee (March 2010) approved the costs to the extent of ₹ 33.97 crore. As against this, an amount of ₹ 10.19 crore only was received (February 2011) by MeECL. We noticed that MeECL could not award the contract for appointment of Implementing Agency (June 2011) as the court case filed by one of the bidders was pending (June 2011) in Guwahati High Court. At present, the MeECL had proposed to procure consumer meters under R-APDRP project at a cost of ₹ 28.44 lakh. The entire funds (₹ 10.19 crore) received by MeECL remained unutilised (July 2011).

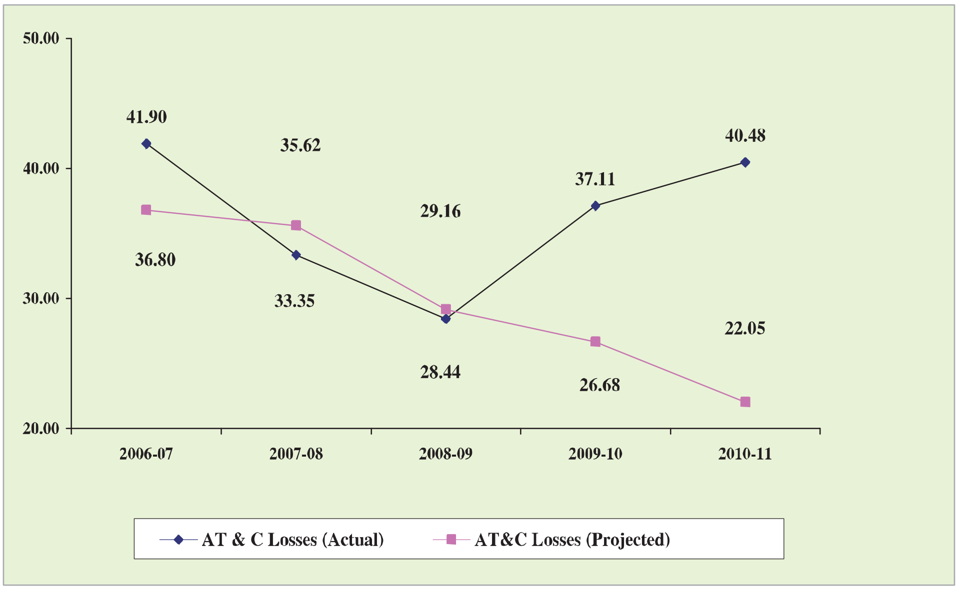
Thus, the R-APDRP scheme introduced (July 2008) in the State with the prime objective of strengthening the distribution system and reducing high Aggregate Technical & Commercial (AT&C) losses in the State was pending for implementation even after lapse of more than three years of its launching in July 2008.

As regards implementation of APDRP (previous scheme of GOI), we observed that as per clause 3 of guidelines for implementation of R-APDRP (Part-A) and also as per the directions (December 2008) of GOI (Ministry of Power), the MeECL was required to furnish the completion certificates for all the works executed under APDRP and short close the balance ongoing projects before 20 February 2009 so as to complete all closing formalities (including release of funds) of the scheme by March 2009. We, however, observed that the works under APDRP were continuing (March 2011) and the scheme funds (₹ 9.61 crore out of ₹ 195.14 crore) were lying unspent with MeECL. The issues relating to implementation of the APDRP Scheme, however, have already been covered under the performance audit appeared in the Audit Report (Civil), 2006-07, Government of Meghalaya.

4.2.10 Aggregate Technical & Commercial Losses

One of the prime objectives of APDRP as well as R-APDRP scheme was to strengthen the distribution system with the focus on reduction of Aggregate Technical & Commercial (AT&C) losses on sustainable basis. As stated above, the R-APDRP scheme was not implemented in the state of Meghalaya so far. The graph below, however, depicts the actual[41] vis-à-vis the projected[42] AT&C losses for the performance audit period:

[41] Actual figures for the years 2006-11 are as per MeECL annual accounts except for 2010-11 which was furnished by the MeECL.
[42] Road Map for reducing AT&C losses under the 11th Five Year Plan (2006-12) prepared by MeECL as per guidelines of the Ministry of Power, Government of India.



It may be seen from the above graph that

- compared to the actual reduction of AT&C losses by 1.42 *per cent* from 41.90 (2006-07) to 40.48 (2010-11), the projection for reduction of AT&C losses by 14.75 *per cent* (36.80 in 2006-07 to 22.05 in 2010-11) during the years 2006-07 to 2010-11 was unrealistic.
- the AT&C loss of 41.90 *per cent* for the year 2006-07 had reduced to all time low in five years period at 28.44 *per cent* in 2008-09 on account of release of ₹ 50 crore as one time settlement by Government of Meghalaya during 2008-09 against the outstanding dues of various Government Departments. AT&C losses steeply increased thereafter and reached again almost at the level of 2006-07 within two years at 40.48 *per cent* in 2010-11.
- on account of the failure to reduce the AT&C losses, the Meghalaya State Electricity Regulatory Commission (MSERC), on truing up the Annual Accounts of the MeECL, had imposed (February 2011) penalty amounting to ₹ 5.81 crore for 2007-08 and ₹ 19.49 crore for 2008-09.

The reasons for such high AT&C losses were attributed (November 2010)[43] by the MeECL to poor billing and collection efficiency, long and overloaded transmission/ sub-transmission/distribution lines, un-metered connection, stopped/defective meters, theft/pilferage of energy. The results of our examination on these aspects are discussed in succeeding paragraphs.

4.2.10.1 A review of Revenue Division-wise AT&C losses during the performance audit period revealed the following position:

[43] The reasons for high AT&C losses have been mentioned in the Tariff Petition for 2011-12.

Table 4.2.8

Sl. No	Name of Revenue Division	AT&C Losses (*per cent*)				
		2006-07	2007-08	2008-09	2009-10	2010-11
1.	Shillong	24.74	23.30	23.45	21.21	24.44
2.	Jowai	58.37	30.78	34.84	23.39	41.34
3.	Western, Umiam	32.34	23.80	33.52	35.24	30.19
4.	Central, Shillong	62.20	55.13	58.39	64.63	59.21
5.	West Garo Hills, Tura	37.98	59.79	46.10	73.37	81.37
6.	East Garo Hills, William Nagar	86.68	82.48	74.41	80.58	86.92
	Total	**41.90**	**33.35**	**39.40**	**37.11**	**40.48**
	Net	**41.90**	**33.35**	**28.44**[44]	**37.11**	**40.48**

Source: MeECL

From the table above, it may be noticed that during 2006-11, in three (serial no. 4 to 6 above) out of six revenue divisions, the AT&C losses were abnormally high ranging between 37.98 *per cent* (West Garo Hills in 2006-07) and 86.92 *per cent* (East Garo Hills in 2010-11). The AT&C losses in remaining three divisions were comparatively low ranging between 21.21 *per cent* (Shillong in 2009-10) and 58.37 *per cent* (Jowai in 2006-07).

We noticed that out of total twenty six sub-divisions under six revenue divisions of the MeECL, the AT&C losses during 2010-11 were lowest (24.44 *per cent*) in case of Shillong Revenue Division which was mainly due to highest billing efficiency of 75.66 *per cent* and collection efficiency of 99.87 *per cent* in Shillong Sub-Division. On the other hand, the highest AT&C losses of 86.92 *per cent* (2010-11) of East Garo Hills was caused mainly due to the lowest billing efficiency of 18.02 *per cent* and collection efficiency of 45.25 *per cent* of its Dalu Revenue Sub-Division.

The MeECL replied (October 2011) that the AT&C losses had been a major cause of concern and accordingly it had undertaken extensive disconnection drive against defaulters, metering of consumers, inspection for theft and unauthorised connections to contain the AT&C losses. The Government also endorsed (November 2011) the views of the MeECL.

However, the seriousness of the concern shown in the replies of the MeECL and Government was not reflected from the increasing trend of AT&C losses particularly after 2008-09.

4.2.11 Consumer metering

Attainment of 100 *per cent* metering was one of the objectives of the R-APDRP scheme. The works of metering of unmetered consumers and replacement of defective and stopped meters under R-APDRP are yet to be taken up. The year-wise status of consumer metering for the performance audit period from 2006-07 to 2010-11 is as follows:

[44] AT&C losses came down to 28.44 *per cent* due to One Time Settlement (OTS) of ₹ 50 crore settled with the State Government against all previous outstandings of MeECL recoverable from Government departments.

Table 4.2.9

		2006-07	2007-08	2008-09	2009-10	2010-11 (provisional)
1.	Total number of consumers (at the end of the year)	230577	262650	256627	258049	270818
2.	Total number of metered consumers	70497	85050	151463	159534	170635
3.	Total number of unmetered consumers	160080	177600	105164	98515	100183
4.	Total number of defective meters	40547	37893	30335	28710	21492

Source: ARR petition for 2010-11 submitted (November 2010) by the MeECL to Meghalaya State Electricity Regulatory Commission.

It may be seen from the above table that

- during 2006-07 to 2010-11, against the growth of consumers by 17.45 *per cent*, percentage of metered consumers had increased from 30.57 *per cent* to 63.01 *per cent*. Despite this, MeECL is still far behind the objective of attaining 100 *per cent* metering by 36.99 *per cent;* and
- the percentage of defective meters to the total metered consumers had improved from 57.52 *per cent* (2006-07) to 12.60 *per cent* (2010-11).

The MeECL stated (October 2011) that efforts were being made to procure meters for replacing the defective meters and metering of all consumers under Special Central Assistance (SCA) and R-APDRP by the year 2013. The Government also endorsed (November 2011) the views of the MeECL.

4.2.12 Operational efficiency

The operational performance of the distribution aspect of the MeECL is judged on the basis of availability of adequate power for distribution, adequacy and reliability of distribution network, minimising line losses, detection of theft of electricity, *etc*. These aspects have been discussed below:

4.2.12.1 Purchase of Power

Meghalaya was power surplus till 1989-90. The situation since then however, has seen a radical reversal. During the five year period 2006-07 to 2010-11, 35 *per cent* of power available for sale was internally generated and balance 65 *per cent* was met from State's share of free supply from Central Government power utilities and power purchased from outside the State.

The demand for energy was increasing year after year in the State. The MeECL however, failed to complete projects (167.5 MW – delay ranging from 13 to 96 month) and add capacity to its generation of power. During the last 19 years, addition (October 2009) to generation capacity was only 1.5 MW.

Assessment of future demand and requirement of power is calculated on the basis of past consumption trends, present requirement, load growth trends and T&D losses and its trend. MSERC[45] approves the sources of purchase of power and the purchase cost based on the estimates made in the Annual Revenue Requirement (ARR) by the MeECL.

The details of demand of power assessed for the State based on the 17th Electric Power Survey (EPS) conducted by CEA, purchase of power approved by MSERC and actual power purchased during the period 2006-07 to 2010-11 in respect of the State as a whole were as under:

Table 4.2.10

(in MUs)

Year	Demand assessed in EPS	Purchases approved by MSERC*	Actual Power purchased	Own generation	Total power available	Power Deficit/ (Surplus)	Excess(+)/ Shortfall (-) in purchase against approved
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(2 – 6)	(8) = (3 – 4)
2006-07	1393	NA	929.30	389.09	1318.39	74.61	NA
2007-08	1513	NA	924.15	663.06	1587.21	(74.21)	NA
2008-09	1644	1043.43	968.92	552.84	1521.76	122.24	(-)74.51
2009-10	1786	NA	947.28	534.79	1482.07	303.93	NA
2010-11	1941	976.01	1129.14	507.89	1637.03	303.97	(+)153.13

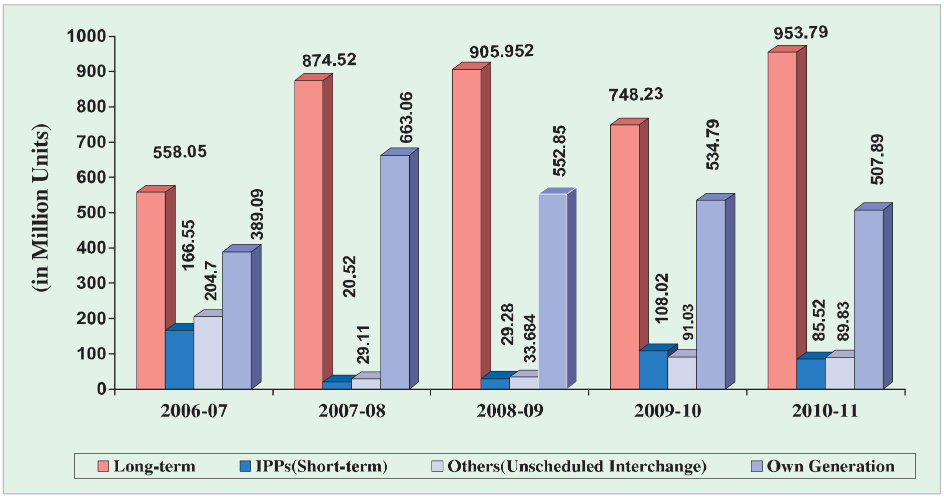
*Approval by MSERC for 2007-08 (₹ 146.87 crore) and for 2009-10 (₹ 223.74 crore) was available only in financial terms.
**NA-Not available *Source: data furnished by MeECL and Tariff order of the MSERC.*

It may be seen from the table that

- the assessed demand for the MeECL had increased by 548 MUs (39.34 *per cent*) from 1393 MUs in 2006-07 to 1941 MUs in 2010-11. As against this, increase in own generation was only 118.80 MUs (30.53 *per cent*) which was not commensurate with the increase in the assessed demand during the said period;
- the state remained largely dependent upon purchase of power though it had slightly decreased from 70.49 *per cent* (2006-07) to 68.98 *per cent* (2010-11) of total power available;
- during 2008-09 and 2010-11, the power purchases approved by MSERC were not sufficient enough to meet the growing power demand of the state; and
- there had been continuous power deficits as compared to the assessed demand as per the Electric Power Survey during the period 2006-07 to 2010-11 except for 2007-08. Further, the quantum of power deficits was increasing over the said years.

For the above purchases, the MeECL entered into long term and short term power purchase agreements with various agencies *viz*., State Generation Companies, Central PSUs, IPPs, *etc*. besides unscheduled interchange (U.I) purchases on need basis. The break-up of the total power purchased under these categories was as follows:

[45] After formation of MSERC in May 2004, first approval was given by MSERC for tariff for 2007-08.



Source: MeECL

It may be seen from the above graph that

- the own generation of the State was insufficient to meet the demand and the State was largely dependent on outside purchases in all five years covered under performance audit.
- during the above mentioned period, long term power purchases continues to be the major source of power for the MeECL for meeting the needs of its consumers; and
- Though the dependence on short term power purchases and unscheduled interchange (U.I) had reduced in 2007-08 and 2008-09 it had again increased during 2009-11 which is not an optimal situation.

The source-wise purchase of power during performance audit period is given in the **Appendix 4.7.** Long term sources of power continued to be the cheapest source of power when compared with short term power purchases and Unscheduled Interchange[46] (UI). The average rate per unit for long term power purchase ranged from ₹ 1.85 (2008-09) to ₹2.38 (2010-11) during the period 2006-07 to 2010-11. As against this, the average per unit rate of short term purchases and U.I ranged between ₹ 2.36 and ₹ 3.97 (except during 2008-09 and 2010-11) and ₹ 2.24 and ₹ 6.35 during the performance audit period (2006-11). Thus, it is quite evident that the MeECL loses substantial amount of money whenever it meets energy requirements through short term purchases and UI purchases.

4.2.12.2 Avoidable Payment of Surcharges

The cost of power purchases, outstanding dues there against and surcharges paid due to delay in payment of power purchase bills for the period 2006-07 to 2010-11 are shown below:

[46] Unscheduled Interchange (U.I.) means the difference between the scheduled drawal of power and actual drawal of power.

Table 4.2.11

(₹ in crore)

Year	Revenue from sale of power[47]	Power purchase	Outstanding amount against power purchase bills at the end of the year	Surcharges paid
2006-07	233.17	206.87	66.17	NA
2007-08	318.15	174.53	89.48	3.96
2008-09	392.51	168.98	132.52	12.95
2009-10	415.74	195.03	161.12	7.41
2010-11	380.17	247.64	165.59	7.49
Total	**1739.74**	**993.05**	**614.88**	**31.82**

Source: data furnished by MeECL

It may be seen from the above:

- the cost of power purchase which constituted 88.72 *per cent* of the MeECL revenue in 2006-07, had come down to 65.13 *per cent* in 2010-11 mainly due to increase in revenue resulting from hike in tariff rates;
- the outstanding amount against power purchase dues had increased from 31.99 *per cent* (3.84 months requirement) in 2006-07 to 66.87 *per cent* (8.02 months requirement) in 2010-11 of the total cost of power purchase; and
- due to delay in release of power purchase bills, the MeECL paid ₹31.82 crore towards surcharges during 2007-08 to 2010-11.

It was observed in audit that increase in outstanding dues and corresponding payments of surcharges was due to the funds constraints being faced by MeECL on account of its failure in fully recovering the cost of operations (discussed **in para 4.2.5, table 4.2.2**) and also poor recovery efficiency of energy bills (discussed in **para 4.2.16**).

4.2.13 Sub-transmission and distribution losses

The distribution system is an important and essential link between the power generation source and the ultimate consumer of electricity. For efficient functioning of the system, it must be ensured that there are minimum losses in sub-transmission and distributing the power. While energy is carried from the generation source to the consumer, some energy is lost in the network. The losses at 33KV stage are termed as sub-transmission losses while those at 11 KV and below are termed as distribution losses. These are based on the difference between energy injected (generated/purchased) into the system and energy billed to consumers. The percentage of losses to available power indicates the effectiveness of distribution system. The losses occur mainly on two counts, *i.e.*, technical and commercial. Technical losses occur due to inherent character of equipment used for transmitting and distributing power and resistance in conductors through which the energy is carried from one place to another. On the other hand, commercial losses occur due to theft of energy, defective meters and drawal of unmetered supply, *etc.*

The table below indicates the energy losses of the MeECL as a whole for last five years ending 2010-11:

[47] Excluding revenue from subsidy/grants

Table 4.2.12

(in MUs)

Sl. No.	Particulars	2006-07	2007-08	2008-09	2009-10	2010-11
1.	Own generation	389.09	663.06	552.84	534.79	507.89
2.	Energy purchased	929.30	924.15	968.92	947.28	1129.14
3.	Energy available for sale	1318.39	1587.21	1521.76	1482.07	1637.03
4.	Energy sold	832.75	1058.10	1044.60	978.85	1104.53
5.	Energy losses (3-4)	485.64	529.11	477.16	503.22	532.51
6.	Percentage of energy losses {(5/3)x100}	36.84	33.34	31.36	33.95	32.53
7.	Percentage of losses allowed by MSERC	36.48	33.21	32.61	28.54	30.02
8.	Excess losses (in MUs)	4.75	2.06	0.00	80.18	41.09
9.	Average realisation rate per unit (in ₹)	3.09	3.32	3.87	4.37	3.56
10.	Value of excess losses (₹ in crore) (8 x9)	1.47	0.68	0.00	35.04	14.63

Source: MeECL

It would be seen from the above table that

- energy loss decreased from 36.84 *per cent* (2006-07) to 31.36 *per cent* in 2008-09 and thereafter increased to 33.95 *per cent* in 2009-10. The energy losses marginally decreased to 32.53 *per cent* in 2010-11;
- aggregate value of energy losses in excess of limit allowed by MSERC amounted to ₹ 51.82 crore[48] during 2006-07 to 2010-11 except for 2008-09;
- As one *per cent* decrease in energy loss could reduce the financial loss of the MeECL of ₹ 5.83 crore[49] annually, reduction in these losses is one of the most significant step towards making the MeECL financially self-sustaining.
- The reasons for such high energy losses were inadequate transformation capacity (discussed in **para 4.2.13.1**), large number of un-metered connections (discussed in **para 4.2.11**) and defective meters (discussed in **para 4.2.15.2**), non installation of capacitor banks (discussed in **para 4.2.13.7**), and theft/pilferage of energy (discussed in **para 4.2.14.3**), *etc.*

4.2.13.1 Inadequate transformation capacity

Transformer is a static device installed for stepping up or stepping down voltage in transmission and distribution of electricity. The energy received at high voltage (132 KV, 66 KV, 33 KV) from primary transmission sub-stations is converted to lower voltage (11 KV) at 33/11 KV distribution sub-stations to make it usable by the consumers. In order to cater to the entire connected load, the transformation capacity should be adequate. The ideal ratio of transformation capacity to connected load is considered as 1:1. The table below indicates the details of transformation capacity at 33/11 KV sub-stations and connected load of the consumers in the State during the period from 2006-11:

48 As per sl.10 of table 4.2.12.
49 One percent of the energy available for sale during the year 2010-11 works out to 16.3703 MUs which multiplied by the cost of realisation @₹3.56 per unit for 2010-11 works out to ₹5.83 crore.

Table 4.2.13

(in MVA)

Year	Transformation capacity	Connected load[50]	Gap in Transformation capacity	Ratio of Transformation capacity to connected load
2006-07	306.05	550.74	244.69	0.56:1
2007-08	327.86	563.07	235.21	0.58:1
2008-09	394.50	526.22	131.72	0.75:1
2009-10	435.39	560.70	125.31	0.78:1
2010-11	441.31	625.07	183.76	0.71:1

Source: MeECL

It could be seen from the table above that the ratio of transformation capacity to total connected load ranged between 0.56:1 (2006-07) and 0.78:1 (2009-10). This represented a wide gap in transformation capacity. Such a high gap of transformation capacity led to overloading of the system resulting in frequent tripping and adverse voltage regulation with consequential higher quantum of energy losses.

4.2.13.2 Non-maintenance of records of Distribution Transformers

The normal life of Distribution Transformers (DTRs) is considered[51] as 25 years. The MeECL did not maintain the history card for each DTR containing full particulars such as the name of the supplier, capacity, voltage ratio, date of issue, date of installation, date of energisation, date of failure, date of expiry of guarantee period, normal life of DTRs, date of repair and subsequent re-commissioning *etc.* In the absence of history card, performance of DTRs and average working life of DTRs could not be verified.

Test check of records of three out of eleven distribution divisions namely West Garo Hills, Tura, South Garo Hills, William Nagar and East Khasi Hills, Shillong, selected in performance audit, revealed that asset registers, age-wise analysis and registers for load distribution and periodic maintenance for transformers were not maintained. Though the MeECL circulated (September 2009) a manual for maintenance of DTRs, which *inter alia* provided for maintenance of records pertaining to periodicity of inspection, action taken there against and reporting on maintenance of DTRs to higher management for monitoring and control no such records were made available to us for verification.

The MeECL accepted (October 2011) that the history cards were not maintained. However, it was intimated that action was being taken to maintain the records for all 33/11 KV DTRs. The Government also endorsed (November 2011) the views of the MeECL.

4.2.13.3 Performance of Distribution Transformers

One of the criteria for the implementation of APDRP in the state was to control the failure of the DTRs and to bring down the level of rate of failure to below one *per cent* per annum. The MSERC which was formed in May 2004, had never fixed any

[50] Converted from MW to MVA adopting 0.80 power factor.
[51] As per The Electricity (Supply) Act, 1948.

norms for failure of DTRs. In absence of MSERC norms for DTR failure, the said criteria of one *per cent* fixed in APDRP has been adopted by us for analysis purpose. The status of failure of DTRs as furnished by the MeECL is depicted in the table below:

Table 4.2.14

Sl. No.	Particulars	2006-07	2007-08	2008-09	2009-10	2010-11
1.	Existing DTRs at the close of the year (in number)	4676	5063	5444	5839	6484
2.	DTR Failures (in Number)	291	273	273	226	265
3.	Percentage of failures	6.22	5.39	5.01	3.87	4.09
4.	Norm allowed in APDRP	1.00	1.00	1.00	1.00	1.00
5.	Excess failure percentage[52]	5.22	4.39	4.01	2.87	3.09

Source: MeECL

It may be seen from the above table that

- the failures of DTRs ranged between 3.87 *per cent* (2009-10) to 6.22 *per cent* (2006-07) during the performance audit period; and
- though the percentage of DTRs failure had shown decreasing trend up to 2009-10 (3.87 *per cent*) with marginal increase in 2010-11 (4.09 *per cent*), the failure rate with reference to the laid down criteria of APDRP continued to be high.

4.2.13.4 The data presented in Table 4.2.14 above gives a comparatively satisfactory picture on failure of transformers. The authenticity of said data, however, came under doubt after reviewing the year-wise data of two Work Centres of the MeECL (Sumer and Mendipather) relating to the transformers received for repair and individual data on failure of transformers of three Distribution divisions of the MeECL (*viz.* East Khasi Hills, West Garo Hills and East Garo Hills).

Records available at the Work Centre, Sumer and Mendipather[53] which undertakes the repairing of DTRs revealed the following:

Table 4.2.15

Year	Existing DTRs at the close of the year (in number)	Number of Transformers received for repair		Total	Percentage of Transformers received for repair
		SUMER	MENDIPATHER[54]		
2006-07	4676	332	-	332	7.10
2007-08	5063	389	-	389	7.68
2008-09	5444	290	-	290	5.32
2009-10	5839	231	157	388	6.64
2010-11	6484	231	122	353	5.44

Source: MeECL

It may therefore be seen from the above table that during each of the five years covered in the performance audit, the actual number of failed DTRs received at the work centres remained much higher than that intimated by the MeECL and presented under **Table 4.2.14**.

[52] Excess failure percentage has been calculated based on one *per cent* failure determined under APDRP.
[53] The information in respect of Mendipather unit (which was not selected in audit) was furnished by Management.
[54] Mendipather work centre started functioning in 2009-10.

- on review of records[55] pertaining to DTRs of three distribution divisions, we further noticed that failure of DTRs was abnormally high ranging from 10.45 *per cent* to 32.48 *per cent* particularly during 2010-11 as shown below:

Table 4.2.16

Distribution divisions	Period for which data received	Total number of DTRs	DTRs repaired/ sent for repair	Percentage of DTRs repaired/ sent for repair
East Khasi Hills	April 2010 to March 2011	775	81	10.45
West Garo Hills	January, March, April, July to September 2010 and March 2011	859	279	32.48
East Garo Hills	April 2010 to March 2011	953	224	23.50

Source: MeECL

In view of above, the MeECL needs to take urgent action to remedy the system lacuna stated above so as to have proper monitoring, control and reporting of actual status of transformer to improve its performance.

4.2.13.5 Delay in repair of DTRs

The MeECL undertakes repair of damaged transformers both in-house and through outside agencies. As per the Meghalaya State Electricity Regulatory Commission (Standards of Performance) Regulations, 2006, the cases of failure of transformers are to be attended to in 24 hours and 72 hours in respect of town areas and rural areas respectively. However, a review of the records of the Work Centre, Sumer revealed that:

- There was no physical verification of the DTRs stock in hand for repairs by the work centre;
- Fifty six transformers[56] received for repair were lying at the work centre as on June 2011 (as per the job card register maintained at the Work Centre, Sumer) without any inspection/repair for three to five years;
- The year wise data relating to the numbers of DTRs received and repaired at the work centre, Sumer is given below:

Table 4.2.17

Year	DTRs in hand for repair at the beginning[57]	Number of DTRs received for repair during the year	Total DTRs in hand for repair	Number of DTRs actually repaired	Balance DTRs yet to be repaired	Percentage of DTRs yet to be repaired to total DTRs in hand for repair
2007-08	-	389	389	127	262	67.35
2008-09	262	290	552	140	412	74.64
2009-10	412	231	643	164	479	74.49
2010-11	479	231	710	133	577	81.27
Total				**564**	**577**	

Source: MeECL

[55] Records to the extent as made available by the MeECL head office, Shillong as per data submitted by the concerned divisions to them.
[56] Fifty transformers (11/0.2 level) of various capacities and six transformers (33/11 KV level) of 1.6 MVA capacity
[57] Complete figures for 2006-07 and opening figures for 2007-08 were not available.

From the above table it could be seen that out of total 1141 DTRs received for repair during 2010-11, Work Centre, Sumer, could repair and dispatch only 564 transformers (49.43 *per cent*) thereby leaving a balance of 577 numbers of unattended DTRs (81.27 *per cent*) which had largely crossed the maximum time limit of 72 hours for return of repaired transformers and the delay was ranging from one month to five years. The shortfall in repairing of transformers was mainly due to shortage of manpower and non availability of materials in time which indicated lack of effective management control in MeECL.

The MeECL attributed (October 2011) the non attendance of the damaged transformers to shortage of manpower. The Government also endorsed (November 2011) the views of the MeECL.

The MeECL thus, needs to take urgent action for proper deployment of its manpower to ensure timely repairing and availability of transformers in the interest of healthy distribution system.

4.2.13.6 As stated above, there was a huge backlog of repair of transformers while on the other hand the MeECL was making fresh purchases to meet its requirement as shown below:

Table 4.2.18

Particulars	2007-08	2008-09	2009-10	2010-11
Number of DTRs purchased during the year	320	369	495	185
Number of DTRs lying un-repaired at the Work Centre, Sumer	262	412	479	577
Percentage of un-repaired DTRs to new purchases	81.88	111.65	96.77	311.89

From the above table it could be seen that during the period under performance audit,

- during the period 2007-08 to 2010-11, the percentage of unrepaired DTRs to the new purchase of DTRs made was increasing abnormally from 81.88 *per cent (2007-08)* to 311.89 *per cent* (2010-11); and
- out of the total 1369 DTRs purchased during 2007-11, purchases to the extent of 577 DTRs (42 *per cent*) could have been avoided had the Work Centre, Sumer timely cleared the backlog of un repaired DTRs existing as on 31 March 2011.

4.2.13.7 Capacitor Bank

Capacitor Bank (CB) improves power factor by regulating the current flow and voltage regulation. In the event of voltage falling below normal, the situation can be set right by providing sufficient capacity of CBs to the system as it improves the voltage profile and reduces dissipation of energy to a great extent thereby saving loss of energy. Ideally, CB should be installed at each substation.

The MeECL did not have any plan for installation of CBs. We noticed that out of 112 substations (33/11 KV) as on March 2011, the MeECL had installed (June 2007) CB

(15 MVAR) only at one sub-station at EPIP Rajabagan substation under Byrnihat Distribution Division.

As per the guidelines for reduction of transmission and distribution losses issued (February 2001) by the Central Electricity Authority (CEA), the voltage variations should be within (+/–) 6 *per cent*. However, no monitoring and reporting on voltage variations on regular basis was seen in place during the audit. In case of two substations (Nangalbibra and Baghmara[58] under East Garo Hills Distribution Division), where data for October 2009 were made available to audit, we noticed that voltage variation was beyond the permissible level as given below:

Table 4.2.19

Sl. No.	Name of Substation	Period	Norm at 33 KV level considering (+/–) 6 *per cent*	Actual at 33 KV level	Norm at LT level (230 volts) considering (+/–) 6 *per cent*	Actual at LT level (230 volts)
1.	Nangalbibra	20 to 31 October 2009	31 to 35	27 to 31	-	-
2.	Baghmara	27 to 31 October 2009	-	-	216 to 244	184 to 215*

*Source: voltage regulation report submitted by the concerned Assistant Executive Engineer to East Garo Hills Distribution Division. *Only on one occasion the voltage crossed 215 and reached 228 volts.*

This indicates the need for regular monitoring of voltage at various sub-stations and installation of CBs.

4.2.13.8 Payment of Reactive Power Charges even after installing Capacitor Banks[59]

As per Clause 6.6 of Indian Electricity Grid Code, in case of low voltage in the grid, the purchaser has to pay Volt Ampere Reactive (VAR) charges to the North Eastern Regional Load Despatch Centre (NERLDC).

The MeECL was drawing power through Kahilipara-Umtru feeder[60]. As the feeder was having low power factor[61], NERLDC requested (September 2005) the MeECL to install HT Capacitor banks (CBs) to relieve the low power factor problem in Kahilipara. Accordingly, the MeECL placed (April 2006) orders at a cost of ₹ 2.81 crore for procurement of four CBs[62] which were installed at Byrnihat, Norbong and Rajabhagan substations during April-June 2007. The MeECL had expected that the installation of CBs would eradicate the payment of VAR charges. We, however, noticed that three CBs were not functioning since August 2007 (two CBs) and May 2008 (one CB) due to damages caused due to fire. It was stated that one CB installed at Byrnihat 33/11 KV SS was not working (June 2011) and request for replacing the voltage relays of the other two failed CBs were sought for (December 2010).

[58] These are grid substations. The data were compared to establish the high incidence of voltage variations
[59] Capacitor bank improves power factor by regulating the current flow and voltage regulation.
[60] Kahilipara of Assam State Electricity Board-Umtru of the MeECL feeder.
[61] Power factor (PF) is the ratio of the real power to apparent power and represents how much real power the electrical equipment utilises.
[62] The four capacitor banks installed include one CB at 33 KV level (mentioned in **para 4.2.13.7**) and the remaining three at 132 KV level.

However, we did not notice any records indicating effective steps for repairing of these CBs (June 2011).

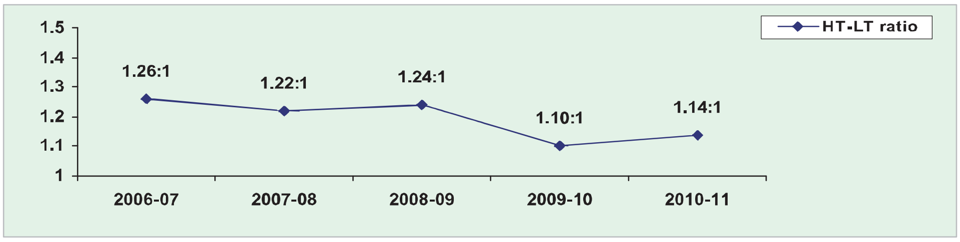
As such, the payment of VAR charges could not be stopped and the MeECL had to incur expenditure of ₹ 0.54 crore[63] during 2007-08 to 2010-11. Further, investment of ₹ 2.81 crore on CBs also remained unfruitful.

4.2.14 Commercial losses

The majority of commercial losses relate to consumer metering and billing besides pilferage of energy. While the metering and billing aspects have been covered under consumer metering (**para 4.2.11**) and billing efficiency (**para 4.2.15**) respectively, the other observations relating to commercial losses are discussed below.

4.2.14.1 Implementation of LT less system

High voltage distribution system is an effective method of reduction of technical losses, prevention of theft, improved voltage profile and better consumer service. The GOI had also stressed (February 2001) the need to adopt LT less system of distribution through replacement of existing LT lines by HT lines to reduce the distribution losses. The HT-LT ratio of the MeECL over the performance audit period is depicted in the graph below:



It may be seen from the above graph that HT/LT ratio had deteriorated from 1.26:1 in 2006-07 to 1.10:1 in 2009-10 and marginally improved to 1.14:1 in 2010-11. The fall in the HT-LT ratio up to 2009-10 was due to construction of LT lines (3051.60 CKM) by more than 1.65 times of HT lines (1841.50 CKM) during 2006-10 contrary to directives of GOI to move towards LT less system.

4.2.14.2 Conversion of LT Conductors into Aerial Bunch Cables

Aerial Bunch Cables prevent illegal tapping of low voltage distribution lines and help in reducing overloading of DTRs and maintain voltage of the supply. We observed that the MeECL had not converted any of the LT conductors into Aerial Bunch Cables during or prior to the performance audit period, which is indicative of lack of adequate effort by MeECL towards strengthening the transmission and distribution system and reducing the distribution losses.

[63] ₹ 0.07 crore, ₹0.04 crore, ₹ 0.10 crore and ₹ 0.33 crore towards VAR charges during 2007-08, 2008-09, 2009-10 and 2010-11 respectively.

4.2.14.3 High incidence of theft

Performance of Meter Testing and Inspection and Vigilance Sub-divisions

Substantial commercial losses are caused due to theft of energy by tampering of meters by the consumers and unauthorised tapping/hooking by the non-consumers. As per section 135 of Electricity Act 2003, theft of energy is an offence punishable under the Act. The Meter Testing and Inspection and Vigilance sub-division of the MeECL was entrusted with the work of inspection of illegal consumers, periodical checking of consumer installations, detecting cases of theft.

As per the procedure laid down (May 2007) by the MeECL, the Assistant Executive Engineer (AEE) of each sub-division is authorised to carry out regular inspection as well as surprise inspection of any premises of all categories of consumers based on a work plan to conduct raids by identifying such consumers/areas where large scale theft is suspected. We noticed that no such work plan was prepared by the sub-divisions. The disconnection activities were carried out as and when information was received from other revenue divisions/sub-divisions and not as a regular exercise due to shortage of manpower in MTI sub divisions. Hence, such surprise inspections did not yield the desired results as would be evident from the position of inspections conducted during 2006-07 to 2010-11 which is mentioned below:

Table 4.2.20

Year	Number of checking	Theft cases	Assessed amount (₹ in lakh)	Amount Realised (₹ in lakh)	Total number of consumers	Percentage of consumers checked
2006-07	324	74	2.34	0.18	230577	0.14
2007-08	1372	782	10.80	2.47	262650	0.52
2008-09	1464	675	10.26	8.90	256627	0.57
2009-10	3566	1662	87.58	38.18	258049	1.38
2010-11	4913	2592	62.77	32.98	270818	1.81
Total	**11639**	**5785**	**173.75**	**82.71**		

In this connection, we observed that

- the MeECL did not fix up targets for checking of meters and detection of theft cases during the period under performance audit;
- against the assessed amount of ₹ 1.74 crore, the amount realised was only ₹ 0.83 crore (47.70 *per cent*) of the assessed amount. Though the number of consumers checked during each year has improved gradually, it remained negligible ranging from 0.14 *per cent* to 1.81 *per cent* during 2006-11.

The MeECL replied (October 2011) that the assessment amount was provisional and the achievements were low since the consumers were making appeals to the appellate authority for waiver of penalties. The Government also endorsed (November 2011) the views of the MeECL.

The fact however remains that the MeECL needs to substantially increase its Meter Testing and Investigation (MTI) & Vigilance activities.

4.2.14.4 Information was called for from all the six MTI and Vigilance subdivisions regarding amount realised by way of fees/penalties and expenditure incurred on their establishment. Only three sub-divisions furnished the information[64] as under:

Table 4.2.21

Name of the MTI & Vigilance sub-division	Amount realised (₹ in lakh)	Expenditure incurred by the division (₹ in lakh)	Percentage of collection against expenditure
Central, Shillong	7.80	52.68	14.81
Jowai	8.36	44.99	18.83
Shillong	54.79	58.73	93.29
Total	**70.95**	**156.40**	**45.36**

Source: MeECL

From the above it could be seen that in respect of three out of six MTI & Vigilance Sub-Divisions the collection against the actual expenditure incurred during the performance audit period was very low except in case of Shillong division. Thus, the Meter Testing and Inspection and Vigilance activities were not commensurate with the number of consumers and the expenditure incurred for maintaining these divisions did not add value to the MeECL's performance.

The MeECL stated (October 2011) that the sub-division had been assigned with other works *viz.*, replacement of defective and installation of new meters, testing of meters etc and its activities of the sub-division were restricted due to the geographical constraints. The Government also endorsed (November 2011) the views of the MeECL.

The MeECL, therefore, should make efforts for restructuring of the MTI and Vigilance Sub-Divisions so that the vigilance activities could be extended to control theft/pilferage of energy in the State for reduction of AT&C losses.

4.2.15 Billing Efficiency

As per the prevalent procedure, the reading of energy consumption of each consumer at the end of the notified billing cycle is to be taken. After obtaining the meter readings, the MeECL issues bills to the consumers for consumption of energy. Sale of energy to metered categories consists of two parts *viz.* metered and assessed units. The assessed units refer to the units billed to consumers in case meter reading is not available due to meter defects, door lock *etc.*

The MeECL is having two billing system *viz.* computerised billing and Bradma billing. The Bradma bill is prepared by meter readers on the spot whereas computerised billing is done centrally from the MeECL, Head Office at Shillong based on the data furnished by the revenue divisions in this regard. The Bradma bill is

[64] MTI and Vigilance sub-divisions namely Umiam, West Garo Hills, Tura, and William Nagar did not furnish the information.

issued generally for those consumers with a connected load less than 5 KW while the computerised bills are issued to consumers with a connected load more than 5 KW.

The efficiency in billing of energy lies in distribution/sale of maximum energy by the MeECL to its consumers and realising the revenue there from in time.

We observed from the commercial data submitted by the field divisions that despite there being evidences of billing on assessment basis against large number of consumers with defective meters, there was no system of compiling the data to segregate the metered sales and assessed sales. In the absence of such a system, the MeECL lacked control mechanism to take action for excessive assessed sales, if any, with reference to the metered sales. We further observed that even MSERC did not prescribe any norm for the assessed sales as a percentage of total metered sales. The MeECL accepted (November 2011) the fact of non existence of such a system but did not indicate to take any corrective measures in this regard.

4.2.15.1 Unbilled Consumers

As per clause 31 of the terms and conditions and supply with schedule of miscellaneous charges (June 1989), the MeECL should bill the consumers within a reasonable time interval. The MeECL is in practice of sending/issuing electricity bills to all consumers on monthly basis. Year wise position of unbilled consumers for the last five years ending 31 March 2011 was not furnished by the MeECL. However, billing data of consumers of eight sub divisions under the selected two out of six revenue divisions (Western Revenue Division, Umiam and East Garo Hills Revenue Division, Williamnagar) were analysed for the year 2009-10 and 2010-11 and position of unbilled consumers revealed as follows:

Table 4.2.22

	Apr-09	**May-09**	**Jun-09**	**Jul-09**	**Aug-09**	**Sep-09**	**Oct-09**	**Nov-09**	**Dec-09**	**Jan-10**	**Feb-10**	**Mar-10**
Total number of consumers	44138	44886	44986	45244	45296	50704	50405	51393	51703	51621	38505	51749
Total number of consumers billed during the month	40015	40576	40676	41141	41013	41425	45854	47820	43067	43501	32560	41774
Unbilled consumers	**4123**	**4310**	**4310**	**4103**	**4283**	**9279**	**4551**	**3573**	**8636**	**8120**	**5945**	**9975**
Percentage of Unbilled consumers	**9.34**	**9.60**	**9.58**	**9.07**	**9.46**	**18.30**	**9.03**	**6.95**	**16.70**	**15.73**	**15.44**	**19.28**
	Apr-10	**May-10**	**Jun-10**	**Jul-10**	**Aug-10**	**Sep-10**	**Oct-10**	**Nov-10**	**Dec-10**	**Jan-11**	**Feb-11**	**Mar-11**
Total number of consumers	52946	53392	54983	52178	52322	54934	55710	56098	56245	56256	57184	58041
Total number of Meter consumer billed during the month	34268	35282	38162	33796	33550	34797	35437	35582	31652	32625	33384	35015
Unbilled consumers	**18678**	**18110**	**16821**	**18382**	**18772**	**20137**	**20273**	**20516**	**24593**	**23631**	**23800**	**23026**
Percentage of Unbilled consumers	**35.28**	**33.92**	**30.59**	**35.23**	**35.88**	**36.66**	**36.39**	**36.57**	**43.72**	**42.01**	**41.62**	**39.67**

Source: MeECL

We observed that the percentage of consumers which remained unbilled each month to the total consumers had increased from 9.34 *per cent* in April 2009 to 39.67 *per cent* in March 2011 despite the franchisees being engaged by MeECL for billing in rural areas and issue of new connections only with meter.

The main reason for non-billing the consumers on regular basis were acute shortage of meter readers. The MeECL needs to take measures for optimal deployment of its manpower and effective monitoring of the system so that deferment in collection of revenue against unbilled consumers could be reduced.

4.2.15.2 Defective meters

The MeECL had communicated (November 2010) to MSERC that 12.60 *per cent* (April 2010) of its metered consumers were having defective meters (21492). The breakup of the defective meters in respect of two selected revenue out of six revenue divisions for the period 2009-10 and 2010-11 were as given below:

Table 4.2.23

Year	Western Revenue Division, Umiam				East Garo Hills Revenue Division, Williamnagar				Total			
	Total consu-mers	Metered consu-mers	Defec-tive meters	Percentage of defective meters to total metered consumers	Total consu-mers	Metered consu-mers	Defective meters	Percentage of defective meters to total metered consumers	Total consu-mers	Me-tered consu-mers	Defective meters	Percentage of defective meters to total metered consumers
2009-10	28022	22517	1571	6.98	23727	16425	9467	57.64	51749	38942	11308	29.04
2010-11	32964	20560	2714	13.20	25077	16403	11309	68.94	58041	36963	14023	37.94

Source: MeECL

From the above table it could be seen that the percentage of defective meters to total metered consumers in respect of East Garo Hills Revenue Division, Williamnagar was abnormally high at 57.64 *per cent* (2009-10) and 68.94 *per cent* (2010-11) in comparison with the overall percentage of 12.60 *per cent* for the MeECL as a whole as communicated to MSERC. The reasons for the failure of meters were attributed by the MeECL for overload and manufacturing defects. Due to high level of defective meters, the MeECL continued to have higher technical losses as actual consumption was always more than the assessment made.

The MeECL replied (October 2011) that the process of replacing all defective meters had been taken up through the Special Central Assistance Scheme and R-APDRP. The Government also endorsed (November 2011) the views of the MeECL.

4.2.15.3 Loss due to incorrect billing

As per the MeECL tariff Clause 3, in case the maximum demand of EHT/HT consumers recorded in any month is lower than 75 *per cent* of the contract demand, billing demand is to be considered at 75 *per cent* of the contract demand or 80 *per cent* of the highest demand established during the preceding 11 months. Further, any change in contract demand is to be made effective after receipt of certified test report from the consumer and its due acceptance by the MeECL. Scrutiny of bills of consumers under Western Revenue Division for the period April 2009 to March 2011 revealed that two industrial consumers were allowed temporary surrendering of load even though terms of agreement did not contain any such provision and contract demand was to remain unchanged during the validity of the agreement.

In the first case, the consumer (Jaintia Ferro Alloys (JFA)) was having contract demand of 10,350 KVA and should have been billed at least for 7762.5 KVA (i.e 75 *per cent* of contract demand). We noticed that during 2009-10 and 2010-11, JFA was billed based on the actual demand ranging between 4000 KVA (2009-10) and 6350 KVA (2010-11) against the minimum required billing for 7762.5 KVA. As a result, MeECL lost revenue to the extent of ₹ 0.77 crore on this account.

In a similar case, the consumer (Bimla Ispat Alloys limited (BIAL)), against minimum required billing for 5250 KVA (i.e 75 *per cent* of the contract demand of 7000 KVA), during the period from May 2010 to March 2011 bills were raised based on the actual demand ranging between 3216 KVA and 876 KVA which resulted in a revenue loss of ₹ 0.23 crore[65].

Thus, on account of incorrect billing, the division had lost the revenue to the tune of ₹ 1 crore which also turned out to be an undue favour to these consumers.

4.2.15.4 Non-disconnection of power of consumers running with low power factor

As per the Electricity Tariff, if the average monthly power factor[66] of the consumers installation falls below 0.85, he shall, for each one *per cent* of shortfall, pay to the MeECL at the rate of ₹ 2 per KVA per month of the maximum demand as compensation charges. The above charges shall be applicable for the power factor within the range of 0.84 to 0.70. If the power factor falls below 0.70, supply to such consumer shall be disconnected without notice.

Scrutiny of the bills of the consumers under Umiam Revenue Sub-Division of Western Revenue Division, Umiam for the period 2009-11 revealed that twenty consumers were allowed to draw power with power factor less than 0.70 (ranging from 0.01 to 0.69). Due to non-disconnection in these cases as specified in the tariff, the MeECL had to supply 5.96 lakh units[67] which went unrecorded due to reactive power from these consumers thereby resulting in loss of revenue to the tune of ₹ 0.23 crore.

In this regard, we observed that in the 5th meeting of the Meghalaya State Advisory Committee[68] held in April 2010 it was proposed that calculation of compensation charge for low power factor should be made by billing on KVAH[69] units at the rate

[65] Amount to be billed based on 75 *per cent* of contract demand (₹ 55,70,250) – Actually billed (₹ 32,34,520)= ₹ 23,35,730

[66] Power factor (PF) is the ratio of the real power to apparent power and represents how much real power the electrical equipment utilises.

[67] [(Required power factor (0.85) – Recorded Power Factor of the consumer) / Recorded Power Factor X 100 X recorded units (KWH)] minus the actual penalty levied

[68] constituted in February 2007 under Section 87 of the Electricity Act 2003

[69] KVAH means Kilovolt Ampere Hours

applicable for KWHR[70] units. The MeECL was, therefore, to ensure that KVAH meters were installed in the premises of all consumers so as to avoid huge revenue losses on this account. No progress, however, was made by the MeECL in this direction (October 2011).

4.2.16 Revenue collection efficiency

As revenue from sale of energy is the main source of income of MeECL, prompt collection of revenue assumes great significance. The table below indicates the balance outstanding at the beginning of the year, revenue assessed during the year, revenue collected and the balance outstanding at the end of the year during last five years ending 31 March 2011:

Table 4.2.24

(₹ in crore)

Sl. No.	Particulars	2006-07	2007-08	2008-09	2009-10	2010-11
1.	Balance outstanding at the beginning of the year	199.24	201.01	209.22	252.35	329.43
2.	Revenue assessed/billed during the year	233.17	318.15	392.51	415.74	380.17
3.	Total amount due for realisation (1+2)	432.41	519.16	601.73	668.09	709.60
4.	Amount realised during the year	225.03	303.29	324.65	315.95	278.59
5.	Amount written off during the year	6.37	6.65	24.73	22.71	13.77
6.	Balance outstanding at the end of the year	201.01	209.22	252.35	329.43	417.24
7.	Percentage of amount realised to total dues (4/3)	52.04	58.42	53.95	47.29	39.26
8.	Arrears in terms of No. of months assessment /billed {6/(2/12)}	10.34	7.89	7.71	9.51	13.17

Source: MeECL

We observed from the above details that:

- percentage of amount realised to total dues at the end of the year had decreased from 52.04 (2006-07) to 39.26 (2010-11);
- balance dues outstanding at the end of the year increased from ₹ 201.01 crore in 2006-07 to ₹ 417.24 crore in 2010-11; and
- balance amount outstanding at the end of year in terms of number of months assessment had improved from 10.34 in 2006-07 to 7.71 in 2008-09 but deteriorated thereafter to 9.51 in 2009-10 and 13.17 in 2010-11.

4.2.16.1 Analysis of outstanding dues

The outstanding dues in respect of the two selected revenue divisions (East Garo Hills Revenue Division, Williamnagar and Western Revenue Division, Umiam) out of six revenue divisions for the period 2006-07 to 2010-11 are given below:

Table 4.2.25

(₹ in crore)

Sl. No.	Name of Revenue Sub-Division	2006-07	2007-08	2008-09	2009-10	2010-11
East Garo Hills Revenue Division, Williamnagar						
(i)	Bajengdoba Sub-Division	0.59	0.04	0.04	0.09	0.34
(ii)	Nangalbibra Sub-Division	0.65	0.78	1.08	1.24	1.48
(iii)	Williamnagar Sub-Division	1.94	3.34	2.66	4.13	5.90

[70] KWHR means Kilowatt Hours

Sl. No.	Name of Revenue Sub-Division	2006-07	2007-08	2008-09	2009-10	2010-11
(iv)	Mendhipathar Sub-Division	4.91	7.61	5.38	5.60	11.63
(v)	Baghmara Sub-Division	1.13	1.43	1.68	2.01	2.40
	Total	**9.21**	**13.20**	**10.83**	**13.07**	**21.75**
Western Revenue Division, Umiam						
(i)	Byrnihat Sub-Division	7.40	13.33	41.96	100.17	125.56
(ii)	Nongpoh Sub-Division	1.57	3.82	7.79	4.33	6.11
(iii)	Umiam Sub-Division	5.58	4.37	4.44	14.15	17.93
	Total	**14.55**	**21.52**	**54.19**	**118.65**	**149.60**
	Grand Total	**23.76**	**34.72**	**65.02**	**131.72**	**171.35**

Source: MeECL

From the above table it could be seen that the outstanding revenue for both the divisions were showing an increasing trend particularly for Western Revenue Division, Umiam which was mainly due to low level of collection efficiency of these sub-divisions.

As per tariff clause 19, if a consumer neglects or refuses to pay the electric bills for a period of one month from the due date, the MeECL shall serve a notice of 15 clear days and disconnect the electric supply after expiry of the notice period. Review of outstanding dues of the two Revenue Divisions revealed the following:

- During 2008-09, the Government of Meghalaya released ₹ 50 crore as one time settlement against the outstanding dues of ₹ 80.31 crore pertaining to various Government departments. While releasing the payment to the MeECL, the Government of Meghalaya had categorically instructed (July 2008) that in case of nonpayment of electricity dues in future, necessary action for disconnection of power supply might be taken against the defaulting Government Departments as per Section 56 of the Electricity Act 2003. However, during the performance audit period, in case of Western Revenue Division, Umiam and East Garo Hills Revenue Division, the outstanding dues as on 31 March 2011 pending against the Government departments was to the tune of ₹ 0.73 crore and ₹ 1.07 crore respectively. No action was however, taken by the MeECL for disconnection of power supply in cases of such default. The MeECL in their reply endorsed by the Government stated (June 2011) that implementation of stringent measure was not always feasible. Reply is not acceptable as inaction on part of MeECL in disconnecting the power of defaulting Government Departments was contrary to the Government's instructions which proved to be against the financial interests of MeECL.
- In case of Western Revenue Division, Umiam, 79 permanent disconnected cases with outstanding of ₹ 22.45 crore did not deposit their dues for four to 200 months. The MeECL did not initiate legal action to recover the dues against these consumers except in case of three consumers which were referred to legal cell of MeECL without furnishing complete information on defaulting cases.
- Further, in case of Western Revenue Division, the total number of consumers with an outstanding of more than one lakh and who were not disconnected increased

from 51 consumers during 2006-07 to 77 consumers during 2010-11, which is indicative of inadequate efforts by MeECL in recovering old dues from consumers with high outstandings.

The MeECL stated (October 2011) that regular monitoring on disconnection drive was being now undertaken by the higher authorities to bring down the level of outstanding dues. The Government also endorsed (November 2011) the views of the MeECL.

4.2.17 Financial Management

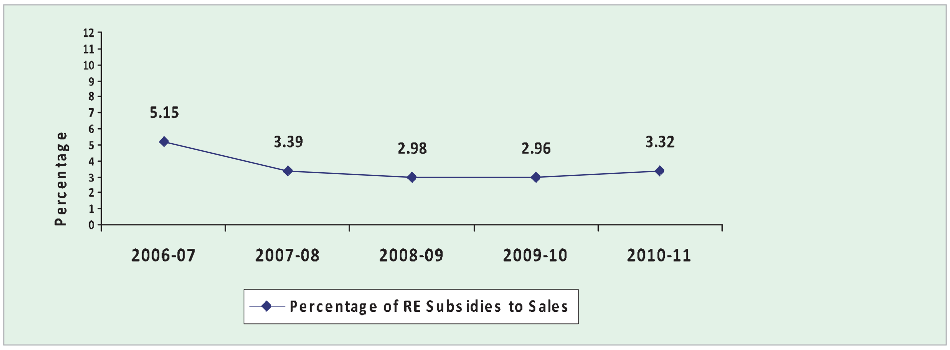
Efficient fund management serves as a tool for decision making, for optimum utilisation of available resources and borrowings at favourable terms at appropriate time. The financial management of the MeECL includes revenue collection, billing, borrowings, grants, transfer of funds, interest recovery/payments, restructuring of loans, security deposits, bank reconciliations and other related transactions. While the revenue and billing have dealt in the preceding paragraphs, the other areas are discussed below:

4.2.17.1 Subsidy Support and Cross Subsidisation

There is an urgent need for ensuring recovery of cost of service from consumers to make the power sector sustainable. The State Government is providing subsidy with a view to ensure supply of power to specific category of consumers at concessional rates of tariff.

4.2.17.2 Subsidy Support

The MeECL was getting subsidies on power purchases[71] and Rural Electrification (RE) subsidy[72] only. The graph below indicates the total of RE subsidy from State Government as a percentage of sales[73] for the last five years ending 31 March 2011.



Source: MeECL

[71] Subsidy on power purchase is sanctioned by the Government of Meghalaya to the MeECL to discharge its commitments of power purchase.

[72] RE subsidy is claimed by the MeECL from the State Government from the year 1976-77 to compensate the operational losses suffered by the MeECL on the implementation of Rural electrification scheme i.e., the cost of rural electrification less the revenue earned from those villages.

[73] There is no tariff subsidisation in the state of Meghalaya.

It is evident from the above that subsidy support from the Government was showing a decreasing trend over the performance audit period except marginal increase of 0.36 *per cent* during 2010-11. The percentage of subsidies to sales decreased from 5.15 *per cent* in 2006-07 to 3.32 *per cent* in 2010-11. Further, against the subsidy claim of ₹ 313.88 crore over the performance audit period[74] on above account, only ₹ 61.13 crore was actually received from the State Government as detailed in the table below:

Table 4.2.26

(₹ in crore)

Particulars	2006-07	2007-08	2008-09	2009-10	2010-11
Opening balance	137.27	155.15	180.77	201.89	218.60
Add: claimed by the MeECL from State Government during the year	29.88	36.42	32.82	29.02	48.47
Less: Received during the year[75]	12.00	10.80	11.70	12.31	12.32
Closing balance	155.15	180.77	201.89	218.60	254.74

Source: MeECL

It may be seen from the table above that

- the closing balance of subsidy receivable had increased over the performance audit period indicating that the State Government was not fully reimbursing the subsidy becoming due in each year during 2006-11.
- the outstanding dues from the State Government accumulated from ₹ 155.15 crore in 2006-07 to ₹ 254.74 crore in 2010-11.

The non reimbursement of the subsidy by the State Government was adversely affecting the financial health of the MeECL. Further, as the financial position of the MeECL was not very sound, the same may not get finance from outside agencies also. Therefore, viability of the MeECL was heavily dependent on the Government support. We noticed that there was no commitment to release the outstanding subsidy by the State Government and the reasons for non-release of the subsidy were also not available in the records furnished to audit.

4.2.17.3 Cross subsidisation

Section 61 of Electricity Act 2003 stipulates that the tariff should progressively reflect the average cost of supply (ACOS) of electricity and also reduces cross subsidy in a phased manner as specified by the MSERC. National Electricity Plan (NEP) envisaged that the tariff of all categories of consumer should range within plus or minus 20 *per cent* of the ACOS by the year 2010-11. The position as regards cross-subsidies in various major sectors is shown in **Appendix 4.8**. From the **Appendix,** it may be observed that among the categories of consumers availing maximum benefits of cross subsidies were Domestic (LT) and Agricultural who availed more than 20 *per cent* cross subsidies during all the five years from 2006-11. The highest contributors to cross subsidies by way higher tariff than ACOS were Commercial LT and

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[74] Including the opening balance of ₹ 137.27 crore as on 1 April 2006.

[75] Represents RE subsidy only and does not include power purchase subsidy received during the year 2006-07 and 2007-08 at ₹ 12.15 crore and ₹ 22 crore respectively.

Industrial LT from 2006-07 to 2009-10 but availed cross subsidies of more than 20 *per cent* of ACOS in 2010-11. Surprisingly, during 2010-11, only HT others category of consumers was the only contributor towards cross subsidy and all the remaining categories were benefited by more than 20 *per cent* (except others LT, which availed cross subsidy to the extent of 18.16 *per cent* during this year). Thus, target of bringing the tariff of all the category of consumers within plus or minus 20 *per cent* of ACOS by the year 2010-11 as envisaged in the National Tariff Policy was not achieved by MeECL. Hence, there is an urgent need to correct this imbalance by progressively and gradually reducing the existing cross-subsidy levels.

4.2.18 Tariff Fixation

The financial viability of the MeECL depends upon generation of surplus (including fair returns) from the operations to finance their operating needs and future capital expansion programmes by adopting prudent financial practices. Revenue collection is the main source of generation of funds for the MeECL. While other aspects relating to revenue collection have been discussed in preceding paragraphs, the issues relating to tariff are discussed herein under.

The tariff structure of the MeECL is subject to revision approved by the Meghalaya State Electricity Regulatory Commission (MSERC)[76] after the objections, if any, received against Annual Revenue Requirement (ARR) petition to be filed by it within 121 days before the commencement of the respective financial year. The MSERC accepts the application filed by the MeECL with such modifications/conditions as may be deemed just and appropriate and after considering all suggestions and objections from public and other stakeholders. The table below shows the due date of filing ARR, actual date of filing, date of approval of tariff petition and the effective date of the revised tariff:

Table 4.2.27

Year	Due date of filing	Actual date of filing	Delay in days	Date of approval	Effective date
2007-08	30/11/2006	18/06/2007	198	17/12/2007	01/01/2008
2008-09	30/11/2007	31/03/2008	120	30/09/2008	01/10/2008
2009-10[77]	30/11/2008	28/11/2008	-	30/11/2009	01/12/2009
2010-11	30/11/2009	12/02/2010	72	23/8/2010	01/09/2010

It may be seen from the above that there had been delay in filing of ARR by the MeECL during 2007-11 except in 2009-10. Delay in filing the ARR was due to delay in approving the ARR by the MSERC. Detailed analysis revealed that the extent of tariff was lower than breakeven levels (in percentage terms) of revenue from sale of power at the present level of operations and efficiency for the last five years ending 31 March 2011 as shown in the table below:

[76] After formation of MSERC in May 2004, first tariff for 2007-08 was approved by the regulatory body.
[77] During 2009-10, the tariff order was issued twice; firstly w.e.f. 01 December 2009 and secondly w.e.f. Februray 2010.

Table 4.2.28

(₹ in crore)

Year	Sales (excluding subsidy)	Variable costs	Fixed costs	Contribution	Deficit in recovery of fixed costs	Deficit as percentage of sales
1	2	3	4	(5) = (2) – (3)	(6) = (4) – (5)	(7)={(6)/ (2)} X 100
2006-07	233.17	253.34	154.32	-20.17	-	-
2007-08	318.15	220.43	192.39	97.72	94.67	29.76
2008-09	392.51	217.77	214.40	174.74	39.66	10.10
2009-10	415.74	242.98	254.28	172.76	81.52	19.61
2010-11	380.17	326.43	307.79	53.74	254.05	66.83

Source MeECL

It could be seen from above table that though the percentage of deficit had reduced in 2008-09, it had again increased to 66.83 *per cent* during 2010-11. One of the major aspects which contributed to the deficit was interest and finance charges. The MeECL had also to pay surcharge of ₹ 31.82 crore due to its failure to make timely payments for purchase of power (discussed in **para 4.2.12.2**). The necessary controls on these aspects would lead to substantial reduction of deficits.

Though it appears that the tariff was on lower side and needed to be revised for recovery of the costs, it may be highlighted here that the cost could be brought down by improving operational efficiency, *viz*., reduction/control of AT&C losses, conversion of LT lines to HT lines, metering of un-metered connections/ defective meters, improving billing and collection efficiency, *etc*., which had been discussed separately in the performance audit. Further, reduction of cross subsidisation among various categories of consumers might also help in improving the position as discussed in **para 4.2.17.3.**

4.2.18.1 Disallowance/ penalty in tariff orders

Review of tariff orders issued by MSERC during the period 2007-08 to 2010-11 revealed the instances of expenses being disallowed and imposition of penalty in the final truing orders (February 2011) as discussed below:

- ₹ 0.58 crore during 2007-08 and ₹ 13.94 crore during 2008-09 were disallowed by the MSERC on account of Prior period charges in respect of employees cost which in the opinion of MSERC was controllable in nature. The MeECL would therefore need to take measures for reducing the excessive employee costs so as to avoid such disallowances by MSERC;
- MSERC fixed the penalty to be imposed on the MeECL for its inefficiency and failure to reduce AT&C losses by the mandated level during the years 2007-08 and 2008-09 to the extent of ₹ 5.81 crore and ₹ 19.49 crore respectively; and,
- an amount of ₹ 16.67 crore and ₹ 18.23 crore being interest payable on State Government loans for the years 2007-08 and 2008-09 respectively and an amount of ₹ 1.96 crore (₹ 0.98 crore for each of the years 2007-08 and 2008-09) payable as interest on loans against Central Sponsored Scheme (CSS), were disallowed as the MeECL did not actually pay any amount on this account despite claiming the

said amount in the ARR during 2007-08 and 2008-09. Hence, MSERC did not allow the same to be passed on to the consumers through ARR.

The MeECL replied (October 2011) that it had appealed (April 2011) against the disallowance of prior period charges in respect of employees cost and Income Tax during the years 2007-08 and 2008-09 and the appeal was pending for disposal. The Government also endorsed (November 2011) the views of the MeECL.

4.2.19 Consumer Satisfaction

One of the key elements of the power sector reforms was to protect the interest of the consumers and to ensure better quality of service to them. The consumers often face problems relating to supply of power such as non-availability of the distribution system for the release of new connections or extension of connected load, frequent tripping on lines and/or transformers and improper metering and billing.

The MeECL was required to introduce consumer friendly actions like introduction of computerised billing, online bill payment, establishment of customer care centers, *etc.* to enhance satisfaction of consumers and reduce the advent of grievances among them. The billing issues have already been discussed in preceding paragraphs. The redressal of grievances is discussed below.

4.2.19.1 Redressal of Grievances

The MSERC specified the mode and time frame for redressal of grievance in MSERC (Redressal of Grievances) Regulations 2007 in pursuance of the Electricity Act 2003. The MSERC had also issued the Standards of Performance for the MeECL which prescribed the time limit for rendering services to the consumers and compensation payable for not adhering to the same. The nature of services contained in the Standards *inter alia* include line breakdowns, distribution transformer failures, period of load shedding/scheduled outages, voltage variations, meter complaints, installation of new meters/connections or shifting thereof, *etc.*

In line with the above, the MeECL constituted a Forum (June 2008) for redressal of grievances of consumers-

- which shall examine and consider all complaints that it receives and pass orders for the MeECL to remedy the fault or defect within such time as it may decide;
- which shall have powers to call for information from the MeECL or any other person concerned and to hear him; and
- The complaint shall be disposed of within a maximum period of 15 days and the MeECL shall be informed of the decision taken.

The Forum had eight sittings up to the last quarter ended 31 March 2010 and both the two cases received were disposed of. Though one grievance was received in the first quarter ended 30 June 2010, the forum did not meet thereafter. Meanwhile, the tenure of the Forum which was three years had expired in June 2011 and the MeECL was yet to reconstitute the Forum.

Further the MeECL was receiving complaints from the consumers directly. It was seen that during January 2010 to December 2010, total 33471 complaints were received and settled mainly on account of the following:

Table 4.2.29

	Nature of complaints	Town area	Rural Area	Total
1.	Fuse breakdowns	13073	14467	27540
2.	Supply line breakdowns	1456	2963	4419
3.	Transformer failures	52	277	329
4.	Metering defects	38	70	108
5.	Billing defects	279	796	1075
	Total	**14898**	**18573**	**33471**

Source: MSERC

Though the information on the complaints received from the consumers were sought for from the MeECL as a whole, the information were received only from three divisions *viz.*, Western Revenue Division, Umiam, Jowai Revenue Division and Shillong Revenue Division. As per the information furnished by the Shillong Revenue Division, the number of complaints received was nil during 2006-11. However, in respect of Jowai Revenue Division and Western revenue Division, the following position emerged:

Table 4.2.30

(in number)

Sl. No.	Particulars	2006-07	2007-08	2008-09	2009-10	2010-11
1.	Total complaints received[78]	1596	8632	7873	5606	4926
2.	Complaints redressed within time	1516	8567	7831	5568	4896
3.	Complaints redressed beyond time	80	65	42	38	30
4.	Pending complaints	0	0	0	0	0
5.	Percentage of complaints redressed beyond time to total complaints	5.00	0.75	0.53	0.68	0.61
6.	Compensation paid to Consumers	0	0	0	0	0

We observed from the above that all complaints received were disposed of during the respective years and percentage of complaints redressed within time had also improved over the years. However, compared to 2006-07, the number of complaints had increased sharply by 441 *per cent* in 2007-08 and reduced gradually thereafter.

Further, we also noted that in a public hearing held (April 2010) on Electricity tariff petition of the MeECL for the year 2010-11, grievances like bills not served regularly and billings in excess of the actual consumption were raised and it was also pointed out that on number of occasions representations were made to the MeECL but nothing was done for disposal of the grievances.

[78] As per the information furnished by the Western Revenue Division, the number of complaints received was nil. Hence the data was compiled only for Jowai Revenue Division and Shillong Revenue Division.

4.2.19.2 Delay in execution of deposit works/service connections

The MeECL extends the service connection to the prospective consumers directly or through deposit works wherever required and the consumer bears the cost of additional infrastructure. As per Regulation 6 of MSERC (Standards of Performance) Regulation 2006, new service connection (without deposit work) is to be provided to the consumers within a period seven (town areas)/14 (rural areas) days and for new service connection (with deposit work) within a period of 30 (town areas)/60 days (rural areas). A review of records of completion of deposit works and providing service connection revealed that

- delay in issuing materials leads to delay in completion of deposit work and in extending the service connection to the consumers. It was noticed that out of 56 requisitions received from various divisions for deposit works by Central Stores, Shillong during the period June 2009 to March 2010, in 39 cases, there had been delays in issuing materials ranging from one to fifteen months.

- the position[79] of 134 deposit works (31 May 2011) relating to West Garo Hills Distribution Division (89), East Garo Hills Distribution Division (42) and East Khasi Hills Distribution Division (3) were reviewed in audit and the following was noticed:

  - 31 deposit works[80] (₹ 0.95 crore) under West and East Garo Hills Distribution Division were completed after delay ranging from 3 to 21 months;

  - 19 deposit works (₹ 1.57 crore) under West Garo Hills Distribution Division where payment[81] were not received, works were yet to be started; and

  - of the balance 84 deposit works (₹ 6.35 crore) where payment against the bills were already received during May 2008 to March 2011, 75 deposit works[82] were yet to be taken up even after delay of 1 to 34 months and 9 deposit works[83] were under execution even after delay of period ranging from 7 to 14 months.

- In case of 66 consumers under Phulbari Sub-Division (East Garo Hills Distribution Division) who had applied for service connections during May 2008 to March 2010, there were delays ranging from 15 days to 185 days in extending service connection to these consumers.

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[79] As per the monthly status report prepared by distribution divisions

[80] Under West Garo Hills Distribution Division (30) and under East Garo Hills Distribution Division (1)

[81] In case of 30 deposit work (₹ 1.52 crore) bills were served and in one case (₹ 0.05 crore) bills was yet to be served.

[82] 36 deposit works under West Garo Hills Distribution Division with a delay ranging from 1 to 15 months and 36 deposit works under East Garo Hills Distribution Division with a delay ranging from 1 to 34 months and 3 deposit works under East Khasi Hills Distribution Division with a delay ranging from 12 to 24 month.

[83] 4 numbers of Deposit works under West Garo Hills Distribution Division with a delay ranging from 7 to 14 months and five numbers of Deposit works under East Garo Hills Distribution Division.

The MeECL attributed (October 2011) the delay in completion of deposit work to right of way problem, demand of compensation by land owners/public, belated receipt of documents from the applicants, non response of applicants for joint survey, delay in approval for charging lines/substation by the Government department and geographical/climatic constraints in transportation of materials to site. The Government also endorsed (November 2011) the views of the MeECL.

In view of large number of deposit work being inordinately delayed causing much discomfiture to the consumers, the MeECL urgently need to take system improvement measures in association with the concerned department of the State Government, MSERC and consumers.

4.2.20 Energy Conservation

Recognising the fact that efficient use of energy and its conservation is the least-cost option to mitigate the gap between demand and supply, the GOI enacted the Energy Conservation Act, 2001. The conservation of energy being a multi-faceted activity, the Act provides both promotional and regulatory roles on the part of various organisations. The promotional role includes awareness campaigns, education and training, demonstration projects, R&D and feasibility studies. The regulatory role includes framing rules for mandatory audits for large energy consumers, devising norms of energy consumption for various sectors, implementation of standards and provision of fiscal and financial incentives.

It was noticed that the MeECL had taken the following measures in its promotional role to conserve energy:

- through public awareness campaigns via talks on electronic media, radio, design and distribution of book marks with energy conservation tips,
- annual observance of Energy Conservation Day on 14 December through design and display of advertisements in local newspaper, printing of banners and display at prominent areas of capital and district headquarters,
- design of conservation video clips in local languages and display on cable TV,
- participation in Government fair,
- displaying energy conservation themes and coordination activities in schools organised by TERI[84] on behalf of BEE[85].

As a part of conservation measures in the MeECL, a guideline was issued in 2007 to all sub-divisions/estate officers to exercise energy conservation measures such as phase-wise replacement of inefficient lighting systems with energy efficient, ones such as CFLs and energy saving sodium/mercury vapor street lighting systems.

Though the directive was issued, no furtherance of the same was noticed in the records made available to audit. The MeECL was yet to consider and implement the following vigorously in the areas of energy conservation:

[84] The Energy and Resource Institute (TERI) establishment by Tata Energy Resource Institute.
[85] Bureau of Energy Efficiency.

- financial incentives for energy conservation measures;
- incentives for encouraging reduction of T&D losses; and
- awareness campaigns for energy conservation on Demand Side.

4.2.21 Energy Audit

A concept of comprehensive energy audit was put in place with the objective to identifying the areas of energy losses and take steps to reduce the same through system improvements besides accurately accounting for the units purchased/sold and losses at each level. The main objectives of energy audit are better and more accurate monitoring of the consumption of electricity by consumers, elimination of wastages, reduction of downtime of equipment and massive savings in operational costs and increase in revenue, *etc*.

During the year 2006-07, the MeECL had proposed energy audit for which NIT[86] (November 2006) was called for and expenditure to the tune of ₹ 5.34 lakh was incurred on account of consultancy charges. However, the work was not awarded even after floating tender on the ground of non-availability of funds. Thereafter, the MeECL was yet to take up the energy audit.

The MeECL replied (October 2011) that it would take up the energy audit after the commissioning of R-APDRP (project–A). The Government also endorsed (November 2011) the views of the MeECL.

4.2.22 Monitoring by top Management

The MeECL plays an important role in the State economy. For such a large organisation to succeed in operating economically, efficiently and effectively, there has to be a Management Information System (MIS) for monitoring by top management.

Mention was made in para 4.2 of the Audit Report of the CAG - Government of Meghalaya for the year 2009-10 that it had no MIS in place, although it had appointed a consultancy firm for preparing the DPR to implement Enterprise Resource Planning (ERP) solutions. In June 2011, the State Government admitted that MIS for monitoring of operations and projects did not exist and MIS in MeECL covered areas in respect of payroll accounting revenue and commercial, personnel data, and energy injection. Audit observed that there was however, no system for reporting this information to Board of Directors.

The Department also stated that with a view to implement ERP solutions, the MeECL had engaged M/s Price Waterhouse Coopers for preparing the DPR for IT roadmap.

In course of this performance audit, it was observed that the information required was to be called for and collected from various divisions/offices of the MeECL. The time taken to furnish the information indicated that the same were not readily available with the concerned divisions/offices and additional efforts had to be put in by all

[86] Notice inviting tender.

concerned in this regard. Further, in the absence of any centralised information system, the accuracy of the information could not be ensured as the same data furnished by different divisions/offices were not the same. There were instances when complete information could not be furnished by the MeECL. Proper monitoring and control by the top management was also lacking in so far as targets for important areas of its operations like capacity addition plan to upgrade its distribution network in the State, targets for vigilance activity *etc*., were not fixed to evaluate the performance for timely action and improvement.

The MeECL replied (October 2011) that in view of resource constraints, it was exploring alternative arrangement for funding of the implementation of ERP solution. The Government also endorsed (November 2011) the views of the MeECL.

The fact therefore remains that the MeECL, the biggest[87] public sector undertaking in the State continues to lack a proper MIS.

4.2.23 Conclusion

- **The distribution reforms as envisaged under National Electricity Policy / Plans were not fully achieved by MeECL. The increase in the distribution capacity was not commensurate with the pace of growth in demand leading to network overloading with resultant frequent tripping of system and adverse voltage regulation;**
- **Implementation of centrally sponsored schemes (R-APDRP, RGGVY) by MeECL was not efficient and effective. In RGGVY, several deficiencies like, under utilisation of scheme funds, delayed completion of works, provision of excess capacity of transformers, high variation in the rates of material, *etc*. were noticed which had adverse effects on implementation of scheme. The R-APDRP meant to strengthen the distribution system and reduce AT&C losses was yet to be taken up for implementation even after lapse of more than three years of its launching in July 2008;**
- **AT&C losses of MeECL continued to be high, it had increased sharply during 2009-11 and reached at 40.48 *per cent* (2010-11) as against the R-APDRP target of 15 *per cent* and also the target of 22.05 *per cent* set by MeECL for 2010-11. The main reasons for high AT&C losses were poor billing and collection efficiency, over loading of transmission/distribution network, large number of un-metered connections and stopped/defective meters and theft / pilferage of energy, *etc.;***
- **MeECL failed to complete the power projects in time thereby increasing the dependency on outside purchase of power for meeting the demand and consequential increase in the cost of power purchased. At present level of operations, the cost of operation continued to be very high leading to**

[87] In terms of capital employed, turnover, employees etc.

continuous deficit in recovery of fixed costs and consequential dependence on borrowings;

- **deficiencies in the billing system, such as non billing of consumers on regular basis, incorrect billing, non-disconnection of power of consumers running with low power factor, *etc.*, were noticed. The collection activities of MeECL also had several shortcomings like, mounting arrears against electricity dues, huge recoveries pending against permanent disconnected consumers, non-disconnection of supply of defaulting consumers and consumer with heavy arrears, *etc.*;**
- **The MeECL had not taken effective measures for energy audit and energy accounting to identify areas of energy losses and take steps to reduce the same through system improvements;**
- **The MeECL did not have a proper MIS in place for effective control over its operations by top management.**

4.2.24 Recommendations

- **MeECL should focus on strengthening and augmentation of the transmission and distribution network commensurate with the connected load of the consumers;**
- **MeECL should ensure implementing the GOI schemes meant for rural electrification and system augmentation within the time schedule fixed, so as to achieve the envisaged objectives of the schemes;**
- **MeECL should strive to achieve the norms of AT&C losses by strengthening the efficiency of distribution system through evolving effective system of billing and revenue collection, adequate maintenance system, proper management of DTRs, metering of all consumers, expeditious replacement of defective / stopped meters, *etc.***
- **MeECL need to expedite completing the long pending power projects for reducing dependence on outside purchases of power. Corrective measures such as, prompt disconnection of defaulting consumers, timely recovery of dues *etc.*, also need to be taken;**
- **The guidelines of MSERC regarding redressal of consumer grievances should be adhered to by the MeECL.**
- **MeECL should conduct energy audits so as to monitor and control the energy loss;**
- **MeECL should devise and put an appropriate MIS in place so as to have effective control over operations by the top management.**

AUDIT OF TRANSACTIONS

POWER DEPARTMENT

MEGHALAYA ENERGY CORPORATION LIMITED

4.3 Avoidable expenditure and loss of property

The erstwhile Meghalaya State Electricity Board failed to safeguard its assets and to ensure encroachment free clear site before award of Hydro project work, which delayed completion of the project besides avoidable payment of idle charges of ₹ 2 crore.

The erstwhile Meghalaya State Electricity Board (MeSEB)[1] prepared (June 2005) a detailed project report (DPR) for construction of the 2 x 20MW New Umtru Hydro Electric Project (NUHEP) at a cost of ₹ 226.40 crore scheduled to be completed by July 2010. The DPR envisaged that fresh acquisition of land was not required as already land acquired for the existing Umtru Project would meet the needs of the NUHEP. The DPR however, mentioned that drilling work at the surge shaft site could not be carried out because of objections by an unauthorised occupant (encroacher) of the land at this location. We noticed that consequent on the MeSEB issuing (April 2000) an eviction notice to the encroacher, the latter had obtained (May 2000) an injunction from the court followed by an order (March 2007) to maintain the *status quo*.

However, ignoring the fact of non-availability of clear site for the project, MeSEB awarded (December 2007) the civil works for the NUHEP to M/s ITD Cementation Limited (contractor) at a cost of ₹ 80.46 crore and scheduled for completion by June 2010. The contractor commenced work (March 2008) but had to suspend (1 June 2008) the same due to non-availability of encroachment free clear site for construction.

With a view to avoid further delay in providing clear site to contractor and consequential payment of idle charges to the contractor on account of long time required for settling the dispute in court, the erstwhile MeSEB approved (25 June 2008) an out of court settlement with the encroacher. Under the settlement, out of the total area of 36.56 acre illegally occupied, the encroacher handed over (July 2008) 13.46 acre of land required for the project work to the MeSEB. The MeSEB also agreed (July 2008) not to disturb the remaining 23.10 acre on which the encroacher had established a plantation.

Subsequently, in response to MeSEB's request (July 2008) for resuming the work, the contractor refused to do so unless his compensation claims (May 2008/August 2008) of ₹ 20.99 crore towards idling of plant, machineries and labour, *etc.* for the delay period are settled. In December 2008, the contractor submitted another compensation

[1] Meghalaya State Electricity Board (MeSEB) was corporatised as the Meghalaya Energy Corporation Limited (MeECL) in April 2010.

claim of ₹ 4.41 crore as idle charges for the period 01 August 2008 to 30 November 2008. The MeSEB released (December 2008) *ad hoc* payment of ₹ 2 crore to the contractor pending final settlement of his claims following which the contractor restarted the work.

In September 2009, MeSEB set up a committee to examine the contractor's claims. Though the said committee had recommended for payment of ₹ 3.53 crore against the contractor's total compensation claims of ₹ 25.40 crore, a final decision in the matter was pending (May 2011). Meanwhile, civil work of NUHEP to the extent of 72.66 *per cent* were reported to have been completed.

Thus, the MeSEB's failure to ensure the availability of encroachment free site for the project, which is a prerequisite of any construction/infrastructure project had resulted in:

- extension in the scheduled date of completion of the NUHEP project from July 2010 to December 2012, which may cause corresponding escalation in the initial project cost of ₹ 226.40 crore for the time overrun involved;
- payment of ₹ 2 crore as compensation to the contractor with the prospects of paying at least another ₹ 1.53 crore; and,
- surrender of 23.10 acre of the MeSEB's land valued[2] at ₹ 28.05 lakh in favour of the encroacher by way of *de facto* regularization of said land. Besides, the encroachment on MeSEB's land, which lingered on from April 2000 to June 2008 had an adverse reflection on the MeSEB's ability on safeguarding and monitoring of its assets.

In paragraphs 4.3 and 4.4 of the Audit Report 2008-09, Government of Meghalaya, similar cases of MeSEB's failure to secure project sites before issuing work orders/supply orders for equipment were pointed out which resulted in extra expenditure of ₹ 37.48 lakh and an idle expenditure of ₹ 5.26 crore**.** The persistence of similar lapse was therefore, disturbing and adversely reflects on MeSEB's ability to safeguard and monitor its assets.

The Government, while accepting the facts, stated (November 2011) that the decision to award the work order was taken with a view to complete the project early as the State was facing acute shortage of power and also in anticipation that the Hon'ble court would withdraw the Injunction order. It was also stated that value of the land area sacrificed was meager compared to the probable generation loss on account of further delay in completing the project. Regarding the previous audit observations referred to in the para, it was stated that the there is no repeat of lapse as the cause to delay in previous cases were quite dissimilar one from the other.

The reply is not acceptable as the availability of encroachment free clear site is a pre-requisite for timely completion of any project. By not ensuring this, the project was not only delayed but the MeSEB had to bear avoidable loss towards payment of idle

[2] by the Deputy Commissioner, Ri-Bhoi District, Nongpoh in June 2010.

charges to the contractor. As regards the cases referred to from our previous Report, it is pertinent to mention that there is no dissimilarity in cases referred to by us as on both occasions, MeSEB ignored the ongoing disputes over project sites before taking up the project works causing huge losses besides delaying the projects.

The Management should, therefore, take appropriate measures to safeguard its assets by strengthening the monitoring and internal control system and ensure that before implementation of any project, availability of the required land is ensured.

COMMERCE AND INDUSTRIES DEPARTMENT

MEGHALAYA INDUSTRIAL DEVELOPMENT CORPORATION LIMITED

4.4 Undue delay in recovery action

The Company unduly delayed recovery action against outstanding loan, which resulted in loss of ₹ 62.43 lakh.

The Meghalaya Industrial Development Corporation Limited (Company) sanctioned (April 2000) ₹ 80 lakh[3] loan to M/s N.R. Roller Flour Mills Company Pvt. Ltd. (borrower) for establishing a flour mill at Khanapara in Ri-Bhoi District. The Company refinanced the entire loan from the Small Industries Development Bank of India (SIDBI) and released the money to the borrower between May 2000 and January 2001.[4]

Scrutiny of records of the Company revealed that although the loan was repayable in 18 half-yearly installments commencing from May 2002, the borrower defaulted in repayment from the beginning when the cheque of ₹ 5 lakh issued (March 2003) by the borrower bounced. The only repayment received against the loan was ₹ 0.50 lakh in cash in October 2003/February 2004 towards payment of interest. The Company, however, out of the total Government subsidy of ₹ 72.93 lakh released to the borrower up to March 2004 to be routed through the Company recovered another ₹ 62.93 lakh (₹ 23.97 lakh towards principal and ₹ 38.96 lakh towards interest) and passed (March 2004) on the balance subsidy amount of ₹ 10 lakh to the borrower.

In March 2006, the borrower, with balance outstanding of ₹ 73.62 lakh[5], proposed for settlement of loan under One Time Settlement (OTS). The Company accepted (March 2006) the proposal for ₹ 57.45 lakh on condition that the amount should be repaid in three monthly equal installments. The borrower, however, failed to pay off the dues, agreed under OTS. In August 2007, the borrower again approached the Company for settlement of the loan at the amount agreed to (March 2006) under the OTS and

[3] with interest at the rate 15.50 *per cent per annum*.
[4] May 2000-₹ 15 lakh; June 2000- ₹ 34.02 lakh; September 2000 –₹ 5 lakh; October 2000 – ₹ 10 lakh ; January 2001 – ₹ 15.98 lakh.
[5] Principal: ₹ 56.03 lakh; interest: ₹ 17.59 lakh.

issued four post dated cheques for ₹ 57.45 lakh[6]. The Company refused the offer but nevertheless retained the cheques which, however, all bounced when presented to the bank for payment.

The Company issued (December 2007/January 2008) notices to the borrower demanding payments for the amounts of the cheques within seven days, without any fruitful results. On realising that the promoters and directors of the borrowing firm were absconding, Company lodged (March 2008) FIR with the police for recovery of the dues, which served no purpose. The Company filed (November 2009) a suit before the Debt Recovery Tribunal (DRT), Guwahati for a certificate of recovery against the borrower an order for attachment and sale of the mortgaged properties, which was still pending (July 2011).

In this connection, we observed the following:

- the loan given to the borrower was refinanced by the Company from SIDBI. While the Company repaid SIDBI ₹ 125.86 lakh (₹ 80 lakh principal and ₹ 45.86 lakh interest), it could recover only ₹ 63.43 lakh[7] thereby incurring a loss of ₹ 62.43 lakh;
- after dishonour (March 2003) of the first cheque given by the borrower, the Company should have straightway initiated action under the provisions of the Negotiable Instruments Act, 1881[8] - By not initiating the desirable action, Company encouraged the borrower in deluding the Company by giving it another four cheques in August 2007 which proved to be useless;
- against the amount allowable under OTS[9] of ₹ 64.83 lakh (principal ₹ 56.03 lakh and interest ₹ 8.80 lakh), the Company imprudently offered (March 2006) to accept ₹ 57.45 lakh thereby waiving excess interest of ₹ 7.37 lakh and also extended OTS without fixing validity period of OTS offer.
- the borrower's abysmal repayment record should have been a sufficient pointer for the Company to initiate legal action much before November 2009, when it finally did;
- though as per legal advice obtained (November 2008) in the matter, the Company was suggested to take action under section 29 of the State Financial Corporation

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[6] Cheques dated 25 September 2007 for ₹ 17.45 lakh; 25 October 2007 for ₹ 10 lakh; 25 November 2007 for ₹ 15 lakh; 24 December 2007 for ₹ 15 lakh.

[7] ₹ 0.50 lakh paid by the debtor towards interest + ₹ 62.93 lakh recovered by the MIDC from the subsidy.

[8] Dishonour of a cheque for insufficiency of funds, *etc.* is an offence under Section 138 of the Negotiable Instruments Act, 1881 and punishable with imprisonment or with fine up to twice the amount of the cheque, or with both, provided that the holder of the cheque makes a demand for the payment of the said amount of money by giving a notice to the drawer of the cheque within 30 days of the receipt of information regarding return of the cheque from the bank. If the drawer of such cheque fails to make payment within 15 days of the receipt of the said notice under Section 142 of the Act, a complaint under Section 138 is required to be made within one month from the date of expiry of notice issued to the drawer of the cheque, i.e. 15 days from of the receipt of notice by the drawer.

[9] As per the OTS scheme, borrower was required to pay full principal amount plus 50 *per cent* of interest accumulated payable as 25 *per cent* down payment and the balance amount within 12 months. In case the borrower fails to clear the balance amount within 12 months then the offer will be revoked and full interest will become payable.

(SFC) Act, 1951[10] for speedy recovery of dues – it ignored the same and instead, decided to file a suit before the Debt Recovery Tribunal, Guwahati, after one year in November 2009; and,

- in October 2010, theft of machinery and other items occurred in the flour mill's premises– such incidents may recur in future also and by the time the case is finally decided, the Company may be left with very little assets to cover its dues.

The Government/Management replied (July 2011) that before taking the action under Negotiable Instruments Act, efforts were made to resolve the issue with the borrower. On realizing that main promoters/directors of the borrower company were absconding, FIR was filed and a suit in the DRT was also filed for recovery of loan outstanding. As regards not taking action under section 29 of the SFC Act, it was stated that recovering the dues by selling the assets of defaulter was difficult in absence of buyers and may result in further expenditure on upkeep of said assets.

The reply is not acceptable as the Company had weakened the opportunity of recovering the dues by delaying the legal action against the defaulters. Regarding Company's plea of difficulties in selling the assets of defaulters, it is pertinent to mention that as per its own experience, in case of two units, which were seized under section 29 of the SFC Act in last decade, both the defaulters, at their own had come forward for negotiation with the Company.

Thus, the Company incurred a loss of ₹ 62.43 lakh due to unduly delayed action against defaulting borrower for recovery of the dues. The Company needs to identify the chronic loan default cases and initiate appropriate legal course of action for prompt recovery of unpaid dues.

4.5 Ineffective management of industrial parks

Ineffective management of industrial parks resulted in rental arrears accumulating to ₹ 3.01 crore and land not being optimally used for intended purposes.

To provide infrastructural facilities to prospective industrial units in Meghalaya, the State Government (SG) set up two industrial parks (IP) *viz.,* Umiam Industrial Area (UIA), Barapani in March 1976 and Export Promotion Industrial Park (EPIP), Byrnihat in March 2001 covering an area of 209 acre and 259.35 acre respectively. Plots in the IPs were allotted and leased out to entrepreneurs by the SG for periods from 25 to 30 years against annual lease rent payable in advance at the rate of ₹ 5 or ₹ 20 per square metre[11] (sqm.).

[10] The Act empowers the Company to take over management or possession or both so as to sell the flour mill (Section 29), apply to the District Judge for sale of the mortgaged property and enforcing the liability of the surety (Section 31) and to make an application to the State Government for recovery of dues as arrears of land revenue under the Revenue Recovery Act (Section 32).

[11] for developed land and undeveloped land at ₹ 20 per sqm and ₹ 5 per sqm respectively.

The Meghalaya Industrial Development Corporation Limited (Company) was entrusted with maintaining and developing these IPs and authorised to collect the lease rent from industrial units in the IPs.

As per the allotment conditions, the allottees (industrial units) of land were required to take in the IPs steps for arranging the finances and procure machineries within the stipulated period failing which the allotment would lapse automatically. The lease deed to be executed between the industrial unit and the SG shall *inter alia*, include the following conditions in this regard:

➢ lease rent was to be paid yearly in advance and in the event of arrears, interest at the rate of 12 *per cent* per annum would be charged and the arrears recovered as arrears of land revenue; and,

➢ if the industrial unit failed to comply with the terms and conditions, the lease would be automatically terminated.

Our scrutiny (July/August 2011) of records relating to the two IPs[12] with reference to the above requirements revealed the following:

➢ As against total 123 units who were allotted plots in the two IPs as on 30 June 2011 lease deeds were executed by only 91 units[13]. The remaining 32 units[14] had not executed the lease deeds as required.

➢ Out of the 91 units who had executed leases, 45 units[15] had not paid their lease rents dues of ₹ 2.54 crore[16] as on 30 June 2011 for periods ranging from one to 12 years. Further, 15[17] of the said 45 defaulter units were either non-functional or had not gone through with their projects.

➢ Of the 32 units who did not execute lease deeds, Company raised rental bills against five units only[18] of which the rent outstanding in respect of three[19] units was ₹ 0.09 crore up to June 2011. Calculated at the minimum rental of ₹ 5 per sqm., rent for periods ranging from more than 2 to 18 years amounting to ₹ 37.62 lakh[20] was realisable from these 27 units up to June 2011 for which bills were not raised. Further, 20[21] of these 27 units were either non-functional or had not gone through with their projects.

[12] 47 acre of land which added to EPIP, Byrnihat in May 2011 was excluded from the purview of the audit examination.
[13] (UIA -46; EPIP – 45)
[14] (UIA -29; EPIP – 3)
[15] (UIA - 27; EPIP – 18)
[16] (UIA – ₹ 0.70 crore; EPIP – ₹ 1.84 crore)
[17] (UIA – 7 ; EPIP – 8)
[18] (UIA -4; EPIP – 1) based on the advice of the department.
[19] (UIA-2 and EPIP-1)
[20] rent of ₹37.62 lakh calculated @ ₹ 5 per sqm per annum including interest @12 *per cent* for 27 units 79310.90 sqm (UIA-25 with 71264.90 sqm and EPIP-2 with 8046 sqm.) for the period from the date of allotment up to June 2011.
[21] (UIA – 18; EPIP – 2)

➢ The 46 units[22] out of total 123 units were either non-functional[23] or had not gone through with their projects[24]. Of these 46 units, 39 units[25] were occupying land in the IPs for more than 2 to 24 years[26]. Though occupation of the land by these units was a violation of the terms of allotment, the Company did not take steps to repossess their plots despite the fact that there were 19 units[27]/allottees in IPs (since May 2000 to June 2010) who were awaiting possession of plots due to scarcity of land. We further noticed that three of the non-functional units were allotted second plots[28] by the SG in the IPs between August 2007 and July 2010.

We further observed that Company failed to effectively guard the land in IPs against unauthorised encroachments. In the UIA there were 65 families who had illegally occupied a portion of the IP. Although the Company had first reported the matter to the Deputy Commissioner (DC) of Ri Bhoi district in November 2009, it was only in March 2011 that the DC issued eviction notices to the families. As of October 2011, the encroachers were yet to vacate.

Thus, the ineffectual management of the Company in IPs resulted in unauthorised encroachments and accumulation of rental arrears to ₹ 3.01 crore[29]. Further, Company's reluctance to take action against non-functional allottees of IPs resulted in these units occupying land which could otherwise have been allotted to other units awaiting allotments. The Company's failure on these counts frustrated the SG's objective of promoting industrialisation in the State.

The Government stated (November 2011) that appropriate action would be taken for execution of lease deeds and raising of annual lease bills in respect of all the units. It was further stated that against the unpaid rental dues of ₹ 2.54 crore of 44 units, an amount of ₹ 0.27 crore has already been recovered and appropriate action is being taken against the defaulters and also against the non-functional allottee units, wherever necessary.

The reply is not tenable as with desired level of coordination between the Company and the Directorate of Industries and Commerce, the lease deeds could have been executed in time with all the allottees and the accumulation of rental arrears could have been avoided.

[22] (UIA-30;EPIP-16) including 8 units (UIA-3;EPIP-5) where rent had been paid and 3 units (UIA-2;EPIP-1) where lease deed not signed but bill raised by MIDC.
[23] (UIA -2; EPIP – 8).
[24] (UIA - 28; EPIP – 8).
[25] (UIA - 24; EPIP – 15).
[26] Plots in the IPs were allotted to these 39 units between September 1987 to June 2008.
[27] (UIA - 15; EPIP – 5).
[28] (UIA -1; EPIP –2).
[29] ₹ 2.54 crore + ₹ 0.09 crore + ₹ 0.38 crore = ₹ 3.01 crore.

MEGHALAYA ELECTRONICS DEVELOPMENT CORPORATION LIMITED

4.6 Delay in settlement of voluntary retirement claims

The indecisive and dithering approach of the State Government in providing the necessary funds to the Company resulted in loss of ₹ 3.74 crore to State exchequer on account of increased VRS liability

The Meghalaya Electronics Development Corporation Limited (Company) was incorporated in March 1986 as a wholly owned subsidiary of the Meghalaya Industrial Development Corporation (MIDC), and was incurring losses persistently since 1989-90. To rehabilitate the Company, the management implemented (June 2003) a Voluntary Retirement Scheme (VRS). Out of 59 employees, 42 proceeded (December 2005) on VRS and were also paid (December 2005) retirement dues aggregating ₹ 2.32 crore. In December 2005, the Company also closed all production activity.

Scrutiny of records of the Company revealed that the remaining 17 employees opted for VRS in December 2006 and the retirement dues payable to them as of December 2006 stood at ₹ 1.63 crore[30]. In February 2007, the Company informed the State Government (SG) that ₹ 1.24[31] crore was required to implement the VRS for these employees. The SG did not respond to this request. Subsequently on the directions (July 2008) of the holding Company, the Company informed (July 2008) the SG of its revised requirement of ₹ 2.17 crore to implement the VRS. In the absence of any response to this intimation also, the Company was left with no other option but to periodically update the SG for funds requirements of ₹ 2.46 crore (March 2009) and ₹ 2.71 crore (October 2009) for implementing the VRS.

In October 2009, though the SG conveyed its approval to the Company's proposal (March 2009) for ₹ 2.46 crore to grant VRS to the 17 employees but released (October 2009) only ₹ 1.12 crore which was utilised for the given purpose.

Consequent on the implementation of the recommendations of the State's Fourth Pay Commission in January 2007, the SG directed (July 2010) the Company to submit its revised fund requirement for final settlement of VRS. Accordingly, the Company submitted (August 2010) proposal for ₹ 4.41 crore which was revised (March 2011) to ₹ 5.05 crore and ₹ 5.37 crore (July 2011). We observed that SG did not release any additional funds except ₹ 1.34 crore (March 2011) being the balance amount against ₹ 2.46 crore sanctioned in October 2009 which was also disbursed to the said 17 employees in April 2011. Consequently as of April 2011, 16 employees[32] were still employed with the Company despite all of them having opted for VRS in December 2006. Meanwhile, the Company also had to pay ₹ 74.62 lakh towards salaries and allowances of said employees for the period February 2007 to March 2010.

[30] For 17 employees after taking into accounts of the impact of 3rd Meghalaya Pay Commission.

[31] In September 2006, the management was considering implementation of new projects. As such, fund requirement for 13 employees who were not to be absorbed for these projects were considered.

[32] one out of the 17 employees had meanwhile retired on superannuation on 01 September 2009.

Thus, due to indecisive and dithering approach of the SG in providing the necessary funds to the Company, the implementation of VRS was abnormally delayed causing avoidable loss of ₹ 3.74 crore[33] to state exchequer on account of increased VRS claim besides incurring avoidable expenditure of ₹ 74.62 lakh on salaries and allowances of the employees.

The Government accepted (July 2011) that the cost of implementing the VRS had gone up due to non-availability of funds for disbursement of the VRS amount to the said employees.

Given this situation, the expenditure on VRS is bound to go up further unless steps are taken by the SG, to bring about a final settlement to this matter at the earliest.

MAWMLUH CHERRA CEMENTS LIMITED

4.7 Extra expenditure on electricity charges

Inordinate delay in restricting the contract demand and connected load as per actual requirement resulted in extra expenditure of ₹ 44.08 lakh towards high demand charges.

Under the tariff structure of the Meghalaya State Electricity Board (MeSEB), monthly billing demand for a 'High Tension Industrial Power' (HTIP) consumer is to be assessed and billed on the higher of the following: (i) maximum demand established during the month, or (ii) 80 *per cent* of the highest demand established during the preceding 11 months, or (iii) 75 *per cent* of the contracted demand, or (iv) 50 KW/60 KVA.

The Mawmluh Cherra Cements Limited (Company) had entered (April 1996) into an agreement with the erstwhile Meghalaya State Electricity Board[34] (MeSEB) for HTIP power supply with a contracted demand of 8000 KVA from March 1998. This was reduced to 7000 KVA from June 2001 after being pointed out in paragraph 8.4 of the Report of the CAG for the year 2000-01, Government of Meghalaya, the non-reduction in contract demand to 7000 KVA based on the actual drawal of power by the Company during April 1998 to May 2001.

Under Audit Report (Civil), 2006-07, Government of Meghalaya (paragraph 7.5), the issue of not reducing the contract demand by the Company from 7000 KVA to 6000 KVA based on actual drawal of power was again raised pointing out extra expenditure of ₹ 47.22 lakh on account of higher demand charges. In response, the Company had expressed (February 2008) its inability in reducing the contract demand to 6000 KVA quoting electricity supply conditions of MeSEB, which did not permit reducing the contract demand below 80 *per cent* of the connected load.

[33] Difference between the VRS liability for 17 employees as assessed in December 2006 (₹ 1.63 crore) and as revised (₹ 5.37 crore) as on July 2011.
[34] Corporatised as Meghalaya Energy Corporation Limited in April 2010.

We observed that the plea of the Company was not relevant and out of the context as our contention put forth in the paragraphs under reference of our previous Audit Reports related to reduction in the contract demand with corresponding reduction in the connected load of the Company based on the review of the actual drawal/requirement of power so as to avoid the avoidable expenditure on demand charges on this account.

We noticed that against the contract demand of 7000 KVA during 2006-10, actual drawal of power by the Company during July 2007 to August 2010 ranged between 4887 KVA (May 2009) and 1548 KVA (July 2009/ January 2010) only. The main reason for low drawal of power by the Company was drastic reduction in the capacity utilisation of its manufacturing unit from 35.76 *per cent* (2006-07) to 21.40 *per cent* (2009-10).

We further noticed that the Company finally reduced its contract demand from 7000 KVA to 6000 KVA with effect from October 2010 in lines with the suggestions made by us.

Thus, the delayed action of the Company in reducing the contract demand and the connected load based on the actual requirement of power had resulted in extra expenditure of ₹ 44.08 lakh on demand charges for the period from January 2006 to September 2010.

In reply (October 2011), the Government had noted the observation to avoid losses in future.

Shillong — **(A.W.K. LANGSTIEH)**
The — Principal Accountant General (Audit)
Meghalaya

Countersigned

New Delhi — **(VINOD RAI)**
The — Comptroller and Auditor General of India

APPENDIX 3.1
Expenditure in deviation from the sanctioned estimates
(Paragraph 3.1.12.5; Page 70)

(₹ in lakh)

Sl. No	Name of division	Name of work	Items of work executed in excess of estimated provision or without provision	Excess expendi-ture
1.	NH Bye-Pass	Construction of missing bridge at 3rd km of Mawrynkneng Ksehpondeng Road (Span 12 m)	Masonry works	2.39
		Improvement including MBT of SMM Road (36-39 km)		11.58
		Construction of Iewrynghep-Rngibah Road (Ph-I; 0-5 km)		2.07
		Construction of Pomlakrai Rngi Shillong Road (1.90 km)	Earthwork	8.09
		Construction of Iewrynghep Rngibah Road Phase I (0-5 km)		48.73
		Improvement and strengthening (including providing of.20 mm thick PMC to Road from Lad Nongkrem to Smit 7.30 km	Utilisation of excess road metal	0.98
		Improvement and strengthening including provision for.20 mm thick PMC to Road from Lad Nongkrem to Smit	Site clearing, temporary restoration, dismantling without provision	6.95
		Construction including MBT of Thadan village road	Catch water dam, collection and supply of blindage, excess over provision for hume pipe	5.82
2.	NEC Jowai	Improvement iincluding MBT of Road from Lad-Moolamnoh to Mashut (7.60 km) under NEC	Masonry works	45.48
		Construction of Rymbai-Borsora-Jalalpur road (0-63 km) under NEC	Earthwork	313.54
		Construction of Rymbai-Borsora Jalalpur Road (0-6k km) under NEC	Execution of GSB work in deviation estimate	117.32
			Execution of MBT work beyond the sanctioned estimate	445.91
3.	Jowai Central	Consruction of road from 57th km. of NH-44 to Mookyndor Village Road	Earthwork	10.02
		Improvement of intersection at Amlarem	Utilisation of excess road metal	1.98
4.	Williamnagar	Strengthening of damaged pavement on Darugri Roggengri Road (92-100th km)	Utilisation of excess bitumen	5.55
		MBT of a road from Samanda to Jengjal via Chiading and Dilma Ampanggre (2 km)		3.73
		Construction approached to Simsang bridge at Williamnagar.	Expenditure incurred on other works like AR&FDR booked in the work	23.60
		MBT of a road from Samanda to Jengjal	Earth work, temporary restoration, lowering of side drain without provision	7.40
5.	Sohra	Improvement/widening including MBT of Cherra Mawsmai Shella Road (40 km)	Utilisation of excess bitumen	28.75
6.	Mawsynram	Strengthening including MBT of Mawsynram Hatmawdon-Rinku Road in connection with KJP Synod at Lawbah		1.01
		Strengthening including MBT of Mawsynram Hatmawdon Rinku Road in connection with KJP Synod at Lawbah	Cement concrete work in abutment and Retaining wall without provision	5.23
7.	Jowai South	MBT of Amlarem Muktapur Road.	Utilisation of excess bitumen	3.28
8.	Shillong South	Re-construction of bridges and subway approaches on Mawphlang-Ballat road (NLCPR) Br. No 9/1	Excess quantity for stone masonry, staging and carriage	25.45
		Re-construction of bridges and subway approaches on Mawphlang-Balat Road (NLCPR) Br. No 9/1	Widening of approach road beyond the scope	5.89
9.	Jowai North	MBT of Mynsgad-Umladong road (0-6)	Ordinary repair work without provision	6.90
10.	Resubelpara	Rehabilitation of Damra Mendipathar Road.	Earthwork, B/wall & RCC work	5.16
	Total			**1142.81**

Source: Estimates, payment vouchers and measurement books.

APPENDIX 3.2

Details showing the position of excess Muster Roll workers

(Reference: Paragraph 3.1.15.2; Page 74)

(₹ in lakh)

Year	Length of Road	Requirement of muster roll workers as per month	Muster Roll workers actually engaged per month	Excess	Percentage of excess	Extra expenditure[1]
NH Division, Shillong						
2006-07	294.82	184	262	78	42	19.75
2007-08	294.82	184	262	78	42	19.77
2008-09	294.82	184	263	79	43	20.04
2009-10	299.65	187	263	79	43	21.50
2010-11	299.65	187	259	72	39	26.28
Total						**107.34**
Sohra Division						
2006-07	277.40	173	213	40	23	10.38
2007-08	277.40	173	213	40	23	9.82
2008-09	277.40	173	213	40	23	9.41
2009-10	280.39	175	215	40	23	12.28
2010-11	289.55	181	216	35	19	11.91
Total						**53.80**
NH Bye Pass Division						
2006-07	219.62	137	150	13	09	3.52
2007-08	234.78	147	160	13	09	2.36
2008-09	234.78	147	160	13	09	2.32
2009-10	234.78	147	160	13	09	2.88
2010-11	234.78	147	160	13	09	3.19
Total						**14.27**
NEC Jowai Division						
2006-07	366.39	229	270	41	18	10.47
2007-08	274.28	234	270	36	15	9.20
2008-09	377.29	236	250	14	06	3.58
2009-10	388.89	243	246	3	01	0.77
Total						**24.02**
Grand Total						**199.43**

Source: Information furnished by the EEs of the divisions concerned.

[1] Total expenditure incurred on payment of wages to the muster roll workers during the year ÷ number of muster roll labourers engaged x number of excess muster roll workers engaged.

APPENDIX 4.1

Statement showing particulars of up to date paid-up capital, loans outstanding and Manpower as on 31 March 2011 in respect of Government companies and Statutory corporations

(Reference: Paragraph 4.1.3; Page 82)

(Figures in column 5 (a) to 6 (c) are ₹ in crore)

Sl. No.	Sector & Name of the Company	Name of the Department	Month and year of incorporation	Paid-up Capital[2]				Loans[3] outstanding at the close of 2010-11				Debt equity ratio for 2010-11 (Previous year)	Manpower (No. of employees) (as on 31.3.2011)
				State Government	Central Government	Others	Total	State Government	Central Government	Others	Total		
(1)	(2)	(3)	(4)	5 (a)	5 (b)	5 (c)	5 (d)	5 (e)	6 (a)	6 (b)	6 (c)	(7)	(8)
A. Working Government Companies													
AGRICULTURE & ALLIED													
1.	Forest Development Corporation of Meghalaya Limited (FDCML)	Forest	January 1975	1.77	0.20		1.97		-	-	-	- (0:1)	73
2.	Meghalaya Bamboo Chips Limited (MBCL)	Industries	September 1979	-	-	0.48	0.48	-	-	0.10	0.10	0.21.1 (4.06:1)	15
Sector wise total				**1.77**	**0.20**	**0.48**	**2.45**	**-**	**-**	**0.10**	**0.10**	**0.04:1**	**88**
INFRASTRUCTURE													
3.	Meghalaya Industrial Development Corporation Limited (MIDCL)	Industries	April 1971	89.49	-	-	89.49	-	-	-	-	- (0:1)	117
4.	Meghalaya Government Construction Corporation Limited (MGCCL)	Public works	March 1979	0.75	-	-	0.75	-	-	-	-	- (3.00:1)	108
Sector wise total				**90.24**	**-**	**-**	**90.24**		**-**	**-**	**-**	**-**	**225**
MANUFACTURING													
5.	Mawmluh Cherra Cement Limited (MCCL)	Industries	May 1995	63.11	-	0.10	63.21	-	-	30.94	30.94	0.49:1 (0.54:1)	546
6.	Meghalaya Mineral Development Corporation Limited (MMDCL)	Mining & Geology	March 1981	2.32	-	-	2.32	-	-	-	-	- (0:1)	17
Sector wise total				**65.43**	**-**	**0.10**	**65.53**	**-**	**-**	**30.94**	**30.94**	**0.47:1**	**563**
SERVICES													
7	Meghalaya Tourism Development Corporation Limited (MTDCL)	Tourism	January 1977	7.96	-	-	7.96	-	-	-	-	- (0.32:1)	135
Sector wise total				**7.96**	**-**	**-**	**7.96**	**-**	**-**	**-**	**-**	**-**	**135**

[2] Paid-up capital includes share application money.
[3] Loans outstanding at the close of 2010-11 represent long-term loans only.

Sl. No.	Sector & Name of the Company	Name of the Department	Month and year of Incorpo-ration	Paid-up Capital				Loans outstanding at the close of 2010-11				Debt equity ratio for 2010-11 (Previous year)	Manpower (No. of employees) (as on 31.3.2011)
				State Govern-ment	Central Govern-ment	Others	Total	State Govern-ment	Central Govern-ment	Others	Total		
(1)	(2)	(3)	(4)	5 (a)	5 (b)	5 (c)	5 (d)	5 (e)	6 (a)	6 (b)	6 (c)	(7)	(8)
MISCELLANEOUS													
8	Meghalaya Handloom & Handicrafts Development Corporation Limited (MHHDCL)	Industries	January 1979	3.21	0.10	0.05	3.36	-	-	-	-	- (0:1)	9
Sector wise total				**3.21**	**0.10**	**0.05**	**3.36**	**-**	**-**	**-**	**-**	**-**	**9**
POWER													
9	Meghalaya Energy Corporation Limited (MeECL)	Power & Electricity	14 September 2009	202.00	-	-	202.00	202.78	-	895.56	1098.34	5.44:1 (4.14:1)	3611
Sector wise total				**202.00**	**-**	**-**	**202.00**	**202.78**	**-**	**895.56**	**1098.34**	**5.44:1**	**3611**
Total A (All sector wise working Government companies)				**370.61**	**0.30**	**0.63**	**371.54**	**202.78**	**-**	**926.60**	**1129.38**	**3.04:1**	**4631**
B. Working Statutory corporations													
SERVICE													
1	Meghalaya Transport Corporation (MTC)	Transport	October 1976	67.97	6.81	-	74.78	-	-	-	-	- (0:1)	331
Sector wise total				**67.97**	**6.81**	**-**	**74.78**	**-**	**-**	**-**	**-**	**-**	**331**
MISCELLANEOUS											-		
2	Meghalaya State Warehousing Corporation (MSWC)	Cooperation	March 1973	2.14	-	1.22	3.36	-	-	-	-	- (0:1)	11
Sector wise total				**2.14**	**-**	**1.22**	**3.36**	**-**	**-**	**-**	**-**	**-**	**11**
Total B (All sector wise working Statutory corporations)				**70.11**	**6.81**	**1.22**	**78.14**	**-**	**-**	**-**	**-**	**-**	**342**
Grand Total (A + B)				**440.72**	**7.11**	**1.85**	**449.68**	**202.78**		**926.60**	**1129.38**	**2.51:1**	**4973**
C. Non working Government Companies													
MANUFACTURING													
1	Meghalaya Electronics Development Corporation Limited (MEDCL) (Subsidiary)	Industries	March 1986	-	-	4.72	4.72	-	-	-	-	- (0.31:1)	16
2	Meghalaya Phyto Chemicals Limited	Industries		-	-	0.75	0.75	-	-	-	-	-	-
Sector wise total				**-**	**-**	**5.47**	**5.47**	**-**	**-**	**-**	**-**	**- (0.31:1)**	**16**
Total C (All sector wise non working Government companies)				**-**	**-**	**5.47**	**5.47**	**-**	**-**	**-**	**-**	**-**	**16**
Grand Total(A+B+C)				**440.72**	**7.11**	**7.32**	**455.15**	**202.78**		**926.60**	**1129.38**	**2.49:1**	**4989**

APPENDIX 4.2

Summarised financial results of Government companies and statutory corporations for the latest year for which accounts were finalised

(Reference: Paragraphs 4.1.6, 4.1.7 & 4.1.8; Pages 84, 87 & 88)

(Figures in column 5 (a) to (6) and (8) to (10) are ₹ in crore)

Sl. No.	Sector & Name of the Company	Period of Accounts	Year in which finalised	Net Profit (+)/ Loss (-)				Turnover	Impact of Accounts Comments[4]	Paid up Capital	Accumulated Profit (+)/ Loss (-)	Capital employed[5]	Return on capital employed[6]	Percentage return on capital employed
				Net Profit/ Loss before Interest & Depreciation	Interest	Deprecia-tion	Net Profit/ Loss							
(1)	(2)	(3)	(4)	5 (a)	5 (b)	5 (c)	5 (d)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
A. Working Government Companies														
AGRICULTURE & ALLIED														
1	Forest Development Corporation of Meghalaya Limited (FDCML)	2002-03	2011-12	(-)0.47	-	0.01	(-) 0.48	0.48	Under-statement of loss:₹ 0.002 crore	1.97	(-) 3.52	(-)1.97	(-) 0.48	-
2	Meghalaya Bamboo Chips Limited (MBCL)	2007-08	2011-12	(-)0.49	0.20	0.05	(-) 0.74	0.01	-	0.48	(-) 10	0.29	(-) 0.54	
Sector wise total				**(-)0.96**	**0.20**	**0.06**	**(-) 1.22**	**0.49**	**-**	**2.45**	**(-) 13.52**	**(-)1.68**	**(-) 1.02**	**-**
INFRASTRUCTURE														
3	Meghalaya Industrial Development Corporation Limited (MIDCL)	2004-05	2011-12	(-)23.54	1.49	0.04	(-) 25.07	5.18	Under-statement of loss:₹ 0.40 crore	74.63	(-) 24.69	83.03	(-) 23.58	-
4	Meghalaya Government Construction Corporation Limited (MGCCL)	2009-10	2011-12	1.16	0.24	0.05	0.87	2.63	Overstatement of profit:₹ 0.001 crore	0.75	(-) 12.09	(-)9.67	1.11	-
Sector wise total				**(-)22.38**	**1.73**	**0.09**	**(-) 24.20**	**7.81**	**-**	**75.38**	**(-) 36.78**	**73.36**	**(-) 22.47**	**-**

[4] Impact of accounts comments include the net impact of comments of Statutory Auditors and CAG and is denoted by (+) increase in profit/ decrease in losses (-) decrease in profit/ increase in losses.
[5] Capital employed represents net fixed assets (including capital works-in-progress) plus working capital except in case of finance companies/ corporations where the capital employed is worked out as a mean of aggregate of the opening and closing balances of paid up capital, free reserves, bonds, deposits and borrowings (including refinance).
[6] Return on capital employed has been worked out by adding profit and interest charged to profit and loss account.

Sl. No.	Sector & Name of the Company	Period of Accounts	Year in which finalised	Net Profit (+)/ Loss (-)				Turnover	Impact of Accounts Comments	Paid up Capital	Accumulated Profit (+)/ Loss (-)	Capital employed	Return on capital employed	Percentage return on capital employed
				Net Profit/ Loss before Interest & Depreciation	Interest	Deprecia-tion	Net Profit/ Loss							
(1)	(2)	(3)	(4)	5 (a)	5 (b)	5 (c)	5 (d)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
MANUFACTURING														
5.	Mawmluh Cherra Cement Limited (MCCL)	2010-11	2011-12	(-)12.00	0.01	0.53	(-) 12.54	23.52	Supplementary audit is in progress	63.21	(-) 29.51	67.58	(-) 12.53	-
6.	Meghalaya Mineral Development Corporation Limited (MMDCL)	2009-10	2011-12	(-)0.58	-	0.09	(-) 0.67	1.47	-	2.32	(-) 5.94	(-) 2.17	(-) 0.67	-
Sector wise total				**(-)12.58**	**0.01**	**0.62**	**(-) 13.21**	**24.99**	**-**	**65.53**	**(-) 35.45**	**65.41**	**(-) 13.20**	**-**
SERVICES														
7	Meghalaya Tourism Development Corporation Limited	1994-95	2010-11	(-)0.38	0.16	0.12	(-) 0.66	1.70	-	6.66	(-) 3.12	8.96	(-) 0.5	-
Sector wise total				**(-)0.38**	**0.16**	**0.12**	**(-) 0.66**	**1.70**	**-**	**6.66**	**(-) 3.12**	**8.96**	**(-) 0.5**	**-**
POWER														
8	Meghalaya Energy Corporation Limited (MeECL)[7]	-	-	-	-	-	-	-	-	-	-	-	-	-
Sector wise total		-	-	-	-	-	-	-	-	-	-	-	-	-
MISCELLANEOUS														
9	Meghalaya Handloom & Handicrafts Development Corporation	2003-04	2011-12	(-)0.16	-	0.01	(-) 0.17	0.08	-	1.72	(-) 1.92	0.07	(-) 0.17	-
Sector wise total				**(-)0.16**	**-**	**0.01**	**(-) 0.17**	**0.08**		**1.72**	**(-) 1.92**	**0.07**	**(-) 0.17**	**-**
Total A (All sector wise working Government companies)				**(-)36.46**	**2.10**	**0.90**	**(-) 39.46**	**35.07**	-	**151.74**	**(-) 90.79**	**146.12**	**(-) 37.36**	**-**

[7] The Company (serial no.A-8) incorporated on 14 September 2009 has not finalised its first accounts and hence, has two accounts in arrears as on 30 September 2011.

Sl. No.	Sector & Name of the Company	Period of Accounts	Year in which finalised	Net Profit (+)/ Loss (-)				Turnover	Impact of Accounts Comments	Paid up Capital	Accumulated Profit (+)/ Loss (-)	Capital employed	Return on capital employed	Percentage return on capital employed
				Net Profit/ Loss before Interest & Depreciation	Interest	Depreciation	Net Profit/ Loss							
(1)	(2)	(3)	(4)	5 (a)	5 (b)	5 (c)	5 (d)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
B. Working Statutory corporations														
POWER														
1.	Meghalaya State Electricity Board[8]	2009-10	2011-12	9.08	39.56	25.94	(-) 56.42	415.74	Understatement of loss: ₹ 5.92 crore	202.00	(-) 449.03	1998.77	(-) 16.86	-
Sector wise total				**9.08**	**39.56**	**25.94**	**(-) 56.42**	**415.74**		**202.00**	**(-) 449.03**	**1998.77**	**(-) 16.86**	**-**
SERVICE														
2.	Meghalaya Transport Corporation[9]	2004-05	2008-09	(-)0.64	-	0.38	(-) 1.02	6.00	Understatement of loss	60.03	(-) 62.61	(-) 2.53	(-) 15.52	-
Sector wise total				**(-)0.64**	**-**	**0.38**	**(-) 1.02**	**6.00**		**60.03**	**(-) 62.61**	**(-) 2.53**	**(-) 15.52**	**-**
MISCELLANEOUS														
3.	Meghalaya State Warehousing Corporation	2009-10	2010-11	-	-	0.06	(-) 0.06	0.25	Understatement of loss:₹ 0.06 crore	3.16	(-) 0.10	2.50	(-) 0.06	-
Sector wise total				**-**	**-**	**0.06**	**(-) 0.06**	**0.25**		**3.16**	**(-) 0.10**	**2.50**	**(-) 0.06**	**-**
Total B (All sector wise working Statutory corporations)				**8.44**	**39.56**	**26.38**	**(-) 57.50**	**421.99**	**-**	**265.19**	**(-) 511.74**	**1998.74**	**(-) 32.44**	**-**
Grand Total (A + B)				**(-)28.02**	**41.66**	**27.28**	**(-) 96.96**	**457.06**	**-**	**416.93**	**(-)602.53**	**2144.86**	**(-) 69.80**	**-**
C. Non working Government companies														
MANUFACTURING														
1.	Meghalaya Electronics Development Corporation Limited (MEDCL)	2001-02	2011-12	(-) 0.65	0.69	0.10	(-) 1.44	0.37	-	4.72	(-) 16.01	3.01	(-) 0.75	-
2.	Meghalaya Phyto Chemicals Limited[10]	1984	1984	(-) 0.66	-	-	(-) 0.66	-	-	0.75	(-) 2.20	-	(-) 0.66	
Sector wise total				**(-) 1.31**	**0.69**	**0.10**	**(-) 2.10**	**0.37**	**-**	**5.47**	**(-) 18.21**	**3.01**	**(-) 1.41**	**-**
Total C (All sector wise non working Government companies)				**(-) 1.31**	**0.69**	**0.10**	**(-) 2.10**	**0.37**	**-**	**5.47**	**(-) 18.21**	**3.01**	**(-) 1.41**	**-**
Grand Total (A + B + C)				**(-) 29.33**	**42.35**	**27.38**	**(-) 99.06**	**457.43**	**-**	**422.40**	**(-) 620.74**	**2147.87**	**(-) 71.21**	**-**

[8] The Meghalaya State Electricity Board (MeSEB) ceased to exist with effect from 1 April 2010. Since the new Company (Meghalaya Energy Corporation Limited)(serial no.A-8), which started functioning (1 April 2010) in place of erstwhile MeSEB has not finalised its first accounts, the figures of erstwhile MeSEB have been included so as to present correct picture of overall financial results of the State PSUs.

[9] Government Rehabilitation Package (₹ 14.50 crore) received by the Corporation during 2004-05 has been included for arriving at Net loss figure(as non-operating revenue) but ignored while computing 'Return on Capital Employed'.

[10] Company (serial no.C-2) ceased to exist with effect from 24 June 2011.

APPENDIX 4.3

Statement showing budgetary outgo to State PSUs in the form of equity, loans, grants and subsidy received/receivable, guarantees received, waiver of dues, loans written off and loans converted into equity during the year and guarantee commitment at the end of March 2011

(Reference: Paragraph 4.1.4; Page 83)

(Figures in column 3 (a) to 6 (d) are ₹ in crore)

Sl. No.	Sector & Name of the Company	Equity/ loans received out of budget during the year 2010-11		Grants(G) and Subsidy(S) received during the year 2010-11				Guarantees received during the year and commitment at the end of the year[11]		Waiver of dues during the year			
		Equity	Loans	Central Government	State Government[12]	Others	Total	Received	Commitment	Loans repayment written off	Loans converted into equity	Interest/ penal interest waived	Total
(1)	(2)	3 (a)	3 (b)	4 (a)	4 (b)	4 (c)	4 (d)	5 (a)	5 (b)	6 (a)	6 (b)	6 (c)	6 (d)
A. Working Government Companies													
AGRICULTURE & ALLIED													
1.	Forest Development Corporation of Meghalaya Limited (FDCML)	-	-	-	0.40 (G)	-	0.40 (G)	-	-	-	-	-	-
Sector wise total		**-**	**-**	**-**	**0.40 (G)**	**-**	**0.40 (G)**	**-**	**-**	**-**	**-**	**-**	**-**
INFRASTRUCTURE													
2.	Meghalaya Industrial Development Corporation Ltd	0.49	-	-	-	-	-	-	-	-	-	-	-
3.	Meghalaya Government Construction Corporation Ltd	-	-	-	1.05 (S)	-	1.05 (S)	-	1.00	-	-	-	-
Sector wise total		**0.49**	**-**	**-**	**1.05 (S)**	**-**	**1.05 (S)**	**-**	**1.00**	**-**	**-**	**-**	**-**
MANUFACTURE													
4.	Meghalaya Mineral Development Corporation Ltd	-	-	-	0.62 (G)	-	0.62 (G)	-	-	-	-	-	-
5	Mawmluh Cherra Cement Limited (MCCL)	13.00	-	-	-	-	-	-	-	-	-	-	-
Sector wise total		**13.00**	**-**	**-**	**0.62 (G)**	**-**	**0.62 (G)**	**-**	**-**	**-**	**-**	**-**	**-**

[11] Figures indicate total guarantees (Principal) outstanding at the end of the year.
[12] (G) stands for 'Grants' and '(S)' stands for 'Subsidy' received during the year.

Sl. No.	Sector & Name of the Company	Equity/ loans received out of budget during the year		Grants and subsidy received during the year				Guarantees received during the year and commitment at the end of the year		Waiver of dues during the year			
		Equity	Loans	Central Government	State Government	Others	Total	Received	Commitment	Loans repayment written off	Loans converted into equity	Interest/ penal interest waived	Total
(1)	(2)	3 (a)	3 (b)	4 (a)	4 (b)	4 (c)	4 (d)	5 (a)	5 (b)	6 (a)	6 (b)	6 (c)	6 (d)
SERVICE													
6.	Meghalaya Handloom & Handicraft Development Corporation	0.30	-	-	-	-	-	-	-	-	-	-	-
	Sector wise total	**0.30**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
MISCELLANEOUS													
7	Meghalaya Energy Corporation Limited	-	23.44	-	130.45 (G)	12.32[13] (S)	130.45 (G) 12.32 (S)	31.77	645.51	-	-	-	-
Sector wise total		**-**	**23.44**	**-**	**130.45 (G)**	**12.32 (S)**	**130.45 (G) 12.32 (S)**	**31.77**	**645.51**	**-**	**-**	**-**	**-**
Total A (All sector wise working Government companies)		**13.79**	**23.44**	**-**	**131.47 (G) 1.05 (S)**	**12.32 (S)**	**131.47 (G) 13.37 (S)**	**31.77**	**646.51**	**-**	**-**	**-**	**-**
B. Working Statutory corporations													
SERVICE													
1.	Meghalaya Transport Corporation	2.00	-	-	3.51 (S)	-	3.51 (S)	-	-	-	-	-	-
Sector wise total		**2.00**	**-**	**-**	**3.51 (S)**	**-**	**3.51 (S)**	**-**	**-**	**-**	**-**	**-**	**-**
MISCELLANEOUS													
2.	Meghalaya State Warehousing Corporation	0.20	-	-	-	-	-	-	-	-	-	-	-
Sector wise total		**0.20**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total B (All sector wise working Government statutory Corporations)		**2.20**	**-**	**-**	**3.51 (S)**	**-**	**3.51 (S)**	**-**	**-**	**-**	**-**	**-**	**-**
Grand Total (A + B)		**15.99**	**23.44**	**-**	**131.47(G) 4.56 (S)**	**12.32 (S)**	**131.47 (G) 16.88 (S)**	**31.77**	**646.51**	**-**	**-**	**-**	**-**

[13] Including subsidy from REC.

APPENDIX 4.4

Statement showing investment made by the State Government in PSUs whose accounts are in arrears

(Reference: Paragraph 4.1.7; Page 87)

(₹ in crore)

Sl.No.	Name of the Company	Year up to which accounts finalised	Paid-up capital as per latest finalised accounts	Investment made by the State Government during the years for which accounts are in arrears				
				Year	Equity	Loan	Grant	Subsidy
A. WORKING GOVERNMENT COMPANIES								
1.	Forest Development Corporation of Meghalaya Limited	2002-03	1.97	2006-07 to 2010-11	-	-	1.27 [14]	-
2.	Meghalaya Industrial Development Corporation Limited	2004-05	74.63	2005-06 to 2008-09	14.86[15]	-	0	-
3.	Meghalaya Mineral Development Corporation Ltd	2009-10	2.32	2010-11	-	-	0.62	-
4	Meghalaya Tourism Development Corporation Limited	1994-95	6.66	1995-96 to 2007-08	1.31[16]	-	4.52[17]	-
5	Meghalaya Handloom and Handicrafts Development Corporation Limited (Subsidiary)	2003-04	1.72	2004-05 to 2010-11	1.64[18]	-	-	-
6	Meghalaya Energy Corporation Limited	2009-10	202.00	2010-11	-	23.44	130.45	-
7	Meghalaya Government Construction Corporation Ltd	2009-10	0.75	2010-11	-	-	-	1.05
	Total A		**290.05**		**17.81**	**23.44**	**136.86**	**1.05**
B. WORKING STATUTORY CORPORATIONS								
1.	Meghalaya Transport Corporation	2004-05	60.03	2005-06 to 2010-11	17.75 [19]	-	-	9.72[20]
2.	Meghalaya State Ware-housing Corporation	2009-10	2.81	2010-11	0.20	-	-	-
	Total B		**62.84**		**17.95**	**-**	**-**	**9.72**
	Grand Total (A+B)		**352.89**		**35.76**	**23.44**	**136.86**	**10.77**

[14] Includes ₹ 17.44 lakh in 2006-07; ₹ 10 lakh in 2007-08, ₹ 30 lakh in 2008-09 , ₹ 30 lakh in 2009-10 and ₹ 40 lakh in 2010-11.

[15] Includes ₹ 835 lakh in 2006-07, ₹ 202 lakh in 2007-08, ₹ 400 lakh in 2008-09 and ₹ 49 lakh in 2010-11.

[16] Equity investment of ₹ 1.31 crore was made in the year 2000-01.

[17] Grant includes ₹ 4.89 lakh in 1995-96, ₹ 26.71 lakh in 1997-98, ₹ 3.75 lakh in 1999-2000, ₹ 21.86 lakh in 2000-01, ₹ 25.39 lakh in 2001-02, ₹ 12.52 lakh in 2002-03, ₹ 3.28. lakh in 2003-04, ₹ 262.87 lakh in 2004-05, ₹ 12 lakh in 2005-06, ₹ 26.98 lakh in 2006-07 and ₹ 51.43 lakh in 2007-08.

[18] Includes ₹ 13 lakh in 2004-05, ₹ 18 lakh in 2005-06, ₹ 24 lakh in 2006-07, ₹ 24 lakh in 2007-08, ₹ 25 lakh in 2008-09, ₹ 30 lakh in 2009-10 and ₹ 30 lakh in 2010-11.

[19] Equity Investment of ₹ 300 lakh in 2005-06, ₹ 300 lakh in 2006-07, ₹ 300 lakh in 2007-08, ₹ 375 lakh in 2008-09, ₹ 300 lakh in 2009-10 and ₹ 200 lakh in 2010-11.

[20] Subsidy includes ₹ 283.50 lakh in 2008-09, ₹ 337.50 lakh in 2009-10 and ₹ 351.00 lakh in 2010-11.

APPENDIX 4.5

Statement showing financial position of Statutory corporations

(Reference: Paragraph 4.1.6; Page 84)

(₹ in crore)

Sl. No.	Particulars	2007-08	2008-09	2009-10
(1)	(2)	(3)	(4)	(5)
1.	**Meghalaya State Electricity Board**			
	A. Liabilities			
	(a) Paid up Capital	202.00	202.00	202.00
	(b) Loans from Government	162.75	496.13	550.76
	(c) Other long-term loans (including bonds)	964.30	1358.12	1949.85
	(d) Reserves and Surplus	2.70	2.98	2.98
	(e) Current liabilities and Provisions	643.45	315.88	359.66
	Total – A	**1975.20**	**2375.11**	**3065.25**
	B. Assets			
	(a) Gross fixed assets	525.55	549.67	607.51
	Less: Depreciation	249.22	264.83	295.00
	Net fixed assets	276.33	284.84	312.51
	(b) Capital works-in-progress	736.83	1013.42	1330.81
	(c) Deferred Cost	18.45	21.16	24.08
	(d) Current assets	474.19	581.22	715.11
	(e) Investments	66.37	80.20	226.27
	(f) Intangible assets	0.59	1.66	7.44
	(g) Accumulated losses	402.44	392.61	449.03
	Total – B	**1975.20**	**2375.11**	**3065.25**
	C. Capital employed	**843.91**	**1563.60**	**1998.77**

2.	**Meghalaya Transport Corporation**	**2002-03**	**2003-04**	**2004-05**
	A. Liabilities			
	(a) Capital (including Capital loan and equity capital)	53.79	57.28	60.03
	(b) Reserves and Surplus	0.11	0.12	0.12
	(c) Borrowings:			
	Government	-	-	-
	Others	-	-	-
	(d) Funds (excluding depreciation fund)	0.43	0.41	0.49
	(e) Trade dues and other current liabilities (including provisions[21])	17.89	21.31	17.89
	Total – A	**72.22**	**79.12**	**78.53**
	B. Assets			
	(a) Gross Block	7.72	7.72	8.59
	Less: Depreciation	4.92	5.26	6.64
	Net fixed assets	2.80	2.46	1.95
	(b) Capital works-in-progress (including cost of Chassis)	-	-	-
	(c) Investments	0.73	1.62	0.56
	(d) Current assets, loans and advances	10.09	12.88	13.40
	(e) Deferred cost	-	-	-
	(f) Accumulated losses	58.60	62.16	62.62
	Total – B	**72.22**	**79.12**	**78.53**
	C. Capital employed[22]	**(-) 5.00**	**(-) 5.97**	**(-) 2.54**

[21] Excluding depreciation of ₹ 4.92 crore, ₹ 5.26 crore and ₹ 6.64 crore of 2002-03, 2003-04 and 2004-05 respectively.

[22] Capital employed represents net fixed assets (including capital work-in-progress) plus working capital. While working out capital employed, the element of deferred cost and investment are excluded from current assets.

3.	Meghalaya State Warehousing Corporation	2007-08	2008-09	2009-10
	A. Liabilities			
	(a) Paid-up Capital	2.81	2.81	3.16
	(b) Reserves and Surplus[23]	0.19	0.21	0.42
	(c) Borrowings :			
	Government	-	-	-
	Others	-	-	-
	(d) Trade dues and other current liabilities (including provision)	0.04	0.24	0.20
	Total – A	**3.04**	**3.26**	**3.78**
	B. Assets			
	(a) Gross Block	1.84	2.02	2.11
	Less : Depreciation	0.76	0.81	0.87
	Net fixed assets	1.08	1.21	1.24
	(b) Capital works-in-progress	--	--	-
	(c) Investments	0.42	0.37	0.98
	(d) Current assets, loans and advances	1.54	1.68	1.46
	(e) Accumulated losses	-	-	0.10
	Total – B	**3.04**	**3.26**	**3.78**
	C - Capital employed	**2.58**	**2.65**	**2.50**

[23] Excluding depreciation fund

APPENDIX 4.6

Statement showing working results of Statutory corporations

(Reference: Paragraph 4.1.6; Page 84)

(₹ in crore)

Meghalaya State Electricity Board				
Sl. No.	**Particulars**	**2007-08**	**2008-09**	**2009-10**
(1)	**(2)**	**(3)**	**(4)**	**(5)**
1.	(a) Revenue receipts	318.15	392.51	415.74
	(b) Subsidy/Sub-vention from Government	32.80	11.70	12.31
	(c) Other income	32.39	39.78	58.50
	Total	**383.34**	**443.99**	**486.55**
2.	Revenue expenditure (net of expenses capitalised including write off of intangible assets but excluding depreciation and interest)	315.23	344.70	372.03
3.	Gross surplus(+)/ deficit(-) for the year (1-2)	68.11	99.29	114.52
4.	Adjustments relating to previous years	(-)21.96	(-)36.10	(-)105.44
5.	Final gross surplus (+)/deficit (-) for the year (3+4)	46.15	63.19	9.08
6.	**Appropriations**:			
	(a) Depreciation (less capitalised)	12.90	14.12	25.94
	(b) Interest on Government loans	16.67	18.23	19.91
	(c) Interest on other loans, bonds, advance, *etc*. and finance charges	59.57	69.34	83.50
	(d) Total interest on loans and finance charges (b+c)	76.24	87.57	103.41
	(e) Less : interest capitalised	44.47	48.33	63.85
	(f) Net interest charged to revenue (d-e)	31.77	39.24	39.56
	(g) Total appropriation (a+f)	44.67	53.36	65.50
7.	Surplus(+)/ deficit(-) before accounting for subsidy from State Government {5-6(g)-1(b)}	(-)31.32	(-)1.87	(-)68.73
8.	Net surplus (+)/ deficit(-){5-6(g)}	1.48	9.83	(-)56.42
9.	Total return on capital employed	33.25	49.07	(-)16.86
10.	Percentage of return on capital employed	3.94	3.14	-

Meghalaya Transport Corporation				
Sl. No.	**Particulars**	**2002-03**	**2003-04**	**2004-05**
1.	**Operating :**			
	(a) Revenue	5.54	5.93	6.00
	(b) Expenditure	9.81	9.88	19.13
	(c) Surplus(+)/deficit(-)	(-)4.27	(-)3.95	(-)13.13
2.	**Non-operating**			
	(a) Revenue	0.35	0.22	0.23
	(b) Expenditure	-	-	-
	(c) Surplus(+)/deficit(-)	0.35	0.22	0.23
	Total			
	(a) Revenue	5.89	6.15	6.23
	(b) Expenditure	9.81	9.88	19.13
	(c) Surplus(+)/deficit(-)	(-)3.92	(-)3.73	(-)12.90
3.	Interest on capital and loans	-	-	-
4.	**Total return on capital employed**	**(-)3.92**	**(-)3.73**	**(-)12.90**

Meghalaya State Warehousing Corporation				
Sl. No.	**Particulars**	**2007-08**	**2008-09**	**2009-10**
1.	**Income**			
	(a) Warehousing charges	0.20	0.23	0.25
	(b) Other income	0.09	0.11	0.08
	Total – 1	**0.29**	**0.34**	**0.33**
2.	**Expenses**			
	(a) Establishment charges	0.19	0.22	0.31
	(b) Other Expenses	0.08	0.09	0.08
	Total – 2	**0.27**	**0.31**	**0.39**
3.	Profit (+)/ Loss(-) before tax	0.02	0.03	(-)0.06
4.	Other appropriations	-	-	0.03
5.	Amount available for dividend	0.02	0.03	-
6.	Dividend for the year	-	-	-
7.	Total return on capital employed[24]	0.01	0.03	(-)0.06
8.	Percentage of return on capital employed	0.39	1.05	-

[24] Net surplus/deficit plus total interest charged to Profit & Loss Account (less interest capitalised).

APPENDIX 4.7

Statement showing source-wise purchase of power

(Reference: Paragraph 4.2.12.1; Page 117)

(in Million Units/ rate paise per Unit)

Year		State Generation PSUs	Central Sector	IPPs (Short term)	Others (U.I)	Total
2006-07	MUs	389.09	558.0	166.55	204.70	1318.39
	Paise/unit	NA	199.01	366.26	224.04	
2007-08	MUs	663.06	874.52	20.52	29.11	1587.21
	Paise/unit	NA	185.14	397.17	635.18	
2008-09	MUs	552.84	905.96	29.28	33.68	1521.76
	Paise/unit	NA	184.14	158.81	301.28	
2009-10	MUs	534.79	748.23	108.02	91.03	1482.07
	Paise/unit	NA	206.72	235.86	257.61	
2010-11	MUs	507.89	953.79	85.52	89.83	1637.03
	Paise/unit	NA	238.06	13.01	343.02	
Total	**MUs**					**7546.46**

*NA-Not available

APPENDIX 4.8

Statement showing consumer category-wise average cost of supply *vis a vis* approved tariff and cross subsidy

(Reference: Paragraph 4.2.17.3; Page 134)

Consumer category	2006-07			2007-08			2008-09			2009-10			2010-11		
	ACOS (paise)[25]	Appro-ved tariff per unit (paise)[26]	Cross subsidy in *per cent*	ACOS (paise)	Appro-ved tariff per unit (paise)	Cross subsidy in *per cent*	ACOS (paise)	Appro-ved tariff per unit (paise)	Cross subsidy in *per cent*	ACOS (paise)	Appro-ved tariff per unit (paise)	Cross subsidy in *per cent*	ACOS (paise)	Appro-ved tariff per unit (paise)	Cross subsidy in *per cent*
Domestic (LT)	427	258	(+) 39.58	326	258	(+) 20.86	376	300	(+) 20.21	377	285	(+) 24.40	501	258	(+)48.50
Commercial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT[27]	427	453	(-) 6.09	326	453	(-)38.96	376	458	(-) 21.81	377	458	(-) 21.49	501	387	(+)22.75
HT	427	260	(+) 39.11	326	260	(+) 20.25	376	350	(+) 6.91	377	370	(+) 1.86	501	339	(+)32.34
Industrial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT	427	427	0	326	427	(-)30.98	376	460	(-) 22.34	377	460	(-) 22.02	501	336	(+)32.93
HT	427	266	(+) 37.70	326	266	(+) 18.40	376	445	(-) 18.35	377	330	(+) 12.47	501	383	(+)23.55
EHT	427	236	(+) 44.73	326	236	(+) 27.61	376	435	(-) 15.69	377	320	(+) 15.12	501	361	(+)27.94
Agricultural	427	120	(+) 71.90	326	120	(+) 63.19	376	150	(+) 60.12	377	130	(+) 65.52	501	130	(+)74.05
Others[28]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LT	427	462	(-) 8.20	326	462	(-)41.72	376	464	(-) 23.40	377	462	(-) 22.55	501	410	(+)18.16
HT	427	293	(+) 31.38	326	260	(+) 20.25	376	290	(+) 22.87	377	530	(-) 40.58	501	570	(-)13.77

[25] Average cost of supply (ACOS) for all the five years was taken as actual unit cost of power from ARR/Tariff petition filed by the MeECL for the year 2011-12

[26] MSERC after coming into existence approved first tariff for the year 2007-08. As such approved tariff rate for the year 2006-07 was taken from Electricity tariff approved by MeSEB which was effective from 01 November 2005. In all other case, approved tariff rates are taken on an average basis from Tariff orders of MSERC.

[27] LT-Low Tension, HT-High Tension and EHT- Extra High Tension.

[28] Including Public lighting, Water supply, General purposes *etc*.