# Chapter II

# Performance Audits relating to Government Companies

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## Gujarat Energy Transmission Corporation Limited

### 2.1 Performance Audit of Power Transmission Utilities

### Executive Summary

***With a view to supply reliable and quality power to all by 2012, the Government of India (GoI) prepared the National Electricity Policy (NEP) in February 2005 which stated that the Transmission System required adequate and timely investment alongwith efficient and coordinated action to develop a robust and integrated power system for the country. It also, inter-alia recognised the need for development of National and State Grid with the coordination of Central/ State Transmission Utilities. Gujarat Energy Transmission Corporation Limited (GETCO) is mandated to provide an efficient, adequate and properly coordinated grid management and transmission of energy in Gujarat.***

***Planning and Development***

***GETCO's transmission network at the beginning of 2007-08 consisted of 880 Extra High Tension (EHT) Sub-stations (SSs) with a transmission capacity of 43,742 MVA and 35,169 CKM of EHT transmission lines. The transmission network as on 31 March 2012 consisted of 1,270 EHT SSs with a transformation capacity of 56,594 MVA and 44,946 CKM of EHT transmission lines.***

***Against the targeted construction of 400 EHT SSs and laying of 12,261 CKM of EHT lines, GETCO constructed 390 EHT SSs and 9,777 CKM EHT lines during the five year period (achievement of 97.5 per cent and 79.74 per cent respectively). The transmission capacity added was 12,852 MVA for the five-year period ending 2011-12.***

***Project management of transmission system***

***Out of the 390 SSs and 550 lines constructed during 2007-12, 289 SSs and 550 lines were commercially commissioned upto 31 March 2012, of which 71 SSs and 69 lines were test checked in audit. There were delays in commissioning ranging from 6-50 months and 6-12 months in 25 SSs and 15 lines respectively. Besides, in two SSs and 10 lines, which were in progress as on 31 March 2012, there were delays ranging between two to three years and 12 to 68 months respectively.***

***Eight SSs were commissioned from September 2009 to 31 March 2012 and six SSs were commissioned during April 2012 to September 2012 after delays of 4 to 19 months from the date of back charging. These assets were created at a cost of ₹ 43.44 crore from borrowed funds. Out of the 101 SSs not commercially commissioned upto 31 March 2012, five SSs were back charged in 2010-11 leading to blocking of funds of ₹10.44 crore for a period of 18-22 months.***

***Funds of ₹ 243 crore in respect of 17 completed lines and funds of ₹99.97 crore in respect of 12 lines in progress were blocked up for periods ranging from 5-17 months and 7-25 months respectively due to delayed decision on Right of Way (RoW) compensation.***

***Performance of transmission system***

***During the period under review GETCO augmented transformation capacity by 7,865 MVA besides adding capacity of 4,987 MVA through construction of SSs. The installed overall transmission***

***capacity at 220 KV always remained in excess of peak demand even after allowing 30 per cent towards redundancy. The capacity at the end of 2011-12 was excess by 825 MVA created at the cost of ₹24.26 crore that was passed on to the consumers.***

***Inappropriate conductors were used in an important line providing electricity to Indo Pak Border resulting in infructuous expenditure of ₹2.49 crore.***

***The transmission losses increased from 3.85 per cent in 2007-08 to 4.30 per cent in 2008-09 and 2009-10, decreased to 3.85 per cent in 2010-11 and again increased to 3.97 per cent in 2011-12. However, the transmission loss was within the norms fixed by GERC in all the years except 2009-10. The transmission loss was within the norms in terms of CEA norms of four per cent also in all years except in 2008-09 and 2009-10.***

***Grid management***

***The Gujarat state Load Despatch Centre operated by GETCO ensures integrated operation of power system in the State. Remote Terminal Units/Sub-station Management systems (RTUs/SMSs) were not provided in all the 220 and 132 KV SSs.***

***Energy accounting and audit***

***Energy accounting and audit is necessary to assess and reduce the transmission losses. As on 31 March 2012 there were 1,123 interface boundary metering points between Generation to Transmission (GT) and 2,216 metering points between Transmission to Distribution (TD). All the GT and TD points were provided with meters.***

***Financial management***

***The Profit before tax of GETCO increased by 702 per cent from ₹38.97 crore in 2007-08 to ₹312.64 crore in 2011-12. The debt-equity ratio of GETCO increased from 1.42:1 to 7.02:1 during the period from 2007-08 to 2011-12 due to fresh borrowings.***

***Monthly transmission invoices were raised by GETCO during 2009-10 to 2011-12 after a delay ranging from 7-22 days leading to blocking of monthly receivables to the extent of ₹84 crore to ₹135 crore for the delayed period and consequential interest loss of ₹17.42 crore. The delay could have been avoided by adopting the previous month's pooled losses for invoice purpose and not waiting for the intimation of current month's loss by WRPC.***

***Non revision of pro rata charges since March 2007 led to net under recovery of ₹2.81 crore for the additional load released to consumers during 2008-09 to 2011-12.***

***Material management***

***The closing stock in terms of months' consumption reduced from 7.5 in 2008-09 to 3.6 in 2009-10 and increased to 4.9 in 2011-12. However, no norms were fixed for maintaining the stock in terms of months' consumption.***

***Conclusion***

***Substations could not be commercially commissioned as planned due to delay in land acquisition, delay in completion of associated lines and non synchronisation of construction activities. Failure to address RoW compensation led to delay in completion of lines. Delayed raising of monthly invoices led to blocking of funds. Evaluation of schemes was not done.***

***Recommendations***

***GETCO may ensure completion of substations and lines as per schedule. Raising of transmission invoices in time should be ensured. Studies for evaluating benefits of transmissions schemes after their completion may be conducted.***

## Introduction

**2.1.1** With a view to supply reliable and quality power to all by 2012, the Government of India (GoI) prepared the National Electricity Policy (NEP) in February 2005 which stated that the Transmission System required adequate

and timely investment besides efficient and coordinated action to develop a robust and integrated power system for the country. It also, inter-alia recognised the need for development of National and State Grid with the coordination of Central/ State Transmission Utilities. Transmission of electricity and grid operations in the State of Gujarat are managed and controlled by Gujarat Energy Transmission Corporation Limited (GETCO) which is mandated to provide efficient, adequate and properly coordinated grid management and transmission of energy. GETCO was incorporated on 19 May 1999 under the Companies Act 1956, and reports to the Energy and Petrochemicals Department. GETCO was vested with the assets and liabilities of erstwhile Gujarat Electricity Board relating to transmission network with effect from 1 April 2005 pursuant to the enactment of Gujarat Electricity Industry (Reorganisation & Regulation) Act, 2003.

**2.1.2** The Management of GETCO is vested in a Board of Directors (BoD) comprising Chairman, Managing Director and five other Directors appointed by the Government of Gujarat (GoG). The day to day affairs are carried out by the Managing Director who is the chief executive of GETCO with the assistance of Chief Engineers heading Project, Engineering, Transmission, Load Dispatch Units and General Managers heading Finance and Human Resource departments. In the field, GETCO consists of 13 Circle offices[1] located in three zones headed by Superintending Engineers and Additional Chief Engineers respectively.

During 2007-08, GETCO transmitted 55,818 MUs of energy which increased to 67,848 MUs during 2011-12, i.e., an increase of 21.55 *per cent* in five years. As on 31 March 2012, GETCO had transmission network of 44,946 CKM (Circuit Kilometers) and 1,270 Sub-stations (SSs) with installed capacity of 56,594 MVA, capable of annually transmitting 1,49,559 MUs[2]. The turnover of GETCO was ₹ 1,548.23 crore in 2011-12, which was equal to 0.26 *per cent* of State Gross Domestic Product of ₹ 5,91,175 crore. It employed 12,179 employees as on 31 March 2012.

A Performance Audit on construction of power transmission lines and associated SSs was included in the Report of the Comptroller and Auditor General of India (Commercial), Government of Gujarat for the year ended 31 March 2005. The Report was discussed by the Committee on Public Undertakings (COPU) in August 2008.

## Scope and Methodology of Audit

**2.1.3** The present performance audit conducted during December 2011 to June 2012 covers performance of GETCO during the period from 2007-08 to 2011-12. Audit examination involved scrutiny of the records of different wings at the Corporate Office, State Load Dispatch Centre (SLDC), four

[1] Anjar, Amreli, Bharuch, Gondal, Himmatnagar, Jambuva, Jamnagar, Junagadh, Mehsana, Nadiad, Navsari, Palanpur and Surendranagar.

[2] Transmission capacity is worked out considering 220 KV as basic network i.e., 18,970 MVA × 0.9 power factor = 17,073 MW × 1,000 × 24 hours × 365 days = 1,49,559 MUs.

circles[3] and ten divisions[4] there under (representing 38 *per cent* of total CKM) located in all the three zones[5].

GETCO constructed 390 SSs (capacity: 4,987 MVA) and 550 lines (capacity: 9,777 CKM) as well as augmented existing transformation capacity by 7,865 MVA during the review period. In the four circles, selected based on the highest transmission capacity in CKM, the construction of 71 SSs (capacity: 1,790 MVA), 69 lines (capacity: 1,266 CKM) and augmentation of existing transformation capacity of 2,715 MVA were examined. This sample represented 35 *per cent* of capacity addition and 13 *per cent* of CKM addition achieved during the review period.

The methodology adopted for attaining audit objectives with reference to audit criteria consisted of explaining audit objectives to top management, scrutiny of Board Minutes, annual reports, budgets, tariff fixation correspondence with regulatory authorities and progress reports at Head Office, project implementation records at selected units, interaction with the auditee personnel, analysis of data with reference to audit criteria, raising of audit queries and interaction with the management during Entry and Exit conferences.

## Audit Objectives

**2.1.4** The objectives of the audit were to examine the performance of GETCO in order to assess whether:

- the transmission system of the State was developed as per plan and the same was in accordance with the National Electricity Plan;
- construction and commissioning of the transmission system were carried out without time and cost over-run;
- the performance of transmission system was efficient to ensure supply of quality power with minimum interruptions;
- infrastructures for management of grid including system for disaster management were adequate to ensure efficient operations;
- efficient and effective systems for energy accounting and financial management were in place to ensure optimum and timely realisation of revenue;
- efficient and effective system of inventory control mechanism existed;
- there was a monitoring system in place to review the achievement of benefits from the schemes implemented and take corrective measures to overcome deficiencies.

[3] Anjar, Jambuva, Nadiad and Surendranagar.
[4] Bhuj, Bodeli, Godhra, Gotri, Karamsad, Limbdi, Nakhatrana, Ranasan, Samakhyali and Viramgam.
[5] Bharuch, Mehsana and Rajkot.

## Audit Criteria

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

- provisions of National Electricity Plan and National Tariff Policy ;
- perspective plan and project reports of GETCO;
- standard procedures framed for award of contracts with reference to principles of economy, efficiency, effectiveness, equity and ethics;
- circulars and manuals for filing Annual Revenue Return (ARR) with SERC;
- Manual on Transmission Planning Criteria (MTPC);
- Code of Technical Interface (CTI)/ Grid Code consisting of planning, operation, connection codes;
- directions from the GoG/ Ministry of Power (MoP);
- norms/guidelines issued by SERC/ Central Electricity Authority (CEA);
- provisions of "Best Practices in Transmission";
- report of the Task Force constituted by the Ministry of Power to analyse critical elements in transmission project implementation; and
- significant observations in reports of Regional Power Committee (RPC)/ Regional Load Dispatch Centre (RLDC).

## Brief description of transmission process

**2.1.6** Transmission of electricity is defined as bulk transfer of power over long distances at high voltages, generally at 132 KV and above. Electric power generated at relatively low voltages in power plants is stepped up to high voltage power before it is transmitted to reduce the loss in transmission and to increase efficiency in the Grid. Sub-stations are facilities within the high voltage electric system used for stepping-up/stepping down voltages from one level to another, connecting electric systems and switching equipment in and out of the system. The step up transmission SSs at the generating stations use transformers to increase the voltages for transmission over long distances.

Transmission lines carry high voltage electric power. The step down transmission SSs, thereafter, decreases voltages to sub transmission voltage levels for distribution to consumers. The distribution system includes lines, poles, transformers and other equipment needed to deliver electricity at specific voltages.

Electrical energy cannot be stored; hence generation must be matched to the need. Therefore, every transmission system requires a sophisticated system of control called Grid management to ensure balancing of power generation closely with demand.

## Audit Findings

**2.1.7** We explained the audit objectives for this performance audit to GETCO during an 'Entry Conference' held on 3 February 2012. Subsequently, audit findings were reported to GETCO and the GoG in August 2012. The Exit Conference was held on 12 September 2012, which was attended by the Managing Director and other officials of GETCO. The Management replied (September 2012) to the audit findings subsequent to the Exit Conference and the views expressed by them have been duly considered and incorporated while finalising the performance audit. The audit findings are discussed in subsequent paragraphs.

## Planning and Development

### *National Electricity Plan*

**2.1.8** The Central Transmission Utility (CTU) and State Transmission Utilities (STUs) have the key responsibility of network planning and development based on the National Electricity Plan in coordination with all concerned agencies. The STU is responsible for planning and development of the intra-state transmission system in accordance with demand assessment by DISCOMs. GETCO's transmission network at the beginning of 2007-08 consisted of 880 Extra High Tension (EHT) SSs[6] with a transmission capacity of 43,742 MVA and 35,169 CKM of EHT transmission lines. The transmission network as on 31 March 2012 consisted of 1,270 EHT SSs with a transformation capacity of 56,594 MVA and 44,946 CKM of EHT transmission lines.

As discussed in succeeding paragraph **2.1.23**, the installed overall transmission capacity at 220 KV always remained in excess of peak demand during entire review period from 2007-08 to 2011-12 even after considering 30 *per cent* redundancy. The capacity at the end of 2011-12 was in excess by 825 MVA, which was created at a cost of ₹ 24.26 crore[7]. This cost was passed on to the consumers. From 2008-09 GETCO is preparing and submitting yearly State Transmission Utility Report to GERC.

### *Transmission network and its growth*

**2.1.9** The transmission capacity of GETCO at EHT level during 2007-08 to 2011-12 is given below:

[6] Including 750 SSs of 66 KV.
[7] 825 MVA @ ₹ 0.0294 crore per MVA (cost of 100 MVA transformer @ ₹ 2.94 crore).

| Sl. No | Description | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | Total |
|---|---|---|---|---|---|---|---|
| **A. Number of Sub-stations (Numbers)** | | | | | | | |
| 1 | At the beginning of the year | 880 | 930 | 990 | 1,050 | 1,190 | |
| 2 | Additions planned for the year | 50 | 60 | 60 | 140 | 90 | 400 |
| 3 | Added during the year | 50 | 60 | 60 | 140 | 80 | 390 |
| 4 | Total sub stations at the end of the year **(1+3)** | 930 | 990 | 1,050 | 1,190 | 1,270 | |
| 5 | Shortfall in additions **(3-2)** | 0 | 0 | 0 | 0 | (-)10 | (-)10 |
| **B. Transformers capacity (MVA)** | | | | | | | |
| 1 | Capacity at the beginning of the year | 43,742 | 45,403 | 47,818 | 49,860 | 51,646 | |
| 2 | Additions/augmentation planned for the year | 1,218 | 2,420 | 2,360 | 4,750 | 3,876 | 14,624 |
| 3 | Capacity added during the year | 1,661 | 2,415 | 2,042 | 1,786 | 4,948 | 12,852 |
| 4 | Capacity at the end of the year **(1+3)** | 45,403 | 47,818 | 49,860 | 51,646 | 56,594 | |
| 5 | Shortfall in additions/ augmentation **(3-2)** | 443 | (-)5 | (-)318 | (-)2,964 | 1,072 | (-)1,772 |
| **C Transmission lines (CKM)** | | | | | | | |
| 1 | At the beginning of the year | 35,169[8] | 36,388 | 37,415 | 39,519 | 41,695 | |
| 2 | Additions planned for the year | 616 | 1,084 | 3,110 | 4,659 | 2,792 | 12,261 |
| 3 | Added during the year | 1,219 | 1,027 | 2,104 | 2,176 | 3,251 | 9,777 |
| 4 | Total lines at the end of the year **(1+3)** | 36,388 | 37,415 | 39,519 | 41,695 | 44,946 | |
| 5 | Excess/Shortfall in additions **(3-2)** | 603 | (-)57 | (-)1,006 | (-) 2,483 | 459 | (-)2,484 |

It would be seen from the above that against the targeted construction of 400 EHT SSs and laying of 12,261 CKM of EHT lines, GETCO constructed 390 EHT SSs and 9,777 CKM of EHT lines during the five year period (achieving 97.5 *per cent* and 79.74 *per cent* target respectively). The transmission capacity added was 12,852 MVA (87.88 *per cent*) for the five-year period ending 2011-12 as against the planned capacity addition of 14,624 MVA. Thus, there was a net shortfall in capacity addition by 1,772 MVA at the end of the year 2011-12.

The Management stated (December 2012) that the shortfall in capacity addition in 2010-11 was on account of a capacity of 747 MVA not being accounted due to failure upon commissioning. The shortfall in 2010-11 was made upto the extent of 1,000 MVA in 2011-12. The main reason for slippages in erecting transmission lines was Right of Way (RoW) problems, delay in obtaining clearance from Forest/Railway authorities and non completion of work by the contractors. However, there were no operational constraints due to shortfall in achievement of target in respect of CKM of line as there was sufficient capacity.

The particulars of voltage-wise capacity additions planned, actual additions, shortfall in capacity, etc., during review period are given in the ***Annexure* 7.**

## Project management of transmission system

**2.1.10** A transmission project involves various activities from conceptualisation to commissioning. Major activities in a transmission project are (i) Project formulation, appraisal and approval phase and (ii) Project execution Phase. For reduction in project implementation period, the Ministry

[8] Includes 69 CKM of 33 KV lines.

of Power, Government of India constituted (February 2005), a Task Force on transmission projects which recommended (July 2005) various remedial actions to accelerate the completion of transmission systems.

**2.1.11** Notwithstanding the elaborate guidelines given by the Task Force for timely completion of the projects, GETCO failed to execute several SSs and Lines even after six months from scheduled date of completion during 2007-08 to 2011-12, as given in the table below:

| Capacity in KV | Total No. Constructed | | No. test checked by Audit | | Delay in commissioning (Numbers) | | Time overrun till commercial commissioning (range in months) | |
|---|---|---|---|---|---|---|---|---|
| | SSs | Lines | SSs | Lines | SSs | Lines | SSs | Lines |
| 400 | 2 | 6 | 1 | 2 | 0 | 2 | 0 | 9-11 |
| 220 | 14 | 48 | 5 | 4 | 5 | 4 | 21-50 | 6-12 |
| 132 | 1 | 5 | 0 | 2 | 0 | 1 | 0 | 8 |
| 66 | 373 | 491 | 65 | 61 | 20 | 8 | 6-36 | 6-11 |
| **Total** | **390** | **550** | **71** | **69** | **25** | **15** | **6-50** | **6-12** |

**Source:** Data as provided by GETCO

Out of the 390 SSs and 550 lines constructed during 2007-08 to 2011-12, 101 SSs were not commercially commissioned as on 31 March 2012, though all the lines were commissioned. Out of the balance 289 SSs and 550 lines commercially commissioned, 71 SSs and 69 lines were test checked in audit wherein, it was found that there were delays in commissioning in respect of 25 SSs and 15 lines ranging from 6-50 months and 6-12 months respectively. In addition to the above mentioned constructed SSs and lines, in respect of works in progress, two[9] SSs were delayed by two to three years after land acquisitions and 10[10] lines were delayed by the period ranging from 12 to 68 months after scheduled date of completion. Four SSs and two lines[11] planned but not executed in the selected circles were also test checked in audit.

The delay in construction and commissioning of SSs and lines were attributed to delays in obtaining timely permission from agencies like Railways, National Highway Authority, Forest Department and Road & Building Department, RoW problems, poor performance of contractors, shrinking labour strength of contractors and absence of response from good contractors.

Some specific instances of delays and their consequences are discussed below:

***Delayed commissioning of SSs***

**2.1.12** Eight SSs were commissioned from September 2009 to 31 March 2012 and six SSs were commissioned during April 2012 to September 2012 after delays of 4 to 19 months from the date of back charging. These assets were created at a cost of ₹ 43.44 crore from borrowed funds as detailed below:

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9 400 KV Halvad and 220 KV Sarla SSs.

10 66 KV LILO from 220 KV Nanikakhar-Sivlakha line, 220 KV D/C Akrimota Panandro line, 66 KV Santroad-Motaambaliya line, 66 KV Bhalej LILO line, 66 KV Shella LILO, 66 KV Limkhera-Pipero, 66 KV Khanpur-Ditwas line, 66 KV Pavijetpur-Bodeli line, 66 KV Limdi Vastadi Tuva line, and 400 KV Mundra Zerda Line no.2.

11 4 SSs (Sisva, Bhaka, Chandkheda and Asodar) and 2 lines (LILO- Kukma and 132 KV Manjusar-Ode line).

| Sl. No. | Name of the Circle | Name of the SS | Cost (₹ in crore) | Date of back charge | Date of Commercial use | Delay (In Months) |
|---|---|---|---|---|---|---|
| 1 | Surendernagar | 66 KV Narali | 1.23 | 17.03.2008 | 08.09.2009 | 18 |
| 2 | Surendernagar | 66 KV Chandragarh | 1.47 | 18.03.2008 | 01.10.2009 | 19 |
| 3 | Surendernagar | 66 KV Chokdi | 2.40 | 29.12.2010 | 04.05.2012 | 16 |
| 4 | Surendernagar | 66 KV Sunderi Bhavani | 2.39 | 17.02.2011 | 07.08.2012 | 18 |
| 5 | Surendernagar | 66 KV Rajpara | 2.24 | 08.03.2011 | 11.05.2012 | 14 |
| 6 | Nadiad | 66 KV Karamsad | 2.14 | 31.12.2010 | 14.06.2011 | 6 |
| 7 | Nadiad | 66 KV Rakhial | 2.38 | 19.02.2011 | 13.06.2011 | 4 |
| 8 | Nadiad | 66 KV Kathwada | 5.21 | 31.12.2010 | 11.10.2011 | 9 |
| 9 | Nadiad | 66 KV Bidaj | 2.95 | 30.12.2010 | 18.07.2011 | 7 |
| 10 | Nadiad | 66 KV Jinjar | 1.74 | 23.03.2011 | 10.08.2011 | 5 |
| 11 | Nadiad | 66 KV Bilasiya | 3.82 | 31.03.2011 | 12.01.2012 | 9 |
| 12 | Nadiad | 66 KV Mehlav | 2.86 | 07.03.2011 | 01.05.2012 | 14 |
| 13 | Nadiad | 66 KV Shella | 10.24 | 28.02.2011 | 06.06.2012 | 15 |
| 14 | Jambuva | 66 KV Mota Ambaliya | 2.37 | 30.11.2010 | 29.04.2012 | 17 |
| **Total** | | | **43.44** | | | |

**Source:** Data as provided by GETCO

Our analysis revealed that in six SSs (Sl.No.6 to 11), the delay was owing to non availability of lighting mast, non completion of minor works and for the remaining SSs the same were on account of permissions not being received in time from various authorities, RoW problems, poor performance of contractors and shrinking labour strength. These delays could have been avoided by GETCO by proper monitoring and SSs could have been put to commercial use in time for earning anticipated revenue. Thus, these substations constructed at a cost of ₹ 43.44 crore remained idle for considerable periods.

**2.1.13** Similarly, another five SSs constructed at a cost of ₹ 10.44 crore, back charged in the year 2010-11 were not commercially commissioned till 30 September 2012, as given below:

| Sl. No. | Name of Circle | Name of the SS | Cost (₹ in crore) | Date of back charge | Delay (in months) up to 30 September 2012 |
|---|---|---|---|---|---|
| 1 | Jambuva | 66 KV Pipero | 1.23 | 26 .03. 2011 | 18 |
| 2 | Jambuva | 66 KV Vadoth | 1.96 | 30.11. 2010 | 22 |
| 3 | Surendernagar | 66 KV Tuva | 1.90 | 23.02.2011 | 19 |
| 4 | Jambuva | 66 KV Ditwas | 3.07 | 28.02.2011 | 19 |
| 5 | Nadiad | 66 KV Bhalej | 2.28 | 31.01.2011 | 20 |
| | **Total** | | **10.44** | | |

**Source:** Data as provided by GETCO

**Non commercialisation of substations resulted in loss of revenue of ₹ 17.21 crore**

We observed that out of five SSs in respect of each of three SSs (Sl.No.1, 2, and 4) GETCO projected annual revenue of ₹ 3.50 crore as a result of the construction of SSs. There was a delay ranging between 18 and 22 months in commercial commissioning of all the SSs due to non completion of associated lines on account of permissions not being received in time from various authorities (forest clearance in particular), RoW problems, poor performance of contractors and shrinking labour strength leading to idling of funds of ₹ 10.44 crore. This resulted in foregoing of revenue of ₹ 17.21 crore in three SSs.

The Management stated (September 2012) that the award of contracts for laying of associated lines for these SSs were delayed due to poor response received to the tenders invited for the works. Further, even after award of contracts, the works could not be completed due to RoW problems and also for want of forest clearance.

We do not accept the reply as even in the areas free from the problems of RoW and forest clearance, the execution of line works were not progressing as per plan which could have been avoided by proper monitoring. In three cases (Sl No.1, 2 and 4), GETCO could not obtain the clearance even after lapse of more than two years since the submission of proposals to forest department in July 2010. Even though GETCO attributed the delay to RoW problems, it was caused by the delay in deciding the rate of compensation by GETCO as discussed in para **2.1.17** *infra*.

***Non synchronisation of construction activities in SSs***

**2.1.14** The Board approved (November 2008) construction of 400 KV SS at Halvad under Limbdi circle to provide an absolutely essential parallel path of 400 KV line to Saurashtra with scheduled completion in March 2012. As the initial proposal for acquisition of land at Ghanshyampur was made (November 2008) by the construction division without ascertaining the availability of land, alternate land at Halvad had to be acquired (October 2009) after 11 months. The civil works awarded in three different parts (June 2010/January 2011/April 2011) were to be completed by January 2012. However, as of September 2012, incomplete portion in various items of civil and electrical works was 11 to 83 *per cent* and 26 to 80 *per cent* respectively.

On the other hand supply order for transformers and other materials was issued by Corporate Office as early as in November 2010 and materials worth ₹ 34.99 crore received during December 2010 to March 2012 were lying idle till date (October 2012). Further, transformer valuing ₹ 9.36 crore received for this SS was transferred to Varsana SS (January 2012) and there also it was not installed up to August 2012.

Thus, avoidable delay in selection of site, piecemeal award of civil work and non completion of civil works even after scheduled completion date resulted in materials worth ₹ 34.99 crore remaining idle. Had these supplies been synchronised with the construction stage of SS, payment of interest of ₹ 2.07 crore[12] on borrowed funds of ₹ 34.99 crore could have been avoided.

The Management attributed (September 2012) the delay in overall completion to detection of fraud in civil work because of which electrical erection work could not be carried out and resulted in idling of materials. We do not accept the reply as fraud was detected only in November 2011 and even prior to it the progress of work was slow. Further, the reply does not explain delays in land acquisition or award of civil works.

[12] Interest calculated at the rate of 9.1 to 11 *per cent* p.a. based on the annual average borrowing rate.

**2.1.15** In another instance, GETCO planned (February 2011) construction of 220 KV Sarla SS under Surendranagar Circle for which land had already been acquired and paid for in September 2010. The Corporate Office awarded three civil work contracts for compound wall (July 2011), control room (January 2012) and foundations (March 2012) with scheduled date of completion between November 2011 and July 2012. The contract for electrical work was under finalisation in the Corporate Office (March 2012). However, electrical equipments and materials worth ₹ 13.08 crore had been received (October 2010 to February 2012) and kept in stores. This indicated lack of synchronisation among the various construction activities of SS leading to interest loss of ₹ 0.54 crore[13] on borrowed funds of ₹ 13.08 crore.

The Management stated (September 2012) that the work of the SS would be completed by March 2013 and that the materials were procured in advance as a part of strategic planning. We do not accept the reply as receipt of materials was not in tune with the progress of the work.

***Unsuitability of approved land***

**2.1.16** The Corporate Office intimates the respective Circle offices of the various categories of SSs planned for construction during a year. Based on this, the divisions and Circle offices start the process of land identification. The suitability of the land for the SS is first determined at the division level and then approval of Corporate Office is obtained to go ahead with the acquisition of land.

We observed that no specific guidelines existed for determining suitability of land. As a result, three 66 KV SSs (Sisva, Chandkheda and Bhaka) under Nadiad and Jambuva circles planned for construction in 2010-11, were not constructed till date (October 2012) as the land originally identified as suitable were later declared unsuitable as discussed below:

- Circle office Nadiad recommended (Jan 2010) a site for Sisva SS to Corporate Office stating in the proposal itself that the land had possibility of submergence in monsoon. Nevertheless, Corporate Office approved (June 2010) the proposal. As a result, an advance of ₹ 44.10 lakh was paid (June 2010) to the collector for the said land. This amount was still pending adjustment against alternate land, which was yet to be acquired. The Corporate Office, subsequently, rejected (March 2011) the land citing the same reason of submergence, which was earlier not considered by them. Consequently, advance of ₹ 44.10 lakh paid (June 2010) remained blocked for over 24 months and the envisaged saving of ₹ 28 lakh likely to be achieved, due to reduction in losses, as a result of the construction of SS was also not realised (October 2012).
- Due to non availability of suitable land at Khoraj/ Zundal, District Ahmedabad for a 66 KV SS planned for 2010-11, the construction division, Nadiad proposed (March 2010) to the Corporate Office and Collector Office to acquire Government waste land at Chandkheda,

[13] Interest calculated at the rate of 9.1 to 11 *per cent* p.a. based on the annual average borrowing rate.

which was filled up with loose earth/ material. The Circle office, in order to overcome filled up soil strata recommended (May 2010) to adopt pile foundation for civil work, which was not approved (August 2010) by the Corporate Office. Therefore, the division office informed (August 2010) the Collector office about non suitability of land and requested not to proceed in the matter.

Having regard to the non availability of suitable alternate land, the division office again requested (October 2011) Collector office to transfer the same piece of Government waste land for the purpose of the SS. However, the Collector office declined (November 2011) the proposal of division citing the request made earlier (August 2010) for not proceeding in the matter.

We observed that the division office, without ensuring the availability of alternate suitable land, approached (August 2010) collector office not to proceed for the transfer of land at Chandkheda and after 15 months again requested for the same land, which was not accepted by the Collector office. This led to the SS not being constructed (October 2012).

- Land was identified for construction of 66 KV SS at Bhaka and approved by Corporate Office (June 2010). Subsequently in October 2011, the Corporate Office rejected the land acquisition at Bhaka without assigning any reasons. Since, identification of alternate site was in progress, the SS could not be constructed (October 2012). Resultantly, the annual savings of ₹ 0.72 crore anticipated through reduction in line losses and peak power losses were not realised.

The Management stated (September 2012) that in order to ensure right selection of land for substation by Circle office, a check-list system had now been put in place which contained various parameters for land suitability.

***Delay in decision on RoW compensation***

**2.1.17** During the review period, 59 major lines of 400 KV, 220 KV and 132 KV were constructed of which 17 (awarded between January 2008 to May 2010) were delayed for periods ranging from 5 to 17 months. Further 12 major lines (awarded from November 2008 to June 2010), which were in progress at the end of the review period were delayed for periods ranging from 7 to 25 months. The main reason attributed for the delay was the farmers demanding compensation in excess of the norm fixed at ₹ 20,000/ Km for Right of Way (RoW). The compensation norm of ₹ 20,000/ Km was in existence even prior to the restructuring of GEB. It was not revised, based on the changing scenario, until June 2011.

We observed that BoD of GETCO directed as late as in February 2010, to constitute a committee for examining and recommending a reasonable compensation under ROW. However, the committee was not constituted till date (October 2012). In the meantime, GETCO had revised the amount of compensation to ₹ 1,00,000/ Km in June 2011. Further, it increased the amount to ₹ 5,00,000/ Km (February 2012) for 400 KV and 220 KV lines.

However, in both cases the revisions were approved by the BoD without any assessment study by a committee as stated above.

**The delay of 5-17 months in the 17 completed works (₹ 243 crore) and 7-25 months in the 12 works in progress (₹ 99.97 crore) led to blocking of funds of ₹ 342.97 crore for the period of delay**

Since, RoW compensation had been a part of the contractors estimate, they were unable to pay higher amount of compensation. Consequently, the lines got delayed. Even the lines which were completed with delays, the works were carried out with the help of police protection or at the additional cost borne by the contractors. The delay of 5-17 months in the 17 completed works (₹ 243 crore[14]) and 7-25 months in the 12 works in progress (₹ 99.97[15] crore) led to blocking of funds of ₹ 342.97 crore for the period of delay. Notwithstanding the above delays since 2008-09, GETCO delayed action in enhancing compensation. Even the delayed enhancement was not made by constituting a committee, as recommended. As a result, further delays cannot be ruled out.

The Management replied (September 2012) that revisions were carried out (June 2011/ February 2012) based on landowners' demand for higher compensation and actual compensation being paid by various agencies including PGCIL[16]. We do not find justifiable reasons for the delay in fixing reasonable compensation. Further, no reasons were given for non-constitution of committee as decided by BoD earlier.

***Delay in compensatory afforestation by GETCO***

**2.1.18** The 66 KV Saputara SS at Navsari was completed in August 2005 but could not be commercially commissioned as the associated 66 KV Saputara line was not ready pending clearance from forest department. The forest authorities demanded (November 2006) 24 ha of land from GETCO for compensatory afforestation in lieu of land to be given for line work. The Dy. Conservator of Forest approved (October 2007) the government land identified in Barupada village for afforestation purpose. GETCO paid (January/August 2009) ₹ 0.59 crore towards land cost and ₹ 3.47 crore as expense for afforestation. Delay in taking over the land by GETCO led to encroachment. Therefore, forest authorities refused to accept the land for afforestation. Hence, alternate land identified in Beda village was acquired (June 2010) at a cost of ₹ 5.65 crore. The construction of the line was completed and SS was put to commercial use in February 2012. Thus, delay in taking possession of land indentified for compensatory afforestation resulted in additional cost of ₹ 5.06 crore for alternative land.

The Management stated (September 2012) that stringent norms in forest clearance and land compensation for compensatory afforestation caused the delay. We do not accept the reply as delay in taking possession of land was avoidable.

[14] Estimated by GETCO on the basis of 50 *per cent* of material cost.
[15] Estimated by GETCO on the basis of 50 *per cent* of material cost.
[16] Power Grid Corporation of India Limited.

***Fore-closing of Loop in Loop out (LILO) line to Kukma SS***

**2.1.19** The LILO line from 220 KV Nanikhakhar Shivlakha line to Kukma SS (Anjar circle) was approved in January 2007. The work of erection of line was awarded (April 2008) to Quality Electric Company at a cost of ₹ 0.39 crore with a completion period of six months. The tower materials and conductors were to be supplied by GETCO. The work was stopped in November 2008 due to RoW problems. The work on LILO was resumed (May 2009) and GETCO had supplied material for the LILO line worth of ₹ 3.25 crore up to May 2010. The contractor had completed work (including material cost) at a cost of ₹ 3.49 crore upto February 2011.

The RoW problem could not be resolved since compensation amount was considered inadequate by farmers and attempts to carry out the work with police protection failed. Therefore, the work was foreclosed in February 2011. This resulted in blocking up of funds of ₹ 3.25 crore (material cost) and consequential interest loss of ₹ 0.69 crore for the period (May 2010 to March 2012).

The Management stated (September 2012) that idling of materials was genuinely beyond their control. The fact remained that there was idling of materials due to stoppage of work since February 2011 and RoW problems could have been resolved through timely decision on compensation.

***Mismatch between Generation capacity and Transmission facilities***

**2.1.20** National Electricity Policy envisaged augmenting transmission capacity taking into account the planning of new generation capacities, to avoid mismatch between generation capacity and transmission facilities. During the review period, in order to evacuate power from nine[17] generating stations, GETCO planned to erect five 220 KV D/C line, four 400 KV D/C line and one LILO to an existing 220 KV S/C line. Of the 10 lines so planned, eight lines were completed during the review period and no mismatch was noticed between the creation of generation capacity and transmission capacity. The remaining two[18] lines that were still in progress were examined in audit. The audit finding in this regard is discussed below:

***Delay in evacuation of power from Adani Power Limited- Bid No.II***

**2.1.21** GETCO approved (May 2007) construction of two lines viz., 400 KV APL-Zerda line No.I and II for evacuating power from 1320 MW Mundra project of Adani scheduled to be commissioned in February 2012. Work order for APL-Zerda line No.I was issued (during April – July 2011) in three packages at a cost of ₹ 116.50 crore with the scheduled date of completion during March to June 2012. The work order for APL – Zerda line No II was issued in October 2009 at a cost of ₹ 213.56 crore scheduled to be completed by April 2011. But both the lines were still in progress (October 2012).

[17] Utran Stage-II (374 MW), Adani (four units each of 330 MW, two units each of 660 MW), SLPP stage-II (250 MW), Essar (600 MW).

[18] 400 KV D/C APL – Zerda line No.I and II.

We observed that as against the prescribed time limit of 90 days for profile approval of towers in respect of Line No.II, the contractor took an additional period of 454 days, which resulted in subsequent delays.

In the meantime, commissioning of generating units was advanced to July 2011 and the power was evacuated through other existing lines. Had line No.II been completed in time, power from Mundra project could have been evacuated from this line.

The Management stated (September 2012) that delay in construction was not due to tower profile alone, but RoW issues, Wildlife and Forest clearances etc. It was also stated that the delay attributable to agencies with regard to profiles would be considered at the time of levy of liquidated damages.

## Performance of transmission system

**2.1.22** The performance of GETCO mainly depends on efficient maintenance of its EHT transmission network for supply of quality power with minimum interruptions. In the course of operation of SSs and lines, the supply-demand profile within the constituent sub-systems is identified and system improvement schemes are undertaken to reduce line losses and ensure reliability of power by improving voltage profile. These schemes are for augmentation of existing transformer capacity, installation of additional transformers, laying of additional lines and installation of capacitor banks. The performance of GETCO with regard to Operation and Maintenance (O&M) of the system is discussed in the succeeding paragraphs.

### *Transmission capacity*

**2.1.23** GETCO in order to evacuate the power from the Generating Stations and to meet the load growth in different areas of the State constructs lines and SSs at different EHT voltages. The evacuation is normally done at 220 KV SSs. The transmission capacity created vis-à-vis the transmitted capacity (peak demand met) at the end of each year by GETCO during the five years ending March 2012 are as follows:

| **Transmission capacity (in MVA)** | | | | |
|---|---|---|---|---|
| **Year** | **Installed** | **After leaving 30 *per cent* towards margin** | **Peak demand (In MVA)** | **Excess/ shortage** |
| **(1)** | **(2)** | **(3)** | **(4)** | **(5) = (3-4)** |
| **2007-08** | 15,125 | 10,588 | 10,372 | 216 |
| **2008-09** | 16,300 | 11,410 | 10,486 | 924 |
| **2009-10** | 16,900 | 11,830 | 10,981 | 849 |
| **2010-11** | 17,400 | 12,180 | 11,623 | 557 |
| **2011-12** | 18,970 | 13,279 | 12,454 | 825 |

**Source:** Data as provided by GETCO

From the above table it could be observed that the installed overall transmission capacity at 220 KV always remained in excess of peak demand during entire review period from 2007-08 to 2011-12 even after considering 30 *per cent* redundancy. The capacity at the end of 2011-12 was in excess by

825 MVA, which was created at a cost of ₹ 24.26 crore[19]. This cost was passed on to the consumers.

The Management justified (September 2012) the excess capacity stating that at 50 locations, transformers having transformation capacity of 10,900 MVA were loaded more than 70 *per cent* of the installed capacity, at 36 locations transformers having transformation capacity of 8,000 MVA were loaded from 50 to 70 *per cent* and at two locations less than 50 *per cent*. It was further stated that the load diversity to be catered of 5,371 MW to 11,209 MW during 2011-12 also justified the capacity.

We do not accept the reply since 30 *per cent* capacity allowed as a margin on the existing transmission network takes care of all variations/diversity of load.

***Sub-stations***

***Adequacy of Sub-stations***

**2.1.24** Manual on Transmission Planning Criteria (MTPC) stipulates the permissible maximum capacity for different SSs i.e., 320 MVA for 220 KV and 150 MVA for 132 KV SSs. Scrutiny of the maximum capacity levels of 48 SSs in the selected four circles[20] revealed that three numbers of 220 KV SSs at Ranasan, Godhra and Karamsad and three numbers of 132 KV SSs at Narol, Gotri and Nandesari II exceeded the permitted levels.

The Transmission Planning and Security Standards (TPSS) issued by GERC indicated that the size and number of transformers in the SS shall be planned in such a way that in the event of outage of any single transformer, the remaining transformer(s) could still supply 80 *per cent* of the load. On analysis of the transformer loading in 48 SSs (three Nos. of 400 KV, 26 Nos. of 220 KV and 19 Nos. of 132 KV) in selected circles, it was noticed that in 20 SSs (one 400 KV, nine 220 KV and ten 132 KV), the total capacity of remaining transformer(s) was not sufficient to bear 80 *per cent* of the load and deficit was to the extent of 2.77 to 33.78 *per cent*.

The Management stated (September 2012) that a proposal for revision in permissible limit of maximum capacity of 220 KV SSs was put up to GERC and that there were no operational constraints due to availability of alternative source through transfer of loads to other SSs in the interconnected grid.

***Voltage management***

**2.1.25** The licensees using intra-state transmission system should make all possible efforts to ensure that grid voltage always remains within limits. The table below summarises the voltage requirements as per the Indian Electricity Grid Code and variations observed during 2007-12 in the bus voltages of 48 SSs[21] test checked in audit.

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[19] 825 MVA @ ₹ 0.0294 crore *per* MVA (cost of 100 MVA transformer @ ₹ 2.94 crore).
[20] Anjar, Jambuva, Nadiad and Surendranagar.
[21] Three 400 KV SS, 26 numbers of 220 KV SS and 19 numbers of 132 KV SS.

| Class of SSs | Norm | No. of SSs below norm | Actual Range | No. of SSs above norm | Actual Range |
|---|---|---|---|---|---|
| 400 KV | 380-420 KV | 1 | 375-378 | 2 | 422-435 |
| 220 KV | 198-245 KV | 2 | 180-197 | 9 | 246-254 |
| 132 KV | 119-145 KV | 5 | 108 -119 | 6 | 145-149 |

**Source:** Data as provided by GETCO

We observed that the same SS could remain below norm as well as above norm at different points of time. In the instances pointed out above, one 400 KV SS (Chorania) and three 132 KV SS (Undel, Vatva and Sitagarh) remained above and below the norm at different points of time.

The Management replied (September 2012) that measures have been initiated to control variance in bus voltage by installation of reactors to control voltage fluctuations and capacitor banks to improve voltage profile.

***Augmentation of Transmission System***

**2.1.26** During the period under review GETCO augmented existing transformation capacity by 7,865 MVA, out of which augmentation of 2,715 MVA in the selected four circles were reviewed in audit. The findings are discussed below:

***Use of unsuitable conductor***

**2.1.27** GETCO energised (August 2007) two lines (66 KV Khavda Vighakot line and 66 KV Khavda Bediyabet line) for power supply under Border Flood Light Project in Indo-Pak Border in Kutch region at a cost of ₹ 17.33 crore (including ₹ 2.49 crore towards AAAC conductor).

**Use of unsuitable conductor rendered expenditure of ₹ 2.49 crore wasteful.**

We observed that the tender for the turnkey contract was originally invited (February 2005) for ACSR conductor which was later changed to AAAC conductor based on field survey as the area was polluted and saline. Accordingly, AAAC conductors were used in laying the above two lines. However, snapping of conductor occurred frequently since November 2007 in the two lines. During November 2007 to April 2012, the conductors in the two lines snapped on 32 occasions. Hence, the Engineering department of the Corporate Office advised (March 2009) replacement of AAAC conductors by ACSR conductors to overcome the problem. However a period of two years was lost in deciding whether the conductors were to be replaced in selected areas or in totality. In May 2012, a tender was invited for replacing all the AAAC conductors by ACSR conductors at an estimated cost of ₹ 3.22 crore. This indicates that the tenders were properly invited at the initial stage (February 2005) and the subsequent change made in the type of conductor was unwarranted. Thus, as a result of using unsuitable conductor, the expenditure of ₹ 2.49 crore on original conductors became wasteful.

The Management stated (September 2012) that decision on replacement of AAAC conductor with ACSR was taken after detailed study. We do not accept the reply as delay of more than two years was not justifiable. Further, the

incorrect decision regarding selection of the type of conductor at the tender stage resulted in need for replacement.

***Construction of second circuit line without ensuring availability of Feeder bay at Power generator***

**2.1.28** The work of supply of towers and erection of 220 KV single circuit (S/c) Akrimota Panandhro line (Anjar circle) for evacuating power from the Akrimota power plant of Gujarat Mineral Development Corporation Limited (GMDC) was awarded (March 2005) by GETCO at a cost of ₹ 3.86 crore. The conductors, insulators and other material required for the line work were to be supplied by GETCO. The line planned was of single circuit on double circuit tower. The Corporate Office decided (May 2005) to convert this line to a double circuit line to improve reliability of power. Accordingly, the scope of work was increased to include the stringing of the second line also and amended order for ₹ 3.92 crore was issued (October 2005).

**Construction of circuit line without ensuring availability of feeder bay led to blocking up of funds of ₹ 5.53 crore and loss of interest of ₹ 2.86 crore**

We observed that, the second circuit line required the construction of another 220 KV feeder bay at GMDC from where the line would emanate. However, GETCO, without ensuring firm commitment from GMDC for the construction of feeder bay, went ahead with the construction of the second circuit line. Both the circuit lines were completed in August 2006 at a cost of ₹ 14.98 crore, however, only the first circuit line was charged on that date. As GMDC had not constructed the 220 KV feeder bay till date, the second circuit line had not yet been commissioned (October 2012).

This led to blocking of funds of ₹ 5.53 crore being the proportionate cost of the second line and consequential interest loss of ₹ 2.86 crore[22] for the period August 2006 to March 2012.

The Management replied (September 2012) that non utilisation of the second circuit was due to inordinate delay in completion of second feeder bay by GMDC. However, we noticed that other than intimating the requirement of the feeder bay, no firm commitment was obtained from GMDC before taking up the project.

***Delay in Augmentation of 220 KV Shivlakha SS***

**2.1.29** The Samakhyali Division proposed (September and November 2009) augmentation of 220 KV SS at Shivlakha by adding one 100 MVA transformer so as to increase the load capacity to 300 MVA to meet the enhanced load requirement. Accordingly, Corporate Office placed order in October 2010 for purchase of transformer valuing ₹ 3.82 crore and the same was received in Shivlakha 220 KV SS in May 2011.

We observed that the technical sanction for the civil work of bay was conveyed by the circle only on 19 May 2011 i.e., after the receipt of the transformer at site. The transformer which was received in May 2011 was installed only in May 2012. Thus, the transformer was lying idle at site for one year leading to blocking up of funds of ₹ 3.82 crore with consequential loss of interest of ₹ 0.42 crore.

[22] Calculated at the rate of 9.10 to 11 *per cent per annum* based on the annual borrowing rates.

The Management replied (May 2012) that the delay in placing the civil work order occurred due to time taken to prepare drawings for design layout based on soil data. It was also stated that GETCO had now exclusively identified R&M engineer and civil engineer for such augmentation work, so that gap in designing would be bridged and inventory would not be blocked up in future. However, the fact remains that the plan for design should have been made before placement of purchase order for transformer.

***Maintenance***

***Performance of Power Transformers (PT)***

**2.1.30** Power Transformers are important components of electrical energy supply network and it is of special interest to prolong their life while reducing their maintenance expenditure. The table below indicates status of failure of power transformers during the years 2007-08 to 2011-12:

**Performance of Power Transformers**

| Year | No. of transformers at the beginning of the year | No. of transformers failed | No. of transformers failed within guarantee period | No. of transformers failed within normal working life | Expenditure on repair and maintenance (₹ in crore) |
|---|---|---|---|---|---|
| 2007-08 | 1,980 | 42 | 9 | 33 | 2.32 |
| 2008-09 | 2,021 | 30 | 3 | 27 | 2.16 |
| 2009-10 | 2,135 | 40 | 8 | 32 | 2.30 |
| 2010-11 | 2,262 | 24 | 3 | 21 | 6.48 |
| 2011-12 | 2,379 | 31 | 5 | 26 | 3.77 |
| **Total** | **10,777** | **167** | **28** | **139** | **17.03** |

**Source:** Data as provided by GETCO

It may be seen from the table above that the failure of transformers was less than two *per cent* during the performance audit period.

***Delay in overhauling/ repairing of power transformers***

**2.1.31** The Circle office sends proposals to Corporate Office for approval of overhauling of transformers after considering the Insulation Resistance (IR) and tan delta values. We observed that during 2007-08 to 2011-12 there was a delay of six to 45 months in overhauling of 20 transformers (3 circles[23]) from date of approval. There was a delay of 12 to 20 months in two cases and delay of more than 24 months in eight cases on account of non allotment of transformer oil to be procured by Corporate Office. Further, there was delay of more than 18 months in five cases due to non obtaining of outage permission from DISCOMS. Delay of 4 to 17 months was caused in four cases where field offices did not initiate award of work and on the remaining one case, delay of 34 months was caused due to delay in taking the decision on shifting the transformer. This could have been avoided by better monitoring/management.

The Management accepted (September 2012) the audit observations.

[23] Anjar, Nadiad and Surendranagar.

### *Transmission losses*

**2.1.32** While energy is carried from the generating station to the consumers through the Transmission & Distribution (T&D) network, some energy is lost which is termed as T&D loss. Transmission loss is the difference between energy received from the Generating Station/Grid and energy sent to DISCOMs. The details of transmission losses from 2007-08 to 2011-12 are given below:

| Particulars | Unit | Year | | | | |
|---|---|---|---|---|---|---|
| | | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 |
| Power received for transmission | MUs | 58,051 | 57,728 | 68,109 | 65,692 | 64,208 |
| Net power transmitted | MUs | 55,818 | 55,247 | 65,182 | 63,165 | 61,657 |
| Actual Transmission loss | MUs | 2,233 | 2,481 | 2,927 | 2,527 | 2,551 |
| | *Percentage* | 3.85 | 4.30 | 4.30 | 3.85 | 3.97 |
| Target Transmission loss as per the CEA norm | *Percentage* | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Target Transmission loss as per GERC norms | *Percentage* | 4.35 | 4.30 | 4.25 | 4.20 | 4.18 |

**Source:** Data as provided by GETCO

It could be seen from the above table that the transmission losses increased from 3.85 *per cent* in 2007-08 to 4.30 *per cent* in 2008-09 and 2009-10, decreased to 3.85 *per cent* in 2010-11 and again increased to 3.97 *per cent* in 2011-12. However, the transmission loss was within the norms fixed by GERC in all the years except in the year 2009-10 wherein against 4.25 *per cent*, the loss was marginally higher at 4.30 *per cent* and the loss worked out to ₹ 0.57 crore. The reason for higher transmission loss was on account of lower drawl of power by south Gujarat region, and consequent transmission of unused power north wards. Even comparing with CEA norms of four *per cent*, the transmission loss was within the norms except in 2008-09 and 2009-10. The loss worked out to ₹ 6.38 crore (₹ 2.79 crore[24] and ₹ 3.59 crore[25]) for 2008-09 and 2009-10 respectively.

## Grid management

### *Maintenance of Grid and performance of SLDC*

**2.1.33** The Gujarat State Load Despatch Centre (SLDC), a constituent of Western Regional Load Despatch Centre (WRLDC), Mumbai ensures integrated operation of power system in the State. The GoG notified (May 2004) that the SLDC shall be operated by GETCO. The SLDC is assisted by three Area Load Despatch Centres (ALDCs) for data acquisition and transfer to SLDC. The SLDC levies and collects such fees and charges from the generating companies and licensees engaged in intra-state transmission of electricity as specified by the GERC.

[24] Excess loss 172 MU@ ₹ 0.162 per unit.
[25] Excess loss 203 MU ₹ 0.177 per unit.

***Infrastructure for load monitoring***

**2.1.34** Remote Terminal Units/ Sub-station Management Systems (RTUs/ SMSs) are essential for monitoring the efficiency of the transmission system and the loads during emergency in load dispatch centres as per the Grid norms for all SSs. We observed that for all eleven 400 KV SSs, the RTUs were provided (100 *per cent*) for recording real time data for efficient Energy Management System as on 31 March 2012. However, the provisions of RTUs were lesser in respect of other SSs. It was available only in 63 out of 79 Nos. of 220 KV SSs (79.75 *per cent*) and in 6 out of 49 Nos. of 132 KV SSs (12.24 *per cent)*.

The Management accepted (September 2012) the audit findings and stated that the requirement of RTUs would be reviewed.

***Backing Down Instructions***

**2.1.35** When the frequency exceeds the ideal limits i.e. situation where generation is more and drawl is less (at a frequency above 50 Hz) SLDC issues Backing Down Instructions (BDI) to the Generators to reduce the generation for ensuring the integrated Grid operations and for achieving maximum economy and efficiency in the operation of the power system in the State. No backing down instructions were issued by GETCO for 2007-08 to 2009-10 due to deficit in power supply. GETCO issued BDI for 16935.92 MUs for the period 2010-12 which was complied with by the generators.

***Disaster Management***

**2.1.36** Disaster Management (DM) aims at mitigating the impact of a major break down on the system and restoring it in the shortest possible time. As per the best practices, DM should be set up by all power utilities for immediate restoration of transmission system in the event of a major failure. It is carried out by deploying Emergency Restoration System, DG sets, vehicles, fire fighting equipments and skilled and specialised manpower.

***Inadequate facilities for DM***

**2.1.37** Diesel generating (DG) sets and synchroscopes[26] form part of DM facilities at EHT SSs connecting major generating stations. The particulars of installation of DG sets and synchroscopes at SSs are given below:

| Sl. No. | Class of SSs | No. of SSs | Installation of DG sets (No. of SSs) | Installation of synchroscopes (No. of SSs) |
|---|---|---|---|---|
| 1 | 400 KV | 11 | 11 | 11 |
| 2 | 220 KV | 79 | 66 | 22 |
| 3 | 132 KV | 49 | 34 | 2 |

**Source:** Data as provided by GETCO

[26] In an AC electrical power system it is a device that indicates the degree to which two systems generators or power networks) are synchronised with each other.

It would be seen from the above table that DG sets and synchroscopes were not installed in all 220 and 132 KV SSs. While SSs can be taken care by alternate source of power in the absence of DG sets, installation of required synchroscopes are to be ensured for proper synchronisation of power from generators to transmission system. Further, GETCO had not procured any emergency restoration system.

## Energy Accounting and Audit

**2.1.38** Energy accounting and audit is necessary to assess and reduce the transmission losses. The transmission losses are calculated from the Meter Reading Instrument (MRI) readings obtained from Generation to Transmission (GT) and Transmission to Distribution (TD) boundary metering points. As on 31 March 2012, GETCO had 1,123 interface boundary metering points between Generation to Transmission (GT) and 2,216 metering points between Transmission to Distribution (TD). All the GT points and TD points were provided meters.

We observed that the management had not fixed norms of losses for different voltage class of feeders. However, in respect of 10 divisions having 125 feeders[27], management identified existence of high percentage of losses ranging from 1.97 to 3.52 *per cent* in two 400 KV feeders, 2.04 to 82.90 *per cent* in fourteen 220 KV feeders and 3.04 to 5.70 *per cent* in four 132 KV feeders for the period from January 2012 to March 2012. According to the management, transmission losses depend on variable factors like voltage class, line length, type of conductor, quantum and nature of loading, and ambient temperature, on account of which it was considered logical to work out loss in totality for the grid. However, in feeders where higher losses were noticed, technical solutions like installation of capacitor banks had been initiated.

## Financial management

### Financial position

**2.1.39** One of the major objectives of the National Electricity Policy 2005 was ensuring financial turnaround and commercial viability of Power Sector.

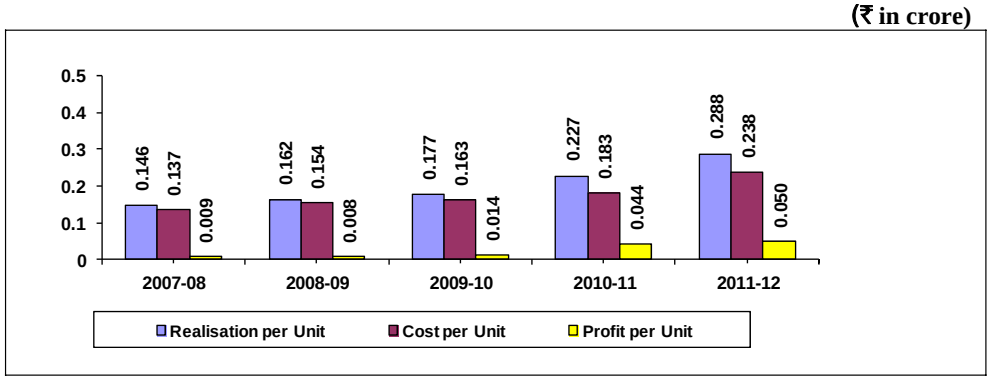
We observed that GETCO had been earning profit during review period. The profit before tax of GETCO increased by 702 *per cent* from ₹ 38.97 crore in 2007-08 to ₹ 312.64 crore in 2011-12. Further, the debt-equity ratio increased from 1.42:1 to 7.02:1 during the period upto 31 March 2012 due to fresh borrowings.

[27] 400 KV feeders – 5; 200 KV feeders – 77 and 132 KV feeders – 43.

***Recovery of cost of operations***

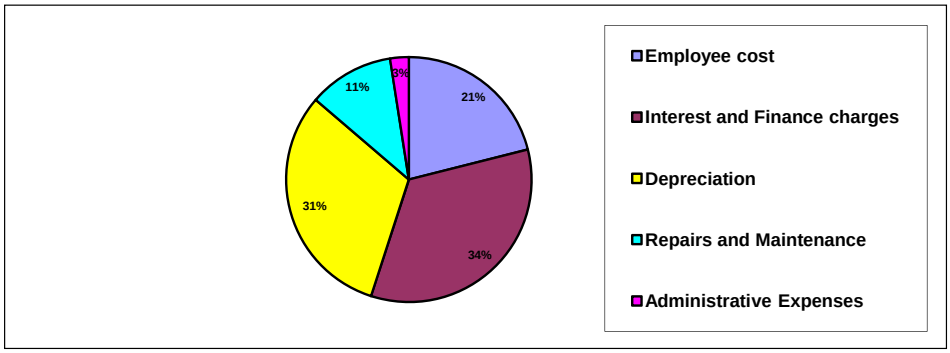
**2.1.40** During the last five years ending 2011-12, the profit per unit increased from ₹ 0.009 (2007-08) to ₹ 0.050 (2011-12) as given in the graph below:

**(₹ in crore)**



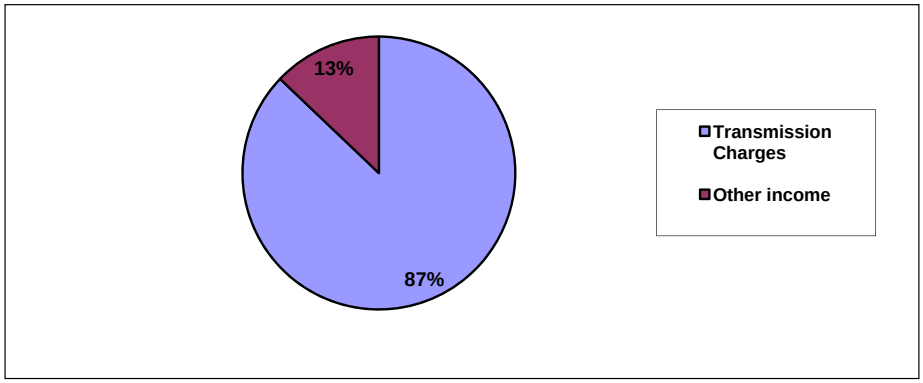

***Elements of Cost***

**2.1.41** The percentage break-up of major elements of costs for 2011-12 is given below:




***Elements of revenue***

**2.1.42** Transmission charges constitute the major element of revenue. The percentage break-up of revenue for 2011-12 is given below in the pie chart**.**



**Audit observations on financial management of GETCO**

***Belated raising of monthly transmission invoices***

**2.1.43** The Transmission Service Agreement entered into (April 2005) between GETCO and GUVNL/DISCOMs provides that monthly bill shall be raised by GETCO on or after 7th day from the end of each month at the tariff fixed by the Gujarat Electricity Regulatory Commission (GERC). It was also provided that any amount other than stated in a monthly bill could be raised through a supplementary bill.

We noticed that monthly transmission invoices were issued after a delay of 11 to 22 days, 11 to 21 days and 7 to 22 days during 2009-10, 2010-11 and 2011-12 respectively and the delay was due to non receipt of pooled losses for western region which were to be intimated by WRPC[28]. As pooled losses were related to DISCOMs who were the major users of transmission network and these losses ranged from 5.01 to 6.76 *per cent*, 3.61 to 6.45 *per cent* and 3.26 to 5.54 *per cent* during 2009-10, 2010-11 and 2011-12 respectively, it was possible that transmission invoices could be raised on the basis of pooled losses of previous month and the bills reconciled at an appropriate time.

**Belated raising of Transmission invoices resulted in interest loss of ₹ 17.42 crore**

We made an effort to work out the differential amount of invoicing considering pooled losses of previous month and actual intimated for current month. The annual differential invoicing was in the range of receivable of ₹ 15.55 lakh to refundable of ₹ 19.04 lakh only. Thus, delay in raising the invoices led to an avoidable interest loss of ₹ 17.42 crore on blocking up of monthly receivables ranging from ₹ 84 crore to ₹ 135 crore during the period from 2009-10 to 2011-12.

The Management stated (September 2012) that GUVNL was not agreeable to the system of provisional billing. We do not accept the reply as supplementary bills were envisaged in TSA and the process would result in financial gain to GETCO.

***Under recovery of cost due to non revision of Pro Rata Charges***

**2.1.44** Pro rata charges were meant to compensate GETCO (licensee) for the expenditure incurred in the system for increasing the transmission capacity. Gujarat Electricity Regulatory Commission (GERC) vide notification no.9 of 2005, allowed GETCO to recover pro rata charges from existing consumers demanding additional load and also from new consumers. Based on the above notification, GETCO issued a detailed circular (March 2007) laying down the formula for calculation of pro rata charges. As the formula was based on the purchase cost of various transmission equipments, these charges were to be periodically revised.

**Non revision of pro rata charges for the period 2008-12 led to under recovery of ₹ 2.81 crore**

GETCO worked out the pro rata charges as ₹ 835/ KVA in March 2007, which was not revised in the later years. During 2008-09 to 2011-12, though GETCO

[28] Western Region Power Committee.

released 5,26,240 KVA load on 66 KV voltage to various consumers but levied pro rata charges of ₹ 835/ KVA for all the years.

For working out the pro rata charges, the average cost of the transmission equipments for a year should be worked out and applied to connections released during subsequent year. Based on cost data provided to us, the pro rata charges per KVA for 2008-09 to 2011-12 were reworked as ₹ 762, ₹ 1,100, ₹ 822 and ₹ 775 for each of the years respectively leading to a net under recovery of ₹ 2.81 crore as tabulated below:

| Year | Actual Applied Rate/KVA | Revised Rate (₹/KVA) | Increase/ (Decrease) | Power Released at 66 KV voltage level during the year (In KVA) | Under/ (Over Recovery) (₹ in lakh) |
|---|---|---|---|---|---|
| 2008-09 | 835 | 762 | (73) | 1,17,670 | (85.90) |
| 2009-10 | 835 | 1,100 | 265 | 1,70,550 | 451.96 |
| 2010-11 | 835 | 822 | (13) | 1,22,900 | (15.98) |
| 2011-12 | 835 | 775 | (60) | 1,15,120 | (69.07) |
| **TOTAL** | | | | **5,26,240** | **281.01** |

**Source:** Data as provided by GETCO

The Management replied (September 2012) that during the review period there was no under recovery as per their working and it was now decided that pro rata charges would be revised once in five years. We do not accept the reply since over/under recovery from different consumers can not be mutually adjusted. Further, the Management's contention that there was no under recovery as per its working was because it applied the pro rata charges calculated on the basis of procurement for a year to the same year's connections released, instead of next year's connections. This is not possible as a particular year's cost will be known only at the end of the year whereas connections are released throughout the year.

***Unwarranted reimbursement of Service Tax***

**2.1.45** GETCO undertakes establishment of new SS, erection of transmission lines, laying of underground cables for transmission purpose either departmentally or through labour contract (wherein procurement is done by GETCO) or by way of EPC (i.e. Erection, Procurement and Commissioning) Contract. For the above work, GETCO reimbursed service tax to Contractors to the extent paid by them. GETCO also undertakes certain works on deposit basis on behalf of other agencies wherein service tax if reimbursed to the contractors is recovered from the depositors. The Government of India clarified (May 2010) that the activities such as shifting of overhead cables/ wires for any reasons due to widening/ renovation of roads, laying of electrical cables under or alongside roads/ railway tracks and between grids/ SSs/ transformers, etc are outside the purview of Service Tax as the same does not result in the emergence of an erected, installed and commissioned plant, machinery, equipment or structure or does not result in installation of an electrical or electronic device (i.e., machine or equipment that uses electricity to perform some other function).

We observed that due to absence of specific guidelines/ clarification by Corporate Office to the field offices till March 2011 regarding non applicability of service tax in the above works, there was an unwarranted

reimbursement of service tax to the extent of ₹ 46.84 lakh in the construction divisions[29] in selected circles for the period May 2010 to March 2011.

The Management replied (September 2012) that in some areas, Service Tax authorities had taken the stand that service tax was applicable on the above works. Further from Finance Act, 2012 these works were not included in the negative list hence it has to be assumed that the service tax is applicable on these items. We do not accept the reply as the fact remained that in the instances pointed out there was reimbursement of Service Tax during the exemption period due to delay in communication from Corporate Office regarding the issue.

***Belated recovery of cost of deposit works***

**2.1.46** A scrutiny of the status of bills for deposit works as on (1 March 2012) carried out by the Anjar Construction Division for HT Consumers showed that there was inordinate delay in passing of final bills of the works. This resulted in delayed recovery of balance amount from consumers in whose favour the works were carried out. We noticed that there was a delay of two to 52 months in passing of final bills after completion of work in 13 out of 105 works completed during audit period. In the above 13 cases, the belated recovery worked out ₹ 77.57 lakh.

Similarly in construction division, Limbdi, on a review of the status of job work deposits and related expenses as of March 2012, we observed that in 12 out of 13 cases, final bills were not yet finalised for the works completed. The delay ranged between one to 14 years. It was further observed that there was delay ranging from one to 12 years in nine cases in submission of final bills by the field office to the Corporate Office, which was the major contributor to the delay. This indicates that there is a lack of follow up action in settling the final bills for jobs completed, which can be avoided by putting a proper system in place.

The Management while accepting (September 2012) the fact attributed belated recovery to procedure involved in finalisation of bills.

***Excess rebate allowed***

**2.1.47** GETCO raises monthly transmission bills on GUVNL for DISCOMs and other beneficiaries on the allocated capacities at the rates specified in the Tariff Orders. The bills were to be paid within 60 days from the date of issue as per Transmission Services Agreement (TSA) of April 2005. As per Terms and Conditions of TSA, two *per cent* rebate shall be allowed for payment of bills within seven days and one *per cent* for payments made within a period of thirty days.

We observed that for the period 2007-08 to 2011-12 GETCO had billed GUVNL/ DISCOMS/ Others for ₹ 5,884.07 crore against which the net realisation was only ₹ 5,276.02 crore. As per details provided by GETCO,

[29] Construction Divisions at Anjar, Jambuva, Limbdi and Nadiad.

normal rebate of ₹ 56.57 crore was allowed under TSA. Further, an additional rebate of ₹ 551.48 crore over and above entitlement had also been allowed by GETCO to GUVNL/ DISCOMS.

The Management stated (September 2012) that GETCO was one of the six utilities under GUVNL and hence it had to rationalise its profit, so that DISCOMs were not burdened. So, based on the mutual understanding with GUVNL and DISCOMs, the extra rebate was allowed. If required, it would review the TSA so as to cover extra rebate allowed to GUVNL and DISCOMs.

We do not accept the reply as the above procedure of using rebate to rationalise the profit is not a transparent procedure and needs to be reviewed.

### *Tariff Fixation*

**2.1.48** The tariff structure for GETCO is approved by GERC based on Annual Revenue Requirements (ARRs) filed by them. The table below gives the due date of filing of ARR *vis-à-vis* actual date of filing and date of approval of tariff petition besides the effective date of the revised tariff.

| Year | Due date of filing | Actual date of filing | Delay in days | Date of approval | Effective date |
|---|---|---|---|---|---|
| 2007-08 | 30.11.06 | 28.12.06 | 28 | 31.03.07 | 01.04.07 |
| 2008-09 | 31.01.08 | 31.07.08 | 182 | 17.01.09 | 01.02.09 |
| 2009-10 | 30.11.08 | 25.08.09 | 268 | 14.12.09 | 14.12.09 |
| 2010-11 | 30.11.09 | 23.12.09 | 23 | 31.03.10 | 01.04.10 |
| 2011-12 | 30.11.10 | 31.12.10 | 31 | 31.03.11 | 01.04.11 |

**Source:** Data as provided by GETCO

**Inconsistent methodology adopted in truing up of ARR for 2008-09 and 2010-11 may result in reduction of ₹ 167.06 crore from ARR 2012-13 instead of a reduction of ₹ 26.81 crore.**

We observed that the tariff petition for 2008-09 being the first Multi Year Tariff (MYT) petition was delayed due to delay in preparing projections for the three years (2008-09 to 2010-11) and the order for 2008-09 was obtained in January 2009. This led to subsequent delay in filing petition for 2009-10 also. Delay in filing the tariff petition for 2008-09 and 2009-10 resulted in GETCO raising supplementary invoice for differential amount as per revised tariff for two and three months respectively. This delay was adjusted by GERC in truing up done for each year based on actual data.

We observed that at the time of truing up the ARR for the year 2009-10 the actual billed revenue of ₹ 1,043.49 crore was adjusted. This enabled GETCO to recover the difference between approved tariff and actual billed amount. However, in 2008-09 and 2010-11 the actual billed revenue of ₹ 936.43 crore and ₹ 1,370.29 crore were not adjusted during truing up the ARRs. This led to non recovery of ₹ 140.25 crore[30] in the tariff order for 2012-13. On being pointed out in audit GETCO approached (August 2012) GERC to adjust the billed amount in respect of truing up of 2008-09, which is pending for final decision by GERC. However, GETCO had not approached so far for adjustments in respect of truing up of 2010-11. This would have resulted in recovery of ₹ 40.65 crore in tariff order for the year 2012-13.

[30] Difference between approved tariff and billed revenue of ₹ 99.60 crore (₹ 1036.03 crore *less* ₹ 936.43 crore) for 2008-09 and ₹ 40.65 crore (₹ 1,410.94 crore *less* ₹ 1,370.29 crore) for 2010-11.

## Material management

**2.1.49** The key functions in material management are laying down inventory control policy, procurement of materials and disposal of obsolete inventory. GETCO had formulated procurement policy for economical procurement and efficient control over inventory.

**2.1.50** The materials required for the day to day operation and maintenance of the system were stored in the R&M stores at Gondal, Haldarwa and Soja. The consumption per month and closing stock in terms of months' consumption are given below:

| Year | Consumption (per annum) (₹ in crore) | Consumption (per month) (₹ in crore) | Net Closing stock (₹ in crore) | Closing stock in terms of months of consumption |
|---|---|---|---|---|
| **2008-09** | 33.58 | 2.80 | 20.95 | 7.5 |
| **2009-10** | 140.78 | 11.73 | 41.84 | 3.6 |
| **2010-11** | 118.60 | 9.88 | 41.51 | 4.2 |
| **2011-12** | 210.56 | 17.55 | 85.71 | 4.9 |

**Source:** Data as provided by GETCO

We observed that though, the closing stock in terms of months' consumption reduced from 7.5 in 2008-09 to from 3.6 in 2009-10 and increased to 4.9 in 2011-12, no norms were fixed for maintaining the stock in terms of months' consumption.

**2.1.51** Besides, the R&M stores stated above, each construction division had its own stores where the material purchased for the works of construction division were kept. A review of the records of the construction stores in the four selected circles and purchases done at Corporate Office revealed the following

### *Idling of 400 KV tower material for ten years*

**2.1.52** A scrutiny of store records for the period 2007-08 to 2011-12 revealed that, 400 KV tower material valuing ₹ 75.57 lakh had been lying at Asoj Construction stores (Jambuva Circle) since 2002. We observed that, Corporate Office, after a lapse of seven years from the receipt of material, directed (December 2009) Haldarwa transmission division to verify and collect the tower material valuing ₹ 27.62 lakh, but the same was yet to be collected by them. Moreover, in respect of material valuing ₹ 9.31 lakh proposed (October 2011) to be declared as scrap by the division, no action was taken by Corporate Office. Material worth ₹ 38.64 lakh was still being sorted out for deciding the future course of action (March 2012). GETCO needs to have effective control over material lying idle over a long period.

### *Idling of equipments*

**2.1.53** We noticed that in Jambuva Circle of GETCO, equipment valuing ₹ 1.43 crore were lying idle in SS without installation and commissioning for a period ranging from 5 to 23 months due to pending civil works, non receipt of associated materials, problems with equipment supplied etc. In Nadiad

Circle 11 KV outdoor breakers worth ₹ 0.26 crore received (July/ August 2010) under R&M plan remained unutilised in SS due to non supply of associated equipments. This resulted in not only blocking up of fund with consequential loss of interest but also the R&M planned for strengthening the system was not achieved.

The Management attributed (September 2012) the delay in commissioning to reasons, such as, delay in approval of drawings, finalisation of civil design, completion of civil works, and sorting out issues with OEM for replacement of material. We do not accept the reply as issues were controllable through proper planning and monitoring.

***Non utilisation of 50 MVA transformers after augmentation***

**2.1.54** Due to increase in the load in 220 KV SSs, GETCO augments the existing 50 MVA transformer with 100 MVA transformer or adding another 50 MVA transformer. We observed that four 50 MVA transformers in the SSs of the selected circles were kept idle till date (September 2012) for a period ranging from eight to 30 months. Action was not taken to utilise these serviceable transformers in the needy SSs (October 2012).

The Management stated (September 2012) that they had analysed the reasons for the delay in augmentation work as being due to non co-ordination of civil and electrical work. Efforts had since been made to identify exclusive engineers for this at Corporate Office**.**

## Monitoring and Control

***Review of the envisaged benefits of T&D schemes***

**2.1.55** While approving the T&D schemes, GETCO envisaged benefits in terms of reduction in line losses, improvement in voltage levels and the load growth to be achieved by the new schemes. We, however, observed that no mechanism/system had been evolved to assess the benefits actually derived on implementation of the schemes by obtaining feedback from the concerned field offices/DISCOMs.

The Management stated (September 2012) that the recommendation of audit would be looked into.

***Internal Controls and Internal Audit***

**2.1.56** GETCO has outsourced the function of Internal Audit to a firm of Chartered Accountants who are regularly conducting the internal audit and report submitted by them is also being discussed in the Audit Committee Meeting. The internal control on the transactions relating to deposit works like collection of deposits, finalisation of bills in time needs to be strengthened as there was huge delay of one year to 14 years in finalisation of bills of deposit works after completion of the work as brought out in paragraph **2.1.46**.

The Management accepted (September 2012) the observations and agreed to ensure early finalisation of deposit work bills in future.

***Audit Committee***

**2.1.57** GETCO constituted an Audit Committee (AC) as required under Section 292A of the Companies Act, 1956. As per the Terms of Reference, AC should meet four times in a year. As per Section 292A (5), the Internal Auditors should also attend all the meetings.

In this connection, we observed the following:

- During 2008-09 and 2009-10 only three such meetings were held, in 2010-11 only two meeting were held.
- The internal auditors did not attend three such meetings.

The Management stated (September 2012) that in the three Audit Committee meetings where the internal auditors had not attended the meeting, there was no internal audit agenda and stated that the requirement was noted for future.

## Acknowledgement

We acknowledge the cooperation and assistance extended by different levels of the Management at various stages of conducting the performance audit.

## Conclusion

- **Even though year wise plan was prepared for addition of sub-stations and lines, there were delays in commercial commissioning of sub-stations and lines due to delay in completion of associated lines, delays in land acquisition, RoW problems and non synchronisation of activities.**
- **The delays in the construction of sub-stations led to blocking of funds and delayed realisation of anticipated revenue.**
- **GETCO had not addressed the issue of RoW compensation problem conclusively and in time leading to substantial delay in completion of lines.**
- **Losses in excess of norms were noticed in certain years.**
- **Avoidable delay was noticed in raising of transmission invoices leading to belated collection of revenue.**
- **Non revision of pro rata charges led to under recovery of cost towards augmentation.**
- **No mechanism/system had been evolved to assess the benefits which were actually derived due to implementation of the schemes after obtaining feedback from the concerned field offices/DISCOMs.**

## Recommendations

**GETCO may**

- **ensure completion and commercial commissioning of SSs as per schedule by proper planning of the activities relating to land**

**acquisition, construction of associated transmission lines of SSs and related civil and electrical works;**

- **further reduction of transmission losses through control of individual feeders;**
- **ensure raising of transmission invoices in time as per transmission services agreement;**
- **periodic revision of pro rata charges;**
- **conduct studies for evaluating the benefits of transmission schemes after they are completed and put in place.**

We reported the matter to the Government (August 2012); we are awaiting their replies (December 2012).

# Gujarat State Land Development Corporation Limited

## 2.2 Soil and Water Conservation Activities

### Executive Summary

***The Agriculture and Cooperation (A&C) department of Government of Gujarat (GoG) deals with agriculture and related issues and the planning and implementation of related Government of India (GoI) and the GoG schemes. The Gujarat State Land Development Corporation limited (Company) is the project implementing agency for the GoG in undertaking soil and water conservation activities in the State under the GoG and the GoI schemes.***

***During the eleventh five year plan period 2007-08 to 2011-12, the Company received ₹1,451.06 crore for soil and water conservation activities from the GoG and had implemented 24 schemes (consisting 39 sub schemes). Besides, the Company also implemented 33 schemes with funding from local bodies/ other agencies.***

***The review covered the soil and water conservation activities undertaken by the Company during the period from 2007-08 to 2011-12.***

***Implementation of schemes***

***Watershed based (WS) State plan schemes***

***The Soil Conservation scheme (Normal Area) (SCNA) is meant for non-tribal areas. However, an amount of ₹6.84 crore was diverted from the scheme to tribal areas in Dahod and Chhota Udepur SCSD.***

***None of the 101 watersheds approved under SCNA during 2007-08 to 2011-12 for Anand and Palanpur SCSD, covering an area of 38,138 ha and involving an expenditure of ₹114.97 crore were saturated/ completed.***

***Anand SCSD incurred expenditure of ₹2.15 crore from the Soil Conservation scheme (Tribal Area) (SCTA) in the non-tribal areas of Dabhoi and Savli talukas.***

***None of the 40 WSs approved under SCTA during 2007-08 to 2011-12 for Anand and Palanpur SCSD covering an area of 12,640 ha of land and involving an estimated expenditure of ₹34.44 crore were saturated/ completed.***

***Infructuous expenditure of ₹7.93 crore was incurred in eight villages of Dharampur SCSD while implementing Integrated Watershed Development Programme for prevention of salinity ingress with inadequate/ incomplete construction of reclamation bund for preventing sea water influx.***

***Scattered area based State plan schemes***

***Four divisions of Ahmedabad, Rajkot, Vadodara and Amreli incurred an additional expenditure of ₹10.08 crore from 2007-08 to 2010-11 due to adoption of higher machinery hiring rates in the scheme for construction of farm pond and sim talavs.***

***The scheme for desilting of village ponds stipulated tendering for hiring of excavator in all 10 districts from 1 April 2006. The Company did not go in for open tendering till March 2010 to minimise the payment of higher rates for hiring of excavators.***

***GoI schemes - Macro Management Agriculture (MMA)***

***Surendranagar SCSD incurred an infructuous expenditure of ₹63.45 lakh on entry point activities in nine villages under National Watershed Development Project for Rain Fed Area without following it up with scheme activities.***

***Dahod SCSD treated 25,908 ha land River Valley Project and Flood Prone Rivers scheme by incurring excess expenditure of ₹8.43 crore.***

***Nine villages of Anand SCSD incurred an excess expenditure of ₹2.01 crore due to wrong categorisation under scheme for Reclamation and Development of Alkali and Acidic soil and thereby entitling the beneficiaries to higher subsidy.***

***GoI schemes - Rashtriya Krishi Vikas Yojana (RKVY)***

***The physical performance under the sub-schemes was not in proportion to the financial performance and excess/ non-execution of works against the targets fixed was also observed. In four out of five and three out of six schemes implemented by Chhota Udepur and Anand SCSDs respectively, the expenditure incurred was less than 50 per cent indicating fixation of targets without any proper assessment.***

***Recovery of Scheme Funds***

***In the four the GoG schemes where loan recovery was involved, total outstanding balance as on 31 March 2012 was ₹97.04 crore of which ₹36.26 crore was more than five years old.***

***Conclusion***

***Targets for WS based schemes were not fixed on WS basis. Concerted efforts were not made to utilise economical means for executing soil and water conservation works. Recovery mechanism was not effectively implemented. The system of evaluation of schemes was absent.***

***Recommendations***

***Targets for WS based schemes should be fixed on WS basis and not on hectare basis. Least cost option should be employed for executing soil and water conservation works. Recovery mechanism should be implemented effectively and schemes should be evaluated through an effective system.***

## Introduction

**2.2.1** Agricultural production depends on the productivity of land. Soil and Water are the vital ingredients for achieving higher productivity. Efficient, effective and economical soil and water management improves soil productivity by preventing soil erosion and conservation of runoff rainwater in the watershed[1] (WS) to improve the ecology of various regions. The soil and water conservation strategy involves coordinated development of rural areas by promoting ancillary development along with development of pasture and afforestation of land that is not under agriculture.

**2.2.2** The reported geographical area of land in Gujarat was 188.25 lakh hectare (ha) (as on 1 April 2007) which included area under agriculture (158.58 lakh ha), forest land (18.78 lakh ha), and area under industrial use (10.89 lakh ha).

Out of total agricultural land, 108.08 lakh ha was dry land where agriculture was mostly rain fed, an area of 38.34 lakh ha was covered by various command area development schemes and 12.16 lakh ha was affected by salinity/ alkalinity requiring special treatment. Out of 108.08 lakh ha, an area of 34.55 lakh ha had already been treated till 1 April 2007, and further an area of 29.48 lakh ha was treated during 2007-08 to 2011-12, thereby leaving an untreated area of 44.05 lakh ha.

## Organisational set up

**2.2.3** The Agriculture and Cooperation (A&C) department of the Government of Gujarat (GoG) deals with agriculture and related areas. The

[1] Watershed is a catchment of rain basin, which falls between a ridgeline and a drainage point through which all the rain water falling in that area drains out. It is categorised as Mega (above 15,000 ha), Mini (3,000-5,000 ha) and Micro (500-600 ha).

department is headed by the Principal Secretary and is concerned with planning, implementation and monitoring of related Government of India (GoI) and the GoG schemes. Gujarat State Land Development Corporation Limited (the Company) is the project implementing agency for undertaking the soil and water conservation activities in the State under the GoI and the GoG schemes.

The Director of Agriculture (DoA) is the Drawing and Disbursing Officer (DDO) for both the GoI and the GoG schemes of soil conservation implemented by the Company. In respect of the GoI schemes, the DoA is also the nodal agency for reporting progress of schemes to the GoI, whereas in the GoG schemes the monitoring is done by the department itself.

**2.2.4** The Company was incorporated on 28 March 1978 to undertake the soil conservation, water harvesting, land reclamation activities and other land development measures in the State. The management of the Company is vested in a Board of Directors (BoD). The Managing Director is the Chief Executive of the Company and is assisted in day-to-day functioning by Executive Director (Administration), Joint Director (Project preparation), Joint Director (Project monitoring), Company Secretary and Deputy Manager (Finance). The Company has seven[2] divisions (six soil conservation (SC) and one mechanical division) at regional level each headed by a Deputy Director. The divisions are supported by 24 Sub-Division (SD) offices at district level, and are headed by Assistant Directors. The SD offices are responsible for implementation of various schemes at field level. Further, the Company has 110 Charge Offices (CO) (103 soil conservation, six mechanical and one Thasara nursery) at taluka level headed by supervisors under the 24 SDs supported by field assistants at village level.

## Soil and water conservation activities under eleventh five-year plan

**2.2.5** As brought out earlier in paragraph 2.2.2, an area of 73.53 lakh ha of land remained to be treated at the beginning of eleventh five-year plan (2007-08 to 2011-12). The GoG allocated ₹ 1,310.34 crore for the various soil and water conservation activities for the eleventh five year plan as projected outlay at 2006-07 prices. The year-wise budget allocation and grant released by the GoG and the GoI for centrally sponsored scheme (CSS) to the Company are detailed below:

[2] Ahmedabad, Amreli, Godhara, Rajkot (Soil conservation), Rajkot (Mechanical), Surat and Vadodara.

**Budget allocation, grant received and expenditure incurred**

*(₹ in crore)*

| Year | GoG | | | GoI | | Others[3] | Total | |
|---|---|---|---|---|---|---|---|---|
| | State schemes including share in MMA scheme of the GoI | | | MMA and RKVY[4] | | | | |
| | Budgeted Grant | Grant received | Exp. incurred | Grant received | Exp. incurred | | Grant received | Exp. incurred |
| 2007-08 | 283.49 | 192.01 | 201.60 | 48.50 | 58.07 | 35.33 | 275.84 | 295.00 |
| 2008-09 | 323.92 | 319.43 | 320.00 | 176.34 | 177.79 | 39.32 | 535.09 | 537.11 |
| 2009-10 | 298.08 | 274.87 | 275.13 | 248.05 | 250.14 | 27.26 | 550.18 | 552.53 |
| 2010-11 | 310.74 | 329.15 | 327.28 | 156.65 | 152.95 | 19.30 | 505.10 | 499.53 |
| 2011-12 | 309.59 | 335.60 | 329.57 | 140.65 | 139.67 | 19.19 | 495.44 | 488.43 |
| **Total** | **1525.82** | **1451.06** | **1453.58** | **770.19** | **778.62** | **140.40** | **2361.65** | **2372.60** |

(**Source**: Data as provided by the Company)

**Against the eleventh plan allocation of ₹ 1,310.34 crore, GoG allocated ₹ 1,525.82 crore in its budget and disbursed ₹ 1,451.06 crore**

We observed from the table that during the plan period (2007-08 to 2011-12) the GoG allocated ₹ 1,525.82 crore in its annual budget against which actual grant received was ₹ 1,451.06 crore and expenditure incurred was ₹ 1,453.58 crore. In respect of the GoI schemes grant of ₹ 770.19 crore was received against which expenditure of ₹ 778.62 crore was incurred.

During the review period a total of 24 schemes (consisting of 39 sub-schemes) were implemented with the GoG / GoI funding and 33 schemes with funding from local bodies and other agencies. The GoG had fixed a target to undertake soil and water conservation activities[5] in 8.31 lakh ha (excluding RKVY for which target was not fixed) of land through the 39[6] sub-schemes (13 sub-schemes of RKVY and 26 sub-schemes of other GoG and GoI plan schemes) implemented through the GoG / GoI funding.

Against the target of 8.31 lakh ha, the Company undertook (2007-08 to 2011-12) soil and water conservation works in 7.05 lakh ha land incurring a total expenditure of ₹ 1,619.52 crore (excluding expenditure on RKVY and others).

## Scope of Audit

**2.2.6** The performance of the Company was last reviewed in the Report of the Comptroller and Auditor General of India for the year ended 31 March 2004 (Commercial)–Government of Gujarat. The Report was examined by the Committee on Public Undertakings (COPU) during June 2008.

The present review covers the planning implementation and monitoring of soil and water conservation schemes by the Company during 2007-08 to 2011-12. For assessing the effectiveness of implementation of the schemes, the records of the Company at its Head Office (HO), Mechanical division (Regional level

[3] This balance represents actual expenditure incurred from grants received that was included in total actual grant received and total actual expenditure incurred.

[4] Rashtriya Krishi Vikas Yojana and Macro Management Agriculture.

[5] Contour bunding, nalla plugging, terracing, land leveling, Kyari making, construction of water harvesting structures, desilting and deepening of ponds, soil reclamation, etc.

[6] 36 related to soil conservation and 3 related to administration.

office) and seven[7] Soil Conservation Sub-Division (SCSD) offices were selected. Out of 39, twenty-six sub schemes of the GoG / GoI were selected for review based on the quantum of expenditure incurred under various schemes during the review period. On the same basis SCSDs were also selected.

## Audit objectives

**2.2.7** The objectives of performance audit were to assess whether:

- the Company implemented all activities involved in a scheme and further carried out watershed based schemes in a holistic and contiguous manner;
- the Company had implemented the schemes economically, efficiently and effectively;
- adequate follow up actions were taken by the Company for the recovery of contributions/ loan component from beneficiaries as per conditions of the schemes;
- structures/ assets created were properly maintained and safeguarded;
- proper mechanism existed for monitoring and controlling the execution of scheme activities; and
- schemes implemented were evaluated with reference to the envisaged objectives.

## Audit criteria

**2.2.8** The audit criteria were adopted from the following sources for assessing the performance of the Company:

- Five-year plan of the GoG, annual plans of the Company, budget documents, schemes guidelines of the GoI /GoG, detailed plan for each scheme and Gujarat Financial Rules.
- Government resolutions/ instructions in formulation of plan, programme for implementation of schemes.
- Schedule of rates and estimates prepared for the works undertaken for development activities.
- Manual relating to soil and water conservation/ land development activities, safeguarding and maintaining the structures/ assets, environmental laws and coastal regulations.
- Staff regulations, Government instructions/ circulars, agenda and minutes of BoDs and Management Information System (MIS) maintained by the Company.

[7] Anand, Chhota Udepur, Dahod, Dharampur, Palanpur, Surndranagar and Vyara.

## Audit methodology

**2.2.9** The audit methodology involved review, scrutiny and analysis of:

- the GoG five-year plans, Company's plan documents, BoD minutes, annual reports, annual administrative reports, detailed plan of schemes, estimates for the works and the targets fixed for field offices etc.;
- correspondences made with the field offices, schemes records at the Company's HO and field offices, records related to environmental and forestry issues, contract documents, measurement books, running bills, payment vouchers, bank accounts etc.;
- records related to appropriation of grants, utilisation certificates, recovery of administrative expenses, bulldozer receipts and cost of works recovered (including contribution and loan components) from the beneficiaries/ other agencies.
- MIS and progress reports received from the field offices of the Company, evaluation reports, etc.

## Audit findings

**2.2.10** We held an 'Entry Conference' on 27 April 2012 with Managing Director and other officials of the Company. The audit findings were communicated to the GoG and the Company on 9 September 2012. We also held the 'Exit conference' on 4 October 2012, which was attended by Principal Secretary, A&C Department and Managing Director of the Company. The Management sent detailed replies to our findings on 10 October 2012 and we have considered the views expressed by them while finalising the performance audit report. Our findings are discussed in the succeeding paragraphs.

## Implementation of schemes

**2.2.11** With a view to boost agricultural productivity in the State through development of soil by adopting appropriate techniques of soil conservation, the schemes formulated by the GoG/ GoI were entrusted to the Company for implementation. The Company makes allocation of funds to its division offices for implementation of the schemes. The division offices in turn allocate the funds to SCSD, which are ultimately allocated to its charge offices. Field assistants at charge offices execute soil conservation works by engaging local labourers.

The schemes of the GoG for soil and water conservation under State Plan can broadly be divided into two categories, Watershed Area based schemes and Scattered Area based schemes. The first category deals with schemes for soil and water conservation works in an identified and approved WS area, whereas, the second category deals with schemes for soil and water conservation activities undertaken for individual beneficiaries. The Company

has implemented seven[8] schemes under the first category of which four (**Sl. No. 1** to **4** of ***Table* below**) were selected for performance audit. Under the second category, the Company implemented 12[9] schemes of which five schemes were selected for review (**Sl. No. 5** to **9** of ***Table* below**). The above-mentioned nine schemes were selected based on highest expenditure incurred from amongst all the schemes implemented during the review period.

There are two major schemes of the GoI for soil and water conservation viz. Macro Management Agriculture (MMA) and Rashtriya Krishi Vikas Yojana (RKVY) (**Sl. No. 10** and **11** of ***Table* below**). Both schemes were reviewed. The MMA scheme was launched in 2000-01 by integrating 27 centrally sponsored schemes. MMA consists of 17 sub schemes of which four[10] were implemented by the Company, all of which were reviewed in audit.

RKVY was introduced in May 2007 by National Development Council to provide additional central assistance to state plans in agriculture and allied sectors over and above the existing centrally sponsored schemes. The components/ activities, which would be eligible for project-based assistance under RKVY, were laid down in the guidelines to the Scheme. The State was free to frame its own scheme for the specified objectives. The Company during the period (2007-08 to 2011-12) had obtained central assistance under RKVY for 13[11] sub-schemes, all of which were selected for review.

**2.2.12** The schemes/ sub-schemes selected for review, grants expended for the selected schemes during 2007-08 to 2011-12 for the Company as a whole and in the selected SCSDs are given in table below:

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[8] 1) **Soil conservation scheme (normal area)**; 2) Soil Conservation work in Schedule Caste cultivators field (Special component plan) (SCSC); 3) **Soil conservation scheme (tribal area)**; 4) **Integrated Watershed Development Programme (IWDP) in tribal area in Gujarat**; 5) Scheme for ravine reclamation; 6) **IWDP for prevention of salinity ingress in coastal areas of Saurashtra**; and 7) Reclamation of saline alkaline soil for bhal area.

[9] 1) **Kyari making for paddy cultivation in tribal areas of Surat, Valsad, Bharuch, Panchmahals, etc**; 2) Kyari making for paddy cultivation in Dangs district, 3) **Construction of farm pond and sim talav**,4) **Construction for water harvesting structures**, 5) **Desilting of Village pond**, 6) Border Area Development Programme, 7) Tribal Area Sub Plan, 8) **Reconstruction of damaged assets due to flood and heavy rain**, 9) Technology development and extension training, 10) Uprooting of Juliflora from Government land, 11) Water conservation project for Porbandar District, and 12) Conversion scheme for integrated agriculture development.

[10] 1) National Watershed Development Project for Rain Fed Area (NWDPRA), 2) Soil conservation in catchments of River Valley Projects and Flood Prone Rivers scheme (RVP & FPR), 3) Reclamation and Development of Alkali and Acidic soil, and 4) Reclamation of Ravine (Innovative).

[11] 1) Checking of salinity ingress in the coastal area, 2) Rain fed Area Development Programme (RADP), 3) Reclamation of problematic saline alkaline soil, 4) Reclamation of degraded Bhal area, 5) Restoration of fertility of water logged area, 6) Reclamation of problematic ravine area, 7) Restoration of fertility of Kharapat, 8) Enhancing water resources in dark zone area, 9) Purchasing heavy earth moving machinery for soil and water conservation; 10) Sustainable agriculture by rain water harvesting (Dahod), 11) Creating farm pond, 12) Construction of check dam (Amreli), 13) RKVY Stream-II.

***(₹in crore)***

| Sl. No. | Name of the scheme | Sub-schemes | Expenditure in | | | |
|---|---|---|---|---|---|---|
| | | | Work | Establi-shment | Total | Selected SCSD |
| **I** | **Government of Gujarat schemes** | | | | | |
| | **(A) Watershed based State Plan schemes** | | | | | |
| 1 | Soil conservation scheme (normal area) | 1 | 70.91 | 47.82[12] | 118.73 | 49.64 |
| 2 | Soil conservation scheme (tribal area) | 1 | 90.10 | 34.36[12] | 124.46 | 60.93 |
| 3 | Integrated Watershed Development Programme (IWDP) in tribal area in Gujarat | 1 | 80.55 | 8.51 | 89.06 | 62.41 |
| 4 | IWDP for prevention of salinity ingress in coastal areas of Saurashtra | 1 | 248.22 | 26.92 | 275.14 | 119.12 |
| | **(B) Scattered area based State Plan schemes** | | | | | |
| 5 | Kyari making for paddy cultivation in tribal areas of Surat, Valsad, Bharuch, Panchmahals, etc | 1 | 68.91 | -- | 68.91 | 46.27 |
| 6 | Construction of farm pond and sim talav | 1 | 334.50 | 31.23 | 365.73 | 144.34 |
| 7 | Construction of water harvesting structure | 1 | 103.28 | 2.30[13] | 105.58 | 50.19 |
| 8 | Desilting of village pond | 1 | 139.36 | 13.42 | 152.78 | 30.34 |
| 9 | Reconstruction of damaged assets due to flood and heavy rain | 1 | 20.52 | -- | 20.52 | 14.15 |
| **II** | **Government of India schemes** | | | | | |
| 10 | Macro Management Agriculture (MMA) (Watershed based) | 4 | 165.74 | 18.74 | 184.48 | 84.01 |
| 11 | Rashtriya Krishi Vikas Yojana (RKVY) (Project based) | 13 | 606.81 | 5.87 | 612.68 | 289.16 |
| | **Total** | **26** | **1,928.90** | **189.17** | **2,118.07** | **950.56** |

The physical targets and achievements in respect of the selected schemes for 2007-08 to 2011-12 are given in ***Annexure* 8.**

## Watershed based State Plan schemes

**2.2.13** As already stated, under the State plan, four out of seven schemes implemented by the Company on WS basis were selected for review. The selected schemes were Soil conservation scheme (normal area), Soil conservation scheme (tribal area), Integrated Watershed Development Programme (IWDP) in tribal area in Gujarat and IWDP for prevention of salinity ingress in coastal areas of Saurashtra.

WSs have already been demarcated for the State of Gujarat by BISAG[14]. The Company on receipt of application from farmers/ panchayat conducts a field survey and prepares detail contour map. Administrative approval for undertaking Soil and Water Conservation activity in the WS is obtained from HO. Thereafter, SCSD prepares a detail survey number wise fair plan estimate of the WS and gets the same approved from Division. The SCSD directs the concerned charge office to undertake work execution in the WS. The work of fair plan estimate is divided into smaller works with a value ranging from ₹ 1,000 to ₹ one lakh. The soil and water conservation works does not require purchase of material and involves primarily earthwork. For execution of

[12] The Company receives separate grant based on the sanctioned strength of employees under the respective scheme.

[13] No administrative charges are admissible under the scheme; however, GoG has separately allotted this amount for 2011-12.

[14] Bhaskaracharya Institute for Space Application and Geo-Informatics.

earthwork, the charge office hires labourers/machinery locally at the prevailing Schedule of Rates (SoR) of the Company without inviting tenders for works upto value of ₹ one lakh. The charge office after measuring the individual works in the measurement book (MB) prepares and submits voucher to SCSD for release of funds and thereafter on receipt of funds from SCSD makes payment to labourers/ machinery owners.

Our observations related to implementation of the four WS based schemes are discussed in the succeeding paragraphs.

**Soil conservation scheme (normal area)**

**2.2.14** The Soil Conservation Scheme (Normal Area) (SCNA) was transferred from the GoG to the Company in July 1982. Under the scheme, activities of soil and water conservation such as, land levelling, terracing of land, land shaping, contour bunding, nala plugging along with survey and maintenance thereof in non-tribal areas are undertaken on WS basis. Based on the application/ demand received from farmers, the Company officials conduct a field study and after obtaining consent from at least 50 *per cent* farmers of the concerned WS put up a proposal for approval of the concerned WS. The funds for the SCNA are given initially by the GoG as a grant to the full extent but only 50 *per cent* of the amount is the subsidy share of the GoG and remaining 50 *per cent* is recovered from the beneficiaries (20 *per cent* as advance contribution and 30 *per cent* as loan in six bi-monthly instalments). The beneficiaries are responsible for maintenance of the structures constructed under the scheme. During 2007-08 to 2011-12, the Company received grants of ₹ 72.02 crore for SCNA for treatment of 47,066 ha of land. In addition, a separate grant of ₹ 46.82 crore for administrative charges was also received. The Company executed soil and water conservation activities in 38,388 ha at the cost of ₹ 70.91 crore during the review period, out of which an expenditure of ₹ 49.64 crore was incurred in the selected SCSDs. We observed following deficiencies in implementation of scheme in the selected SCSDs.

***Diversion of non-tribal scheme grants to tribal areas***

**Grant of ₹ 1.60 crore and ₹ 5.24 crore for non -tribal areas was respectively diverted by Dahod and Chhota Udepur SCSD to tribal areas**

**2.2.15** Dahod is a fully tribal district, nevertheless the Company's HO allocated ₹ 1.60 crore under SCNA scheme during 2007-08 to 2011-12 to Dahod SCSD, which was fully utilised in its tribal district. Similarly, the Chhota Udepur SCSD was allocated ₹ 22.96 crore under SCNA scheme during 2007-08 to 2011-12. Out of this allocation, the SCSD utilised ₹ 5.24 crore in its tribal talukas of Chhota Udepur, Kavant and Jetpur Pavi. This resulted in a diversion of ₹ 6.84 crore from non-tribal scheme to tribal areas.

The Management replied (October 2012) that the Company had utilised the fund of SCNA scheme for non-tribal farmers residing in tribal area, therefore, there was no diversion of the scheme fund. We do not accept the reply as the SCNA scheme is applicable to non-tribal areas and not meant for specific category of beneficiaries. Hence, works under the Scheme were to be executed for beneficiaries residing in non-tribal areas.

***Implementation of SCNA on scattered area basis***

**Surendranagar SCSD incurred ₹ 1.61 crore under SCNA without approval of watershed**

**2.2.16** As per procedure, SCSD gets the WS approval from Head Office (HO) and then submits a fair plan estimate for the entire village covering the approved WS to the division office before placement of work orders. We observed in audit that in Surendranagar SCSD the above procedure was not followed. Estimates were prepared on a 'scattered area' basis for different survey number, instead of entire village for the approved WSs. The Surendranagar SCSD incurred (2007-08 to 2011-12) a total expenditure of ₹ 1.61 crore under SCNA, on a scattered area basis, defeating the purpose of the scheme as it was not undertaken on a WS basis.

The Management replied (October 2012) that the works were carried out in demarcated WSs only. We do not accept the reply as works were not carried out on WS basis.

***Non-saturation*[15] *of watersheds***

**2.2.17** A review of the SCNA in Palanpur and Anand SCSD revealed that, during 2007-08 to 2011-12, a total of 101 WSs (67 in Palanpur and 34 in Anand) had been approved covering a total of 38,138 ha land (16,760 ha in Palanpur and 21,378 ha in Anand). An expenditure of ₹ 114.97 crore (₹ 44.62 crore in Palanpur and ₹ 70.35 crore in Anand) had been approved for the 101 WSs. We observed that none of the 101 WSs was saturated during the review period. Work done was only in 11,543 ha land (4,268 ha in Palanpur and 7,275 ha in Anand) and expenditure incurred was ₹ 23.17 crore (₹ 8.30 crore in Palanpur and ₹ 14.87 crore in Anand). Thus, work done in area of land was only 30.27 *per cent.*

We observed that one of the reasons for non-saturation/ non-completion of WSs in the GoG Scheme was that unlike in the GoI Scheme, targets were not fixed on WS basis laying down the time limit for completion. Instead, targets were fixed on hectare basis without any specific time frame for completion of a WS or the components to be covered therein.

The Management accepted (October 2012) the facts and agreed to fix the targets of the GoG schemes on WS basis as was being done in the GoI WS schemes.

**Soil conservation scheme (tribal area)**

**2.2.18** Under the Soil Conservation Scheme (Tribal Area) (SCTA) scheme, similar activities as in SCNA are carried out in the tribal areas on WS basis. The scheme was funded initially through grants from the GoG out of which 75 *per cent* was treated as Government subsidy and 25 *per cent* was recovered as loan from beneficiaries in eight annual instalments with four *per cent* interest after moratorium period of two years. The Company received grants of ₹ 90.10 crore for SCTA for treatment of 48,268 ha of land during 2007-08 to

[15] Saturation of watershed denotes completion of all envisaged activities of WSs.

2011-12. In addition, a separate grant of ₹ 34.36 crore for administrative charges was also received. The Company executed soil and water conservation activities under SCTA in 51,582 ha at the cost of ₹ 90.10 crore out of which ₹ 60.93 crore was incurred in selected SCSDs. We observed the following deficiencies in the implementation of the scheme.

***Diversion of SCTA grant to non tribal area***

**Anand SCSD diverted the tribal grant of ₹ 2.15 crore to non tribal areas**

**2.2.19** We observed in Anand SCSD that an amount of ₹ 2.15 crore was incurred in the talukas of Dabhoi and Savli, which were not declared tribal talukas, leading to diversion of SCTA grant to non-tribal areas.

The Management replied (October 2012) that the Company had utilised the fund of SCTA Scheme for tribal farmers residing in non-tribal area, therefore, there was no diversion of the scheme fund. We do not accept the reply as the SCTA scheme is applicable to tribal areas and not meant for specific category of beneficiaries.

***Non saturation of watersheds***

**Even after incurring an expenditure of ₹ 5.97 crore in 40 watersheds for treatment of 3,261 ha out of 12,640 ha none of the watersheds were saturated**

**2.2.20** The Palanpur and Anand SCSD planned to execute 40 WSs (31 WSs in Palanpur and 9 WSs in Anand) covering 12,640 ha of land (4,235 ha in Palanpur and 8,405 ha in Anand) at an estimated expenditure of ₹ 34.44 crore (₹ 10.68 crore in Palanpur and ₹ 23.76 crore in Anand) during review period. We observed that the land treated was only 3,261 ha (2,040 ha in Palanpur and 1,221 ha in Anand) with an expenditure of ₹ 5.97 crore (₹ 3.82 crore in Palanpur and ₹ 2.15 crore in Anand). The achievement in terms of hectare was only 25.80 *per cent* of the planned coverage. Ten WSs remained incomplete for more than 10 years. In 29 WSs expenditure of ₹ 3.23 crore was incurred only during one year and the works were subsequently abandoned. Here also targets were fixed on hectare basis rather than on WS basis as discussed in para **2.2.17** *supra***.**

The Management accepted (October 2012) the facts and agreed to fix the targets on WS basis in accordance with the GoI WS schemes.

***Common deficiencies in SCNA and SCTA***

**2.2.21** The GoG envisaged various soil conservation activities under SCNA and SCTA schemes implemented on WS basis. The soil and water conservation activities such as vegetative measures like plantation of trees and pasture development, staggered trenching, contour and graded bunding, land terracing etc., are necessary to restore the health of the catchment area by reducing the volume and velocity of surface runoff. We observed that no such activities, except land terracing, were undertaken in the WSs developed in SCNA and SCTA schemes in the selected SCSDs.

The Management replied (October 2012) that activities technically suitable at site and beneficial to farmers were carried out. We do not accept the reply as the WS approach is based on comprehensive and holistic development of selected WS, which will be effective if all soil and water conservation activities envisaged under the scheme are undertaken.

**2.2.22** SCNA and SCTA schemes involve a loan component to be recovered from beneficiaries as discussed in paragraph **2.2.14** and **2.2.18** *supra*. We observed that written consent for the loan component was not taken from all the beneficiaries prior to approval of WS. Consequently, when beneficiaries were approached for loan consent at the time of implementation of the schemes, they refused many times for the loan component, resulting in WS remaining unsaturated.

The Management replied (October 2012) that farmers do not agree to implement the Scheme due to loan component therein. We do not find the reply specific to our observation regarding obtaining written consent of the beneficiaries before approval of WS.

**2.2.23** In SCNA and SCTA, the Company pays an amount of nine paise *per* rupee as pick-axes sharpening charges if these schemes are carried out on labour work basis. During 2007-08 to 2010-11, Dahod and Chhota Udepur SCSD paid an amount of ₹ 1.38 crore under the two schemes towards pick-axes sharpening charges but did not consider the same while calculating subsidy and loan component. Similarly, an amount of ₹ 0.24 crore was not considered as recoverable in the scheme of Kyari making for cultivation in tribal areas of Surat, Valsad, Bharuch, Panchmahal, etc, as discussed in para **2.2.30** *infra.* Consequently, the Company had to absorb the expenditure of ₹ 1.62 crore.

The Management replied (October 2012) that the above charges are considered as non-recoverable since inception of the soil and water conservation scheme in the State as there were no clear directions from the GoG in this regard. We find the reply incorrect as the Company is considering these charges as recoverable charges in other GoG aided soil and water conservation schemes.

**2.2.24** The SCNA had the GoG subsidy component of 50 *per cent* and SCTA had the GoG subsidy component of 75 *per cent*. While deciding the subsidy component no differentiation in rate of subsidy was made in the scheme for large, medium and small farmers.

The Management replied (October 2012) that there was no clarification about subsidy component for large, medium, and small farmers and that a proposal in this regard would be submitted to the GoG.

**Integrated watershed development programme in tribal area in Gujarat**

**2.2.25** The Integrated Watershed Development Programme (IWDP) in tribal area of Gujarat was introduced (April 2005) in the identified[16] areas of the State. The above scheme was implemented to increase agricultural production

[16] Garbada and Dhanpur taluka's of Dahod district; Naswadi and Kwant taluka's of Vadodara district; Sagabara and Dediyapada taluka's of Narmada district; and Kaparada taluka of Valsad district.

in these areas and thereby provide local employment to the tribal population in the identified areas. The scheme included activities of soil and moisture conservation, water harvesting, adoption of suitable cropping pattern, and value addition products. The major component of expenditure was earthwork for which payment was made to labourers on piece rate basis i.e. per cmt. No equipment can be deployed under the scheme. The soil and water conservation activities were to be undertaken on the basis of 85 *per cent* Government subsidy in private land, 95 *per cent* Government subsidy in panchayat land and 100 *per cent* Government subsidy in Government land. During 2007-08 to 2011-12, the Company received grants of ₹ 88.80 crore for IWDP for treatment of 34,307 ha of land. Under the scheme 10 *per cent* of the expenditure of ₹ 8.51 crore was allowed as administrative expenditure. The Company treated 36,024 ha of land at the cost of ₹ 80.55 crore. Out of this, expenditure of ₹ 62.41 crore was incurred in selected SCSDs. No records were maintained by the SCSD to identify the increase in agricultural production as a result of scheme implementation. We observed following deficiency in implementation of scheme in the selected SCSDs during 2007-08 to 2011-12.

***Non achievement of envisaged targets***

**2.2.26** The GoG directed (January 2011) to double the targets in the IWDP tribal area scheme by execution of equal amount of work under the MNREGA[17] scheme. Reiterating the above directions, the Company issued a circular (April 2011) to the SCSDs that amount should be expended from the scheme only if equal amount of work was executed under MNREGA scheme. However, during 2011-12, the Company spent an amount of ₹ 19.97 crore from the GoG funds under the scheme but only ₹ 0.38 crore (as per the MIS of the Company) under MNREGA scheme. This resulted in violation of the GoG /Company direction and non-achievement of consequential benefit of double hectare coverage.

**GoG guidelines were violated by not incurring ₹ 19.59 crore from MNREGA funds**

The Management replied (October 2012) that lesser utilisation under MNREGA scheme was due to non-availability of MNREGA job card holders. We do not accept the reply because no records were available indicating the reporting to the GoG / HO of the Company of the fact that MNREGA job card holders were not available. Further, prior to incurring the expenditure, the SCSDs concerned should have informed this fact to HO and the Company should have intimated the same to the GoG.

**IWDP for prevention of salinity ingress**

**2.2.27** The State has longest coastal line in the country. As per study of Khar Land Development Board, 65,615 ha land suffers from coastal salinity. The scattered and inadequate rainfall leads to drawl of ground water for irrigation, domestic and drinking purpose resulting in fall in water table. The tidal flow repeatedly submerges the soil and infuses them with soluble salt thereby rendering the soils and sub soils water saline. The various treatments to be provided under the IWDP for prevention of salinity ingress scheme were to be

[17] Mahatma Gandhi National Rural Employment Guarantee Act, 2005.

carried out at an estimated cost of ₹ 20,000 *per* ha inclusive of administrative expenditure entitlement to the Company at 10 *per cent* of the amount spent. The expenditure on treatment incurred under the scheme was 100 *per cent* subsidised and was to be borne by the GoG. The Company received grants of ₹ 275.48 crore under the scheme during 2007-08 to 2011-12 for treatment of 1,36,239 ha of land, which included ₹ 26.92 crore for administration expenses. The Company treated 1,06,288 ha at the cost of ₹ 248.22 crore. An amount of ₹ 119.12 crore was incurred in four selected SCSDs.

The salinity ingress prevention activity involves:

- construction of reclamation bund for prevention of salinity ingress;
- construction of recharge structure like pond, percolation tank, etc; and
- field bunding, deep ploughing, etc., for soil management.

***Infructuous expenditure on incomplete works***

**2.2.28** In eight villages of Dharampur SCSD, for prevention of salinity ingress during 2007-08 to 2011-12, the SCSD proposed to construct 56,150 running meter (rmt) of reclamation bund at a cost of ₹ 4.75 crore, 863 recharge structures at a cost of ₹ 9.97 crore and undertake soil conservation works of 7,340 ha at a cost of ₹ 6.31 crore. In order to ensure synchronisation of activities involved in the scheme, it is necessary that conservation works and recharge structures be carried out after construction of reclamation bund so that further salinity ingress will be prevented.

**Improper synchronisation of activities for salinity ingress rendered the expenditure of ₹ 7.93 crore as infructuous**

We observed that reclamation bund of 12,102 rmt only was completed in four[18] villages by incurring an expenditure of ₹ 1.20 crore and in remaining four[19] villages reclamation bund was not constructed. However, the SCSD had already incurred ₹ 3.95 crore on 374 recharge structures and ₹ 2.78 crore for soil conservation works in 3,009 ha (2007-08 to 2010-11). No expenditure had been incurred on the above scheme in six villages after 2010-11 and the work was incomplete in all the eight villages thus rendering the expenditure of ₹ 7.93 crore as infructuous. This indicated ineffective planning and implementation.

The Management replied (October 2012) that under the scheme, treatment was given as per farmers' demand, project approval, and availability of funds. Further, the activities like construction of reclamation bund were not undertaken as the same was not required as per site condition. We do not accept the reply as the requirement for construction of reclamation bund was assessed and included in the estimates prepared by the SCSDs after careful local site survey.

[18] Bhagdavada, Maroli, Magob Bhata and Mendhar.
[19] Binvada, Dehri, Kalamtha and Morli bhatha.

## Scattered area based State Plan schemes

**2.2.29** The Company implemented twelve schemes on scattered area[20] basis, of which five schemes as given in para **2.2.12** *supra* were selected for review. The scheme selected under soil conservation activities was Kyari making for paddy cultivation in Tribal Areas of Surat, Valsad, Bharuch, Panchmahal etc (KYTA). The scheme selected under water conservation were construction of farm pond and sim talav, construction of water harvesting structures, desilting of village pond, and reconstruction of damaged assets due to flood and heavy rains. The deficiencies in implementation of these schemes are discussed below:

## Kyari making for paddy cultivation in tribal Areas

**2.2.30** With the objective of enabling the farmers to cultivate remunerative crops and increase their earnings, the GoG introduced the KYTA scheme. Under this scheme, Kyaris[21] were to be prepared for paddy cultivation outside the demarcated WS in the fields of farmers belonging to the scheduled tribes in tribal districts of Surat, Valsad, Bharuch, Panchmahal *etc*. The monetary limit for assistance was ₹ 12,000 *per* ha *per* tribal cultivator. The rate of subsidy under this scheme was ₹ 9,000 or 75 *per cent* of the actual cost of work, whichever was less. Of the remaining 25 *per cent* amount 10 *per cent* amount was to be beneficiary contribution either in the form of cash or labour and balance 15 *per cent* was to be recovered with four *per cent* interest in eight equal annual instalments from the cultivators after two years moratorium period. Earthwork being the sole component in kyari can be executed by labour/ machinery. Upon receipt of application from farmers, the charge office under SCSD surveys their land, prepares a fair plan estimate, gets approval from SCSD, obtains work order, collects labour/ cash contribution in advance and without inviting tenders, hires labourers/ machinery for execution at prevailing SoR. On work completion charge office measures work done in MB, prepares and submits vouchers to SCSD for release of funds and consequent payment to labourers/ owners of the machinery. The Company received grants of ₹ 68.92 crore for soil conservation scheme for treatment of 44,212 ha of land. Under the scheme no administrative expenditure was allowed. The Company treated 56,694 ha at the cost of ₹ 68.91 crore. An expenditure of ₹ 46.27 crore was incurred under the scheme in the selected SCSDs. The deficiencies noticed in execution of the scheme are illustrated below.

### *Overlapping with WS scheme*

**2.2.31** The SCSDs did not have any system to ensure that the areas identified for executing Kyari making works under scattered area schemes were not

[20] Under the scattered area based scheme the soil and water conservation work in the land of farmer/ beneficiary is undertaken on receipt of application/ identification of the area where an activity is required to be executed. Unlike watershed based schemes the activity can be undertaken either in a watershed or outside a demarcated and approved watershed.

[21] Kyari is a piece of land in hilly terrain with slope less than three *per cent* levelled for paddy cultivation.

already covered under any of the demarcated areas of WS based schemes. We observed that the areas of Vankal and Manadan villages under Vyara SCSD were identified and undertaken for Kyari making works under KYTA (scattered basis) even though the areas were already demarcated and approved for SCTA scheme (WS basis).

The Management replied (October 2012) that some farmers were deprived of the scheme benefit due to gentle slope of their farms, therefore, on their demand the work of Kyari making was carried out in demarcated and approved WS area of these villages thus, there was no overlapping. We find the reply not specific about absence of system to avoid overlapping with WS Scheme. Further the work executed in both the villages was in violation of the GoG directives for the scheme.

***Violation of norms fixed for the scheme***

**Company incurred excess expenditure of ₹ 24.03 lakh by treating additional 268.92 ha for 355 beneficiaries**

**2.2.32** The scheme laid down a coverage norm of ₹ 12,000 *per* ha *per* tribal cultivator. We observed in Dharampur SCSD that it had treated more than one hectare land in case of 355 tribal cultivators in violation of scheme guidelines. This resulted in excess expenditure of ₹ 24.03 lakh by treating additional 268.92 ha land during 2009-10 and 2010-11.

The Management replied (October 2012) that on an average expenditure incurred per hectare was within the cost norms of ₹ 12,000 *per* hectare. We do not accept the reply as it does not elaborate treatment of area over and above one hectare *per* tribal cultivator.

**Construction of farm pond and sim talav**

**2.2.33** The GoG introduced (March 2007) the construction of farm ponds and sim talavs scheme with the dual objective of recharging the underground water table and providing supplementary irrigation. Under this scheme for construction of big size farm ponds and sim talavs 90 *per cent* subsidy was given by the GoG and 10 *per cent* contribution either in cash or by way of labour contribution was to be recovered from beneficiaries. The scheme envisages construction of big size farm ponds in privately owned land while village ponds and sim talavs were to be constructed in Government/ Panchayat land. The scheme also provides for appropriation of 10 *per cent* expenditure towards administrative charges. Earthwork being the major component in construction of pond, can be executed by labour/ machinery. Upon receipt of application from farmers, the charge office under SCSD surveys their land, prepares a fair plan estimate, gets approval from SCSD, obtains work order, collects labour/ cash contribution in advance and without inviting tenders, hires labourers/ machinery for execution at prevailing SoR. On work completion charge office measures work done in MB, prepares and submits vouchers to SCSD for release of funds and consequent payment to labourers/ owners of the machinery. During 2007-08 to 2011-12, the Company received a total grant of ₹ 365.63 crore for construction of 23,748 farm ponds, 1,175 Village ponds and 6,528 sim talavs. The Company constructed 26,564 farm ponds, 1,302 Village ponds and 4,875 sim talavs at the total cost

of ₹ 334.50 crore. Out of this an expenditure of ₹ 144.34 crore was incurred in selected SCSDs. The scheme related irregularities are given below:

***Violation of guidelines***

**2.2.34** The scheme guidelines required:

- formation of committee to decide priority of pond construction;
- payment to labourers in presence of beneficiary; and
- evaluation of impact of farm pond construction by collecting productivity data before and after pond construction.

However, selected SCSDs did not follow these guidelines as observed by us. The Management in their reply (October 2012) agreed to take necessary action in future.

***Payment of varying machinery hiring rates in different schemes***

**2.2.35** The GoG while introducing (March 2007) the scheme stipulated the rate of ₹ 24.25 *per* cubic meter (cmt) for hiring of machinery for construction of ponds. The Schedule of Rates (SoR) of the Company approved (March 2008) by the GoG for hiring machinery for construction of pond was ₹ 22 *per* cmt till April 2011. We observed that the Company paid ₹ 24.25 *per* cmt under this scheme and the rate of ₹ 22 *per* cmt under RKVY for construction of pond till March 2011. The above discrepancy was removed by stipulating the uniform rate of ₹ 30 *per* cmt during approval (April 2011) of latest SoR by the GoG. The Company, being aware of its own lower rate, should have adopted the SoR rate of ₹ 22 *per* cmt in concurrence with the GoG for this scheme also. Based on the details provided by the Company in respect of Ahmedabad, Amreli, Rajkot and Vadodara Divisions for the period 2007-08 to 2010-11, the extra expenditure worked out to ₹ 10.08 crore[22] as a result of adopting higher GR rate.

**Four divisions incurred ₹ 10.08 crore by adopting higher machinery rate as per GR against the approved SoR**

The Management replied (October 2012) that the works under the scheme were executed as per the directions issued (February 2007) by the GoG. We do not accept the reply as the Company should have brought the disparity in rates to the notice of the GoG and paid hire charges in accordance with the principles of financial propriety to ensure uniformity in different schemes implemented by the Company.

**Construction of water harvesting structure**

**2.2.36** The GoG had issued (5 August 1997) guidelines for the implementation of the scheme for construction of Water Harvesting Structures (WHS). The Company constructs two types of WHS viz. Earthen and Masonry WHS. Earthwork and masonry work are the major component in earthern and masonary WHS respectively, which can be executed by,

[22] Expenditure of ₹ 108.57 crore ÷ Machine rate as per GR i.e. ₹ 24.25 = 4.48 crore cmt × difference of GR and SoR rate (₹ 22 *per* cmt) i.e. ₹ 2.25 *per* cmt = ₹ 10.08 crore.

labourers/ masons. The charge office under SCSD surveys the site for technical feasibility, prepares a fair plan estimate, gets approval from SCSD, obtains work order, collects labour/ cash contribution in advance and without inviting tenders, hires labourers/ masons for execution at prevailing SoR. On work completion charge office measures work done in MB, prepares and submits vouchers to SCSD for release of funds and consequent payment to labourers/ mason. Besides, the Company also issued instructions (November 2001) for selection of site for WHSs. During 2007-08 to 2011-12, the Company received ₹ 105.66 crore for the scheme (which included ₹ 2.30 crore for administration expenses) for construction of 11,181 WHS. The Company constructed 12,950 WHS at a cost of ₹ 103.28 crore, which included ₹ 50.19 crore incurred in selected SCSDs. The scheme guidelines related irregularities as noticed in audit are given below:

***Violation of guidelines***

**2.2.37** The scheme guidelines stipulated that:

- the scheme was to be implemented in low rain fall areas only;
- socio economic and agriculture survey of the WHS catchment was to be conducted and the reports were to be submitted along with maps and design of WHS before starting the work;
- agricultural production records, water table details of wells surrounding the WHS (Survey number wise) both before and after the construction of WHS were to be maintained year wise;
- an Association of the beneficiaries of WHS was to be formed and a corpus fund for maintenance of the WHS by contributing 20 *per cent* of the cost of WHS was also to be created.

We observed that the above guidelines were violated as given below:

- An expenditure of ₹ 10.46 crore in Vyara SCSD and ₹ 10.23 crore in Dharampur SCSD was incurred despite these being high rainfall areas;
- No socio economic and agriculture survey was conducted by any of the selected SCSDs;
- No data as stipulated in the guidelines was maintained;
- No corpus fund was created in selected SCSDs.

The Management replied (October 2012) that WHSs were constructed in Vyara and Dharampur SCSD because the structures were required to prevent run off water. The benchmark survey was carried out and documented as success story. Director of Evaluation (DoE) conducted the impact evaluation of scheme implementation and the feasibility of WHS location was assessed based on GIS map collected from BISAG.

We do not accept the reply, as scheme guidelines are specific to construction of WHS in low rainfall area. Further, the reply did not elaborate the reasons for violation of scheme guidelines.

**Desilting of village pond**

**2.2.38** The GoG formulated a scheme for desilting of village ponds in April 2005, which was to be implemented by the Company in ten districts[23] of the State. The main objective of the scheme was to conserve runoff water by increasing storage capacity and percolation capacity of the existing village ponds by deepening and de-silting them, which in turn would recharge the water table of surrounding wells by increasing their command area. Earthwork is the only component for desilting of village pond, which can be carried out either by excavators or bulldozers. Upon receipt of application from Panchayat, the charge office under SCSD surveys the pond, prepares a fair plan estimate, gets approval of SCSD, obtains work order for excavator or bulldozer, collects advance cash contribution and awards work. This is the only scheme wherein the Company awards contracts for hiring of excavators on district wise and year wise basis. The Company awards work either to the excavator contractor on *per* cmt basis or to Company's mechanical division for providing bulldozers at approved hourly rate. In case of excavators, upon work completion, charge office measures work done in MB, prepares and submits vouchers to SCSD for payment to contractor. On the other hand, for bulldozer work, the charge office records number of hours in MB for which bulldozers were operated and based on the bill received from mechanical division releases payment. During 2007-08 to 2011-12, the Company received grants of ₹ 159.85 crore for desilting of 2,821 village ponds. Under the scheme 10 *per cent* of the expenditure was allowed as administrative expenditure, which amounted to ₹ 13.42 crore during 2007-08 to 2011-12. The Company desilted 3,285 village ponds at the total cost of ₹ 139.36 crore. This included an expenditure of ₹ 30.34 crore in selected SCSDs.

***Violation of scheme directives***

**2.2.39** The GoG stipulated (April 2005) in its GR that Mechanical division of the Company be closed and its 97 bulldozers be sold by 31 March 2006. The personnel of the division were to be utilised in the Company and other GoG offices. After April 2006 the desilting activity of village ponds in the ten districts identified for this purpose was to be executed through machinery (excavator) hired through a tender process only.

We observed that the Mechanical division was not closed and the staff thereof was working (October 2012). Only 34 out of 97 bulldozers were disposed-off till October 2012. Remaining 63 bulldozers were used along with hired excavators in all the ten districts. Further, no record of quantum of desilting work done by bulldozers was maintained by the SCSDs as is done in case of excavators.

The Management replied (October 2012) that closure of mechanical division was not possible due to continuous demand of bulldozers by local leaders, Members of Parliament (MPs) and Members of Legislative Assembly

[23] Ahmedabad, Amreli, Bhavnagar, Gandhinagar, Jamnagar, Junagadh, Kachchh, Porbandar, Rajkot and Surendranagar.

(MLAs). Further, it added that earthwork done by bulldozers was around 35 cmt *per* hour. We do not accept the reply as this is a violation of the GoG directions and the Company has no evidence in support of the earthwork quantity excavated by bulldozers.

A case of excess expenditure due to delay in finalisation of the tenders for hiring of excavators is discussed below:

***Excess expenditure in hiring excavators***

**2.2.40** The GoG had stipulated tendering for excavator hiring in all the 10 districts from 1 April 2006. We observed that in March 2006 the Company had invited open tenders for annual rate contract for hiring of excavators wherein district-wise L1 rate received ranged from ₹ 19.80 to ₹ 21 *per* cmt, which was, however, not converted into work order pending the GoG approval. The GoG directed (January 2007) the Company to immediately finalise new tenders and allowed the Company to make the payment at GR rate of ₹ 24.25 *per* cmt till award of new contract.

We observed that the tendering process for hiring of excavator was done again only in March 2010 wherein district-wise L1 rates ranged between ₹ 18 and ₹ 24 *per* cmt. These tenders were converted into district wise orders (April 2010). This led to payment of higher rates during the intervening period and could have been minimised, had the tenders finalised timely.

The Management replied (October 2012) that the works were being carried out at the rate of ₹ 24.25 *per* cmt as per the scheme GR and further approval for continuance taken from the GoG. We do not accept the reply as the scheme guidelines itself envisaged invitation of tenders and the further approval taken from the GoG was only for the interim period pending the immediate finalisation of tenders. The approval was not for continuance of GR rate upto March 2010.

**Reconstruction of damaged assets due to flood and heavy rain**

**2.2.41** The GoG introduced the above scheme (March 2007) as WHS were damaged due to flood and heavy rains during July-August 2006 resulting in runoff of rain water stored in these structures. These structures were required to be reconstructed by incurring nominal expenditure benefitting the farmers for a longer period. This scheme was mainly introduced for the reconstruction of masonry WHS constructed by the Company in Government/ Panchayat land. The charge office under SCSD surveys the site, prepares a fair plan estimate, gets approval of SCSD, obtains work order, and without inviting tenders, hires mason for execution at prevailing SoR. On work completion charge office measures work done in MB, prepares and submits vouchers to SCSD for release of funds and consequent payment to mason. During 2007-08 to 2011-12, the Company received grants of ₹ 20.54 crore for repairing of 9,130 WHS. Against these targets 6,023 WHS were repaired at the cost of ₹ 20.52 crore. This indicated that the physical progress was not commensurate with the expenditure incurred. The details of expenditure incurred for

repairing of WHS in Government, Panchayat and Private land are given below:

***(₹in lakh)***

| Year | Expenditure incurred for repairing of WHS in | | | Total |
|---|---|---|---|---|
| | Government Land | Panchayat Land | Private Land | |
| **2007-08** | 46.70 | 26.53 | 135.63 | 208.86 |
| **2008-09** | 239.03 | 110.72 | 490.22 | 839.97 |
| **2009-10** | 43.68 | 102.36 | 152.26 | 298.30 |
| **2010-11** | 43.01 | 94.84 | 201.14 | 338.99 |
| **Total** | **372.42** | **334.45** | **979.25** | **1,686.12** |

(**Source:** Information for 2007-08 to 2010-11 from annual accounts)

We observed the following:

**Expenditure of ₹ 9.79 crore incurred on reconstruction of private assets instead of community assets**

- Against the community assets envisaged to be repaired under the scheme, the Company had incurred an expenditure of ₹ 9.79 crore out of ₹ 16.86 crore for repair (masonary works) of WHS constructed on private land during 2007-08 to 2010-11;
- Photographs required to be taken prior to taking up the reconstruction work, were not available;
- Since the introduction of the scheme from 2007-08, the Company did not maintain stipulated data bank on the masonry structure created/ repaired so as to avoid duplication of repair work and enable identification of structures for future maintenance.

The Management replied (October 2012) that there was no clarification in the GR that the scheme was not meant for maintenance of assets on private land. We do not accept the reply as the scheme was introduced for maintenance of the assets on Government/ Panchayat land.

## Watershed based Government of India schemes - Macro Management Agriculture

**2.2.42** The Macro Management Agriculture (MMA) scheme was launched by the GoI in 2000-01 by integrating 27 centrally sponsored schemes in partnership with the States. The pattern of financial assistance under the scheme was 90 *per cent* Centre's share and 10 *per cent* State's share. MMA scheme was revised (July 2008) with certain newly added schemes. Under MMA, four schemes[24] were implemented by the GoG through the Company. During 2007-08 to 2011-12, the Company received grants of ₹ 169.70 crore for soil conservation scheme for treatment of 3,17,337 ha of land. Against the target, the Company treated 2,12,188 ha at the cost of ₹ 165.73 crore. Hence, the physical achievements were not commensurate with the targets fixed during 2007-08 to 2011-12.

[24] National Watershed Development Project for Rain fed Area (NWDPRA); River Valley Projects and Flood Prone Rivers (RVP&FPR); Reclamation and Development of Alkali and Acidic soil (RDAA), Reclamation of Ravine (Innovative).

***Fund allocation among the four schemes***

**2.2.43** The GoG intimates to the Company every year the budgeted allocation in a fixed proportion among the four schemes of MMA. When funds are received against the above allocation, the Company should release the funds to the SCSDs for the four schemes in the already fixed proportion. We observed that Company did not allocate the funds to the SCSDs in the GoG decided proportion. This resulted in excess allocation of ₹ 13.93 crore to River Valley Projects and Flood Prone Rivers scheme (RVP & FPR) and short allocation by ₹ 5.41 crore in National Watershed Development Project for Rain fed Area (NWDPRA), ₹ 0.22 crore in Reclamation and Development of Alkali and Acidic Soil and ₹ 8.30 crore in Reclamation of Ravine (Innovative). During 2007-08 to 2008-09 the GoG did not fully contribute its 10 *per cent* share to the extent of ₹ 0.98 crore. However, in remaining period of review, the GoG contributed as per proportion.

**Excess release of MMA funds of ₹ 13.93 crore to RVP & FPR against the budgeted fund allocation**

The Management replied (October 2012) that the MMA scheme guidelines provide for transfer of funds amongst the various MMA schemes and as the Company had approved projects under RVP & FPR it had released more fund to RVP & FPR for utilisation. However, the Management did not provide any document in support of their contention. As the GoG releases funds in fix proportion to the four schemes, the deviation made by the Company should have been reported to GoG.

**National Watershed Development Project for Rain fed Area (NWDPRA)**

**2.2.44** NWDPRA was launched (1986-87) with the objective of conservation, development and sustainable management of natural resources and agricultural productivity. Further, restoration of ecological balance in rain fed eco system and creation of sustained employment opportunities for rural community was also envisaged. In absence of maintenance of cultivation records of pre and post scheme implementation period by the Company, it is not possible to assess the achievement of these objectives. The project activities are executed in four to seven years duration and are sequenced into (i) Preparatory phase; (ii) Works phase; and (iii) Consolidation and withdrawal phase.

***Infructuous expenditure on preparatory phase***

**2.2.45** The preparatory phase *inter alia* comprises of undertaking entry point activities to establish credibility of Watershed Development Team (WDT), to create rapport with village community and preparation of detailed project report (DPR). These activities include awareness among villagers, capacity building and training. The entry point activity can be undertaken up to four *per cent* of the project cost, provided a WS committee is formed by the implementing agency and the members of the beneficiary community are willing to contribute five *per cent* of the entry point activity cost in the form of cash or labour.

**An expenditure of ₹ 63.45 lakh was incurred for entry point activity without forming watershed committee**

We observed that in violation to the above guidelines, the Surendranagar SCSD incurred (2008-09 to 2009-10) an expenditure (entry point and other preliminary expenses) of ₹ 63.45 lakh[25] in nine villages without formation of a WS committee. Further, community contribution towards entry point activity cost was also not taken from the beneficiaries. Thereafter, further activities as regards works phase were not carried out in these nine villages. This resulted in wasteful expenditure of ₹ 63.45 lakh on entry point.

The Management replied (October 2012) that due to delayed registration of the WS committee and insufficient allocation of funds from the GoI the project was dropped. We do not accept the reply as the Company despite having some approved projects in hand, diverted funds in favour of other schemes as discussed in paragraph **2.2.42** *supra*.

**River Valley Projects and Flood Prone Rivers (RVP&FPR)**

**2.2.46** Soil conservation in catchments of the River Valley Projects and Flood Prone Rivers **(**RVP & FPR) was launched (1992) for prevention of land degradation by adopting multi-disciplinary integrated approach of soil conservation and WS management in catchment area, improve land capability and moisture regime in WSs, prevention of soil loss to reduce siltation and enhance the in-situ moisture conservation. The scheme was envisaged to be implemented with 100 *per cent* subsidy from the GoI except in respect of land leveling and terracing activity (which was to be restricted to 10 *per cent* of total WS cost) wherein minimum 25 *per cent* contribution in cash/labour was to be recovered in advance from beneficiary. The Company incurred a total expenditure of ₹ 62.64 crore under RVP & FPR scheme during 2007-08 to 2011-12 of which ₹ 39.08 crore was incurred in the selected SCSDs. In violation of the Scheme guidelines the Company showed ₹ 11.83 crore as loan recoverable instead of collecting advance contribution from the beneficiaries in cash or labour.

Other irregularities in implementation of the scheme are discussed below:

***Non execution of envisaged activities vis-à-vis excess expenditure***

**2.2.47** As per the guidelines for RVP & FPR schemes in operation up to June 2008, the average unit cost of entire treatment should be ₹ 5,000 *per* hectare for land having more than eight *per cent* slope and ₹ 3,200 per hectare for land up to eight *per cent* slope. Dahod SCSD implemented 40 RVP & FPR projects during 2007-08 to 2011-12 at a cost of ₹ 40.61 crore of which 13 were completed and remaining were under execution. We reviewed records related to 13 completed projects[26]. Out of

[25] Administrative cost - ₹ 2.54 lakh, activities required by the villagers like construction of farm pond, community hall, etc - ₹ 36.09 lakh, institution and capacity building - ₹ 0.74 lakh and training - ₹ 24.08 lakh.

[26] In which works like contour bunding, countour veg hadge, land levelling, etc in agriculture land; pasture development, gap filling and silvi pasture development, etc in waste land; and making earthen loose boulders, loose boulders with vegetative support, WHS, etc in drainage line treatment under agriculture and waste lands were completed.

these 13 projects, in respect of 11 projects the total estimated cost was ₹ 15.70 crore whereas the actual expenditure incurred was ₹ 20.30 crore. Thus, there was an excess expenditure of ₹ 4.60 crore i.e., an increase of 29.30 *per cent*. Though the increase in expenditure was more than 10 *per cent* of project cost, approval of District Agriculture Committee (DAC) as prescribed in the scheme guidelines was not obtained. Despite the excess spending, 19 activities related to afforestation, vegetative fencing, horticulture, construction of percolation tanks etc., estimated to cost ₹ 0.70 crore were not carried out in these 11 projects. In respect of remaining two projects, the total estimated cost was ₹ 2.02 crore, whereas, the actual expenditure incurred was ₹ 1.09 crore, thus, there was short expenditure of ₹ 0.93 crore during 2007-08. In these projects SCSD did not carry out 21 activities costing ₹ 0.58 crore related to afforestation, vegetative fencing, horticulture, construction of percolation tanks etc.

**An expenditure of ₹ 8.43 crore was incurred in excess of average norms of the scheme**

In the 13 completed projects, total 25,908 ha area was treated by incurring an expenditure of ₹ 21.39 crore giving a *per* hectare cost of ₹ 8,255. Even considering the cost norm of ₹ 5,000 *per* hectare for more than eight *per cent* slope of land, the excess expenditure above the average norm was ₹ 8.43 crore (₹ 3,255 × 25,908 ha = ₹ 8.43 crore).

In Palanpur SCSD, 19 RVP & FPR projects were planned for execution at a cost of ₹ 9.29 crore during 2007-08 to 2011-12. Of these, five projects estimated to cost ₹ 32.98 lakh proposed for 2007-08 were not executed at all. No reasons were on record for non-execution of these projects. Further, in case of four projects estimated to cost ₹ 1.80 crore, the SCSD incurred total expenditure of ₹ 3.86 crore i.e., an excess expenditure of ₹ 2.06 crore (114 *per cent* increase). However, approval of District Agriculture Committee (DAC) was not obtained for the excess expenditure.

The Management replied (October 2012) that the WS expenditure in the SCSDs commented by Audit was not beyond the project cost approved by the GoI and, therefore, the DAC approval was not required. Further, the expenditure in each WS was within the limit of the GoI approval. However, the Management neither furnished relevant documents in support of their contention nor provided reply specific to our observation.

***Absence of monitoring system***

**2.2.48** As per the guidelines, a hydrologic and sediment monitoring system at the WS should be installed for monitoring and evaluation of the impact of activities undertaken under the scheme in one out of every five WSs for a period of seven years from the time the project is launched. We observed that neither such a system was installed nor any monitoring was done for evaluation of the effectiveness of activities undertaken under the scheme in any of the 13 WSs in Dahod SCSD.

***Short creation of corpus fund***

**2.2.49** The RVP & FPR scheme envisages creation of a corpus fund being two *per cent* of the total investment in the WS for the maintenance of

community assets. Contribution to the extent of one *per cent* was to be made out of the GoI fund and remaining one *per cent* by the GoG / local self-Government. However, we observed that a corpus fund of ₹ 2.50 lakh only was created against the requirement of ₹ 21.39 lakh being one *per cent* of total investment of ₹ 21.39 crore for 13 RVP & FPR projects completed and saturated in Dahod SCSD. Further, no amount was collected which was to be contributed by the GoG / local self-Government. This resulted in violation of the scheme guidelines to ensure sustainability of the works.

The Management in their reply accepted (October 2012) our observation and stated that the fund allocated under the GoG scheme for Reconstruction of damaged assets due to flood and heavy rains were utilsed for maintenance of assets.

**Reclamation and Development of Alkali and Acidic soil**

**2.2.50** The Reclamation and Development of Alkali and Acidic soil (RDAA) scheme was launched with the objective to reclaim land affected by alkalinity to improve land productivity with a view to increase crop/horticulture/fuel and fodder production, besides generating employment opportunity to arrest rural-urban migration. Under the scheme, based on the water and soil test reports besides arranging assured water supply, the soil amendment activity is carried out by application of gypsum and pyrite in the land affected by alkalinity. Only Anand SCSD among the selected SCSDs implemented the RDAA project in 50 villages during 2007-08 to 2011-12. Activities carried out and completed in nine villages during 2008-09 to 2010-11 were reviewed. The following table gives details about physical and financial achievement in RDAA implemented in nine villages during 2008-09 to 2010-11:

| Name of Village | Physical (in ha) | | | | Financial (₹ in lakh) | | | |
|---|---|---|---|---|---|---|---|---|
| | Appro-ved | Actual | Short Fall | *per cent* Work Done | Appro-ved | Actual | Short Fall | *per cent* exp. incurred |
| Antoli | 524.00 | 430.00 | 94.00 | 82.06 | 69.49 | 21.95 | 47.54 | 31.59 |
| Bhaniyara | 573.41 | 470.00 | 103.41 | 81.97 | 74.38 | 16.80 | 57.58 | 22.59 |
| Gojali | 306.77 | 300.00 | 6.77 | 97.79 | 42.10 | 12.50 | 29.60 | 29.69 |
| Jarod | 1,090.00 | 1,030.00 | 60.00 | 94.50 | 137.85 | 36.27 | 101.58 | 26.31 |
| Kamlapur/ Pipariya | 634.36 | 550.00 | 84.36 | 86.70 | 82.23 | 25.94 | 56.29 | 31.55 |
| Kamrol | 771.00 | 590.00 | 181.00 | 76.52 | 98.39 | 20.41 | 77.98 | 20.74 |
| Kotambi | 1,598.00 | 1,300.00 | 298.00 | 81.35 | 196.51 | 40.82 | 155.69 | 20.77 |
| Mavli | 485.22 | 480.00 | 5.22 | 98.92 | 64.58 | 15.50 | 49.08 | 24.00 |
| Vanadra | 1,156.00 | 900.00 | 256.00 | 77.85 | 149.81 | 32.15 | 117.66 | 21.46 |
| **Total** | **7138.76** | **6050.00** | **1088.76** | | **915.34** | **222.34** | **693.00** | |

We observed that though the physical achievement ranged between 77.85 and 98.92 *per cent*, the expenditure incurred ranged from 20.74 to 31.59 *per cent* only. This indicated that no proper assessment of fund requirement was done.

The Management replied (October 2012) that farmers executed the crop management component themselves, so the physical achievement was more than the expenditure incurred. We do not accept the reply because the work done by the farmers should not have been included in physical targets. Further, one component cannot lead to such a wide variation between physical and financial targets.

***Incorrect categorisation of villages***

**2.2.51** Under this scheme, the element of subsidy to the beneficiaries was dependent on the category (alkalinity) of soil, which should have been determined through plot-to-plot soil testing.

We observed that in the nine villages test checked, the soil testing was done on random sampling basis instead of on plot-to-plot basis. Further, as per the scheme, if pH (alkalinity) level was between 8.2 and 8.99, then it was to be classified as 'A' category soil, 9 to 9.5 as 'B' category soil and above 9.5 as 'C' category soil. 'A' category soil was only entitled to 50 *per cent* subsidy for expenditure incurred for soil amendment by using gypsum/ pyrite. The beneficiaries were not entitled to any subsidy for the remaining six activities like farm development, link drain, bund, green manure, etc. However, in the nine villages test checked, the random sampling done showed pH below 8.99 *per cent*, yet the plots were classified as 'B' and 'C' category soil, entitling the beneficiaries to subsidy under more number of activities.

**Incorrect classification of beneficiary based on the soil test report resulted in excess subsidy payment of ₹ 2.01 crore**

This resulted in excess expenditure of ₹ 2.01 crore as out of the total expenditure of ₹ 2.19 crore only ₹ 0.18 crore pertained to soil amendment using gypsum/ pyrite which 'A' category soil owners were entitled to .

The Management replied (October 2012) that soil testing for entire land was expensive hence was not carried out on plot-to-plot basis. It was also stated that audit has derived its conclusion that the area falls under 'A' category based on two to five testing reports of an area, whereas, the area was actually under 'C' category. We do not accept the reply because the management has not furnished any data or testing report of the area test checked by Audit for classifying the same in 'C' Category. Further, the justification given by the Company for not carrying out soil testing on plot-to-plot basis is also not acceptable as per the guidelines of the Scheme.

## Project based Government of India schemes - Rashtriya Krishi Vikas Yojana

**2.2.52** The National Development Council resolved (May 2007) to launch a special additional central assistance scheme viz., Rashtriya Krishi Vikas Yojana (RKVY) for achieving four *per cent* annual agricultural growth by ensuring holistic development of agriculture and allied sectors. The main objectives of the scheme are to provide incentive to the States for increased investment in Agriculture; provide autonomy to States in planning and executing the agriculture and allied sector schemes; and bringing quantifiable change in the production and productivity by addressing the problems in a holistic manner. The State was to use one *per cent* of total RKVY funds for incurring administrative expenditure and the Department of Agriculture, the GoI was to retain one *per cent* of RKVY funds to organise Pan-India evaluations or for administrative contingencies. Minimum 75 *per cent* of the total funds under the scheme were to be available for Projects approved by

State Level Sanctioning Committee (SLSC)[27] under Stream-I and the balance 25 *per cent* fund under Stream-II was to be the untied assistance to the States to bridge the resource gaps of the State plan schemes. the GoG through the Company implemented 12 sub schemes that formed part of the focus area of RKVY for which projects under Stream-I were approved by SLSC. During 2007-08 to 2011-12, the Company received grants of ₹ 616.58 crore for RKVY (including ₹ 5.88 crore claimed for contingency). The Company treated 3,52,625 ha of land at the cost of ₹ 612.68 crore (including administrative expenses ₹ 5.87 crore) and out of this expenditure ₹ 289.16 crore was incurred in selected SCSDs.

We observed the following irregularities in the implementation of the scheme.

***Undue benefit to individual farmers***

**2.2.53** Construction of farm ponds/ tanks/ reservoirs for individuals and community was envisaged under the water harvesting and management activity of the Rain fed Area Development Programme (RADP). The scheme envisaged a financial limit of ₹ 15 lakh for community pond with 100 *per cent* subsidy and ₹ 1.20 lakh *per* pond for individual with 50 *per cent* subsidy.

**In violation of the scheme guidelines, the Company constructed 10 community ponds resulting in passing of undue benefit of ₹ 1.44 crore to 10 individual farmers.**

We observed that Chhota Udepur SCSD constructed 10 big size community ponds costing ₹ 15 lakh each for 10 individuals. In all 10 cases consent for construction was received from individual farmers and not from a community of farmers as required for community ponds. There was no evidence of any community agreement also. As per the scheme requirements, the Company should have constructed ponds worth ₹ 1.20 lakh only in each case and shown 50 *per cent* as recoverable from beneficiaries. The Company has given an undue benefit to individual farmers of ₹ 1.44 crore (₹ 1.50 crore *less* 50 *per cent* of ₹ 12 lakh) as a result of constructing community ponds for individuals.

The Management replied (October 2012) that the ponds referred to above were community-based ponds and hence no individual benefits were given. However, the Management had not furnished any documents in support of their contention.

***Inadequate fund allocation***

**2.2.54** RKVY is a project based GoI scheme. Under the scheme the GoG can decide the projects to be implemented under the various categories of sub-schemes laid down under RKVY. As discussed in para **2.2.11** *supra*, the Company had implemented 13 sub-schemes during 2007-08 to 2011-12. The GoG allocated funds to the Company for projects approved in each sub-scheme. However, the Company did not give directions to SCSDs for utilising the funds for specific projects. Therefore, SCSDs allocated the funds to the projects on *ad hoc* basis as discussed below.

[27] SLSC is headed by the Chief Secretary of the State that has the authority to sanction specific projects under the Stream-I. The quorum for a meeting of SLSC shall not be complete without the presence of a GoI official.

Based on the records made available to audit, we analysed data of seven sub-schemes involving 232 projects in the selected SCSDs reviewed under RKVY during 2007-08 to 2011-12. The implementation period for each project was one year. The targets were given in financial and physical terms for the projects. As far as physical performance was concerned, the targets were fixed in various measurable units i.e., for treatment of land in hectare, for construction of water body structure in number and for other constructions in running meters (RMT) depending on the nature of works[28]. The physical and financial targets fixed and the achievements made there against under the seven sub-schemes in respect of selected SCSDs for the period 2007-08 to 2011-12 is given in ***Annexure* 9**. The financial achievements of all projects implemented by six SCSDs ranged between 22 and 77 *per cent* against targets fixed. Further, we observed that:

- In the Chhota Udepur SCSD the expenditure incurred in four out of five schemes was less than 50 *per cent*. A detail analysis of the works executed under the schemes revealed that under the Scheme for checking of salinity ingress in the coastal area it had not executed any works for construction of reclamation bund (measured in RMT) against the targets given. In restoration of fertility in waterlogged area scheme, the expenditure incurred by it was more than target in respect of creation of structures and deepening of sim talavs (both measured in numbers) and the expenditure incurred was not in proportion to the physical performance.

  In reclamation of ravine area scheme, the SCSD did not execute the works for construction of peripheral bund and drainage line (measured in RMT) against the physical targets fixed**.** In rain fed area development scheme, the expenditure incurred for farm pond works (measured in numbers) was not in proportion to the physical performance achieved.

- In Anand SCSD, the expenditure incurred in three out of six schemes was less than 50 *per cent*. In respect of restoration of fertility in waterlogged area scheme the physical and financial performance was even less than one *per cent* of targets fixed for construction of drainage line (measured in RMT). In the scheme for reclamation of degraded bhal[29] area, the expenditure incurred for the works of green manuring and deep ploughing (measured in hectares) was more and not in proportion to the physical performance achieved. In the scheme for

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[28] **Hectare:** Field bunding, Land levelling, land shaping, soil amendment, Green manuring, organic farming/ deep ploughing, Afforestation, Silvi pasture, Horticulture, drainage line treatment, dry land horticulture, oversiding of grasses, contour trench, sim protection bund, bank stabilisation, Counter bunding with link Drainage vegetative Support, Kyari making etc.
**Structures (numbers):**Loose boulder structure, Drought pond, farm pond, Nala plugging, Earthen WHS, Masonry check dam, percolation tank, recharging of well, recharging of village tank, recharging of village tank/ Gam talav, gully control measures, earthen nala plug, small gully plug, nala plug, sim pond, loose stone structure, staggered trench, deepening of sim talav, deepening of village pond etc.
**RMT:** Reclamation Bund, Drainage Line, peripheral bund etc.

[29] Bhal is an area spread across two districts viz. Bhavnagar and Ahmedabad.

problematic saline alkaline soil, though the SCSD had achieved 61 *per cent* of its financial target, it had not constructed any structure of small gully plug, earthen nala plug and staggered trenching and instead constructed only earthen WHS (measured in numbers) in excess of its physical target.

- Even after spending 70 *per cent* of funds earmarked for restoration of fertility in waterlogged area scheme, Vyara SCSD did not achieve any physical performance in respect of contour bunding, green manuring and soil amendment works (measured in hectares).

- Palanpur SCSD though incurred 77 *per cent* expenditure against the financial target fixed for the scheme of enhancing water resources of dark zone had not constructed any drainage line (measured in RMT) against the physical target fixed.

- The expenditure incurred by Surendranagar SCSD for farm pond works (measured in numbers) were not in proportion to the physical performance achieved in rain fed area development scheme.

No justification was on record for incurring of disproportionate expenditure on works as cited above. Moreover, none of the SCSDs had achieved either the physical and financial targets during implementation of the schemes. This showed that targets were not fixed for the projects after proper assessment.

The Management replied (October 2012) that the RKVY projects had been implemented as per the availability of the grants for the specific projects and physical achievements made accordingly. Incomplete projects are included under next year planning. Certain physical works if already carried out by other departments were not carried out under RKVY. We do not accept the reply as it does not give the reasons for incurring disproportionate expenditure or for the excess/ non-execution of work. Further, the Management has not given any details of the works already executed by other departments in the projects mentioned above.

## Recovery of scheme funds

**2.2.55** The Company implements four schemes wherein loan component is included which is recoverable with interest in instalments. Of the four schemes, advance contribution is mandatory in SCNA and KYTA schemes and voluntary in SCSC scheme. The SCSD recovers advance contribution and loan instalments from beneficiary and deposits it to head office. The irregularities noticed in respect of recovery mechanism are discussed below.

***Non surrendering of advance contribution/ loan recovery***

**2.2.56** The Rule 154 (5) of Gujarat Financial Rules (GFR), 1971 specifies that grant allotted other than for specific object wherein time limit for utilisation is not prescribed, shall be subject to utilisation within a reasonable time. Any portion of that grant not ultimately required shall be duly surrendered to the GoG. During the review period the Company received an amount of

₹ 17.85 crore as advance contribution/ loan recovery from the beneficiaries of the four schemes. As these were advance contribution/ loan recovery against the work, which were already executed under the GoG Schemes, these recoveries should have been remitted to the GoG. However, the Company has retained these amounts and kept the same in separate bank account at its HO.

The Management replied (October 2012) that as per guidelines of the schemes no contribution is to be recovered from the beneficiaries under the schemes discussed above. We do not accept the reply as the scheme guidelines stipulates for recovery of advance contribution/loan and due to this, the Company received the amount of ₹ 17.85 crore from the beneficiaries. This amount has to be remitted as per the provisions of GFR.

***Low recovery of loans***

**2.2.57** As on 31 March 2012 loan recovery of ₹ 97.04 crore was pending of which ₹ 36.26 crore was outstanding for more than five years. However, no action was taken by the Company for recovery of loan as arrears of revenue. Of the above mentioned ₹ 97.04 crore, an amount of ₹ 52.04 crore was not recoverable due to operation of law of limitation. Moreover, in the absence of a formal agreement, these loans are not enforceable even in a court of law.

We observed that the Company did not follow the procedure for preparation of completion report and consequent issuance of recovery statement in a time bound manner. While, no recovery statement was issued in respect of SCSC scheme, the percentage of number of recovery statements in respect of SCNA was 1.90 *per cent*. In the remaining schemes it was 33-34 *per cent*.

The Management attributed (October 2012) the low recovery of loans to the inability of farmers to repay the loan, general tendency of farmers to wait for loan waivers and shortage of staff resulting in delayed preparation of loan recovery statements.

***Common deficiencies in implementation of all schemes***

**2.2.58** We observed the following common deficiencies in scheme implementation indicating the existence of weak monitoring and control system:

- The SCSDs while implementing the scheme did not take photographs of the work before commencement, after completion and after the first monsoon to establish the successful execution of work.
- The SCSDs did not maintain consolidated application register[30] as required by HO to establish its requirement for implementing the scheme in its jurisdiction and consequently raise the requirement of grant.

[30] It contains the details viz., name of farmer, survey no., land holding, mane of village, application date, etc.

- Target were not fixed and communicated by HO to respective SCSDs before commencement of the financial year but only in the last quarter of the year.
- The details about the nature of work executed under the schemes giving village wise and survey number wise details to ensure that a work was not executed earlier under different schemes in different years and vice versa were not maintained.
- The proactive Right to Information disclosures related to work executed in 25 districts of the State were neither updated by the Company for more than one year in all districts nor provided with adequate information of all the works executed.
- The SCSDs issued bearer cheques to the charge supervisors for values upto ₹ one crore at a time against the indemnity bond of ₹ one lakh furnished by the charge supervisor. This exposed the Company to the risk of loss of grant funds.

The Management in its reply stated (October 2012) that necessary actions would be taken as per our observations.

***Violation of labour laws***

**2.2.59** The charge offices directly employ the labourers available locally for execution of various soil and water conservation works based on the Company's SoR. One member from each labour family was designated as head of the family. One, out of five to six heads of the family, was designated as Gang Leader to facilitate payment to labourers. The payment to labourers was made in the presence of Gang Leader. However, no documents viz., identity card issued to agriculture labourers by rural labour commissioner, ration card, etc were available on record to establish the fact that only the family members of the head of the family were employed and paid for the work.

We observed that the following labour law[31] provisions were not adhered to by the Company.

- No registrations under the Act were obtained nor were returns submitted under the Act.
- Register of persons employed for works with their Employment Card number was maintained.
- Payment of wages was made beyond the stipulated period. An instance was noticed in Vansada charge office under Dharampur SCSD where payment of ₹ 76.50 lakh to labourers for work done in April/ May 2010 was made after a delay of one year.

The SoR approved for soil work execution in the Company is as under:

[31] The Contract Labour (Regulation and Abolition) Act, 1970 and the Contract Labour (P&R) (Gujarat) Rules, 1972.

***(Amount in ₹)***

| Sl. No. | Type of Soil | SoR *per* cmt before 15 April 2011 | | SoR *per* cmt after 15 April 2011 | |
|---|---|---|---|---|---|
| | | Labour rate[32] including charges | Machine | Labour rate[32] including charges | Machine |
| 1 | Loose or soft soil | 18.50 | 22.00 | 30.50 | 30.00 |
| 2 | Clay/ Hard Clay/ Yellow or red soil/ Hard soil | 23.15 | | 38.15 | |
| 3 | Average soil and Murrum/ Soft Murrum | 27.25 | | 44.70 | |
| 4 | Hard Murrum | 36.80 | | 61.00 | |

The above labour rates were exclusive of lead and lift charges. We observed that the payments were made at labour rates mentioned Sl. No. 2, 3 and 4 of the above table. These rates were higher than the prevailing machine rate for hiring tractors/ excavators.

We observed that none of the selected SCSDs had collected any proof related to labourers. Therefore, the possibilities of execution through machine at lower rate and claim from the Company at higher labour rate could not be ruled out, as no proof either of identity or residence of labourers were collected and the wages were paid in cash.

The Management replied (October 2012) that non-availability of sufficient grant resulted in delayed payment and assured to take care for timely payment in future. Further in respect of other observations it stated that legal opinion would be obtained and accordingly necessary steps would be taken.

## Evaluation of schemes

**2.2.60** The Company did not evolve a system for periodical evaluation of schemes for analysing the bottlenecks, if any, experienced during the execution for suggesting mid-course corrections. We observed that the Company implemented 22 tribal and non-tribal GoG schemes; however, only four[33] schemes were evaluated by Director of Evaluation, GoG in previous ten years and none of the recommendations were accepted/ implemented by the Company. The Company has not evaluated the newly introduced scheme in eleventh Five Year Plan viz., reconstruction of assets. Further, six schemes[34] were not evaluated, though they were implemented for more than five years.

In the absence of evaluation, we could not ascertain whether the achievement conformed to the targets/ objectives set forth and was commensurate with the expenditure.

The Management replied (October 2012) that evaluation reports of certain schemes were in progress and in respect of the remaining schemes, the evaluation would be done in future.

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[32] This includes amount related to sharpening of pick-axes charges.

[33] Construction of WHS (December 2007), Construction of farm ponds and sim talavs (December 2011), SCNA (May 2005) and SCTA (May 2005).

[34] Soil conservation work of Scheduled caste cultivators field, Kyari making for paddy cultivation in Dangs District, IWDP for prevention of Salinity Ingress in coastal areas of Saurashtra, Scheme for ravine reclamation, Reclamation of saline alkaline soil for bhal area, and IWDP in tribal area of Gujarat.

## Acknowledgement

We acknowledge the cooperation and assistance extended by different levels of the Management at various stages of conducting the performance audit.

## Conclusion

- **The SCNA and SCTA schemes guidelines envisaged various soil and water conservation activities like land terracing, farm pond, contour bunding, etc. The Company, however, carried out only land terracing activities on the ground that farmers wanted it.**
- **In the WS based schemes of the GoG, activities were not carried out in a holistic and contiguous manner because targets were fixed on hectare basis instead of WS basis and because activities of a scheme were not synchronised in the required manner.**
- **The soil and water conservation works were not executed economically as higher GR rate instead of lower SoR rate was paid under farm pond scheme; delay in finalization of tender led to payment at higher excavator rates.**
- **Scheme for reconstruction of community assets was introduced for maintenance of structures constructed on Government and panchayat land. However, major portion of funds were utilsed for reconstruction of private assets.**
- **Recovery mechanism was not implemented effectively resulting in accumulation of arrears of loan recoverable that was pending for more than five years.**
- **The system for evaluation of scheme for mid-course corrections is not in place as only two schemes were evaluated in five years.**

## Recommendations

- **The Company should carry out all the activities envisaged in scheme guidelines to avail optimal benefits of the works executed under the scheme.**
- **The targets for WS based schemes should be fixed on WS basis and the activities of a scheme should be synchronised in the required manner.**
- **Execution of soil and water conservation works should be undertaken at economical rates.**
- **Reconstruction of only community assets constructed on Government/ panchayat land should be undertaken.**
- **The reasons for increase in outstanding loans should be analysed and effective recovery mechanism adopted.**
- **Effective system for timely evaluation of schemes should be devised to facilitate mid-course correction in the schemes.**

We reported the matter to the Government (September 2012); we are awaiting their replies (December 2012).