CHAPTER II
ECONOMIC SECTOR

2.1 Introduction

This Chapter of the Audit Report for the year ended 31 March 2015 deals with the findings on audit of the State Government units under Economic Sector.

The names of the State Government departments and the total budget allocation and expenditure of the State Government under Economic Sector during the year 2014-15 are given in the table below:

Table 2.1.1

(₹ in crore)

Sl. No.	Name of the Departments	Total Budget Allocation	Expenditure
1	Animal Husbandry, Livestock, Fisheries and Veterinary Services	48.97	40.63
2	Buildings and Housing	56.92	49.59
3	Commerce and Industries	57.62	44.99
4	Co-operation	16.52	15.31
5	Energy and Power	202.78	167.75
6	Food Security and Agriculture Development	73.00	51.16
7	Forest, Environment and Wildlife Management	286.23	175.98
8	Horticulture and Cash Crops Development	93.69	59.92
9	Irrigation and Flood Control	154.48	22.66
10	Mines, Minerals and Geology	4.23	3.78
11	Roads and Bridges	303.16	155.05
12	Rural Management and Development	494.19	379.95
13	Tourism and Civil Aviation	442.72	285.05
14	Transport	56.87	51.19
15	Urban Development and Housing	280.86	111.56
16	Water Security and Public Health Engineering	92.04	55.51
	TOTAL	**2,664.28**	**1,670.08**

Besides the above, the Central Government has been transferring a sizeable amount of funds directly to the implementing agencies under the Economic Sector to different departments of the State Government. The major transfers for implementation of flagship programmes of the Central Government are detailed below:

Table 2.1.2

(*₹ in lakh*)

Sl. No.	Name of the Department	Name of the Scheme/Programme	Implementing Agency	Funds transferred during the year
1	Animal Husbandry, Livestock, Fisheries and Veterinary Services	Scheme for Infrastructure Development FPI	Sikkim Livestock Processing and Development Corporation Ltd.	18.93
2	Energy and Power	Grid Interactive Renewable Power MNRE	Sikkim Power Development Corporation Limited	139.70
		Information Publicity and Extension	Sikkim Renewal Energy Development Agency	0.06
		Off Grid DRPS	Sikkim Renewable Energy Development Agency	141.33
		Renewal Energy for Rural Applications for all Villages	Sikkim Renewal Energy Development Agency	28.30

Sl. No.	Name of the Department	Name of the Scheme/Programme	Implementing Agency	Funds transferred during the year
3	Forest, Environment and Wildlife Management	Environment Information Education and Awareness	State Environment Agency	64.83
		North East Council	State Forest Development Agency	4.75
		National Medicinal Plants Board	SMPB, Sikkim	1.00
		National Medicinal Plants Board	State Forest Development Agency	610.82
4	Gangtok Municipal Corporation	Technical Assistance from Department of International Development	Gangtok Municipal Corporation	125.00
5	Handicraft and Handloom Directorate	National Handloom Development Programme	Sikkim Handicrafts Development Corporation Ltd.	45.80
		NER – Textile Promotion Scheme	Sikkim Handicrafts Development Corporation Ltd.	147.72
		Technology Development Programme A158	Sikkim Handicrafts Development Corporation Ltd.	2.50
6	Tourism and Civil Aviation	Capacity Building for Service Provider	Sikkim Tourism Development Corporation Ltd.	18.82
		Capacity Building for Service Provider	Food Craft Institute, Kichudumra, Namchi, South Sikkim	8.14
		North Eastern Council	Sikkim Tourism Development Corporation Ltd.	5.75
TOTAL				**1,363.45**

Source: Central Plan Scheme Monitoring System of the GOI.

2.2 Planning and conduct of Audit

Audit process starts with the assessment of risks faced by various departments of Government based on expenditure incurred, criticality/complexity of activities, level of delegated financial powers, assessment of overall internal controls, etc.

After completion of audit of each unit on a test check basis, Inspection Reports containing audit findings are issued to the heads of the departments. The departments are to furnish replies to the audit findings within one month of receipt of the Inspection Reports. Whenever replies are received, audit findings are either settled based on reply/action taken or further action is required by the audited entities for compliance. Some of the important audit observations arising out of these Inspection Reports are processed for inclusion in the Audit Reports, which are submitted to the Governor of the State under Article 151 of the Constitution of India for laying on the table of the Legislature.

Test audits were conducted involving expenditure of ₹ 1,306.82 crore (including expenditure of ₹ 902.76 crore of previous years) of the State Government under Economic Sector. The details of year-wise break-up is given in **Appendix 2.2.1**. This Chapter contains two Performance Audits on 'Implementation of Re-structured Accelerated Power Development and Reforms Programme in Sikkim', and 'Horticulture Development in Sikkim' and six Compliance Audit Paragraphs as given below:

ENERGY AND POWER DEPARTMENT

2.3 Implementation of Re-structured Accelerated Power Development and Reforms Programme in Sikkim

In order to restore the commercial viability of the power distribution sector, Government of India (GoI) introduced (2000-01) the Accelerated Power Development Programme (APDP), which was later renamed (2002-03) as Accelerated Power Development and Reforms Programme (APDRP). The objectives of APDRP were to improve financial viability of State Power Utilities, reduce Aggregate Technical and Commercial (AT&C) losses and increase reliability and quality of power supply. The GoI continued (September 2008) 'Re-structured Accelerated Power Development and Reform Programme (R-APDRP) with revised terms and conditions. The R-APDRP scheme was to be implemented in two parts – Part-A involved establishment of an IT system capable of energy accounting, auditing and measuring AT&C loss and Part-B involved improvement of distribution infrastructure.

The Energy and Power Department (EPD), Government of Sikkim (GoS) is responsible for transmission and distribution of electricity in the State of Sikkim. Besides, the EPD also undertakes the power generation upto 25 MW while the generation of electricity above 25 MW in the State was being undertaken through Independent Power Projects (IPPs). The EPD selected two towns namely Gangtok and Upper Tadong for the implementation of the programme in the State of Sikkim which had AT&C loss of around 59 and 54 per cent before the implementation of the scheme. Part-A of the Scheme, which was approved (September 2009) had been completed (November 2013). The works relating to Part-B of the Scheme, which was approved (August 2010) by GoI were ongoing with completion percentage of around 45 per cent (October 2015).

The present audit was conducted to assess the performance of EPD in implementation of the R-APDRP scheme in the State during the period 2010-11 to 2014-15. The following are the highlights of the Audit:

Highlights

Due to delay in release of counterpart funding by GoS, Government of India (GoI) also stalled release of the balance funds (₹ 41.07 crore) towards its share of project funding causing adverse impact on implementation of the projects.

(Paragraph-2.3.7.1)

Detailed Project Reports (DPRs) prepared for Part-B project works were unrealistic due to adoption of unverified data of Aggregate Technical & Commercial (AT&C) losses. Further, the revisions made by EPD in the approved DPRs of the projects without approval of PFC/GoI was irregular.

(Paragraph-2.3.7.3)

Contrary to the provisions of the Work Manual, EPD did not plan for dismantling and disposal of the replaced assets leading to possibility of damages/theft of these assets and unnecessary occupation of the available space.

(Paragraph-2.3.7.5)

Due to failure in achieving the targeted level (15 *per cent*) of AT&C loss as well as non-completion of the Part-B project works within five years of sanctioning (August 2010) of the Scheme, EPD was not likely to get the benefit of conversion of GoI loan into grants under the scheme.

(Paragraph-2.3.9.4)

2.3.1 Introduction

The Energy and Power Department (EPD), Government of Sikkim (GoS) is responsible for transmission and distribution of electricity in the State of Sikkim. Besides, the power generation upto 25 MW was also being undertaken by EPD while generation of electricity above 25 MW in the State was being undertaken through Independent Power Projects (IPPs).

Background

The distribution system of the power sector constitutes the final link between the distribution utility and the consumer. Thus, the real challenge of reforms in the power sector lies in efficient management of the distribution system. As a mean for restoring the commercial viability of the power Distribution Sector, Government of India (GoI) introduced (2000-01) the Accelerated Power Development Programme (APDP), which was later renamed (2002-03) as Accelerated Power Development and Reforms Programme (APDRP). The objectives of APDRP were to improve financial viability of State Power Utilities, reduce Aggregate Technical and Commercial (AT&C) losses and increase reliability and quality of power supply. The GoI continued (September 2008) 'Re-structured Accelerated Power Development and Reform Programme (R-APDRP) with revised terms and conditions.

R-APDRP Scheme features

The R-APDRP introduced (September 2008) by the GoI envisaged establishment of reliable and automated systems for sustained collection of accurate base line data and adoption of Information Technology in the areas of energy accounting before taking up the regular distribution strengthening projects. EPD was responsible for the implementation of R-APDRP in the State of Sikkim.

The main objectives of R-APDRP were to:

- reduce Aggregate Technical & Commercial losses (AT&C losses);
- reduce outages and interruptions;
- increase consumer satisfaction.

In the case of Special Category States (viz. all North Eastern States, Sikkim, Uttarakhand, Himachal Pradesh and Jammu and Kashmir), R-APDRP was intended to cover the urban areas (towns and cities) with a population limit of 10,000 and more.

Projects under the present scheme were to be taken up in two parts as detailed below:

Part-A: Preparation of Base-line data for the project area covered. The work of preparation of Base-line data broadly included the works relating to Consumer Indexing, Global Information System (GIS) Mapping, Metering of Distribution Transformers and Feeders, Automatic Data Logging for all Distribution Transformers and Feeders and Supervisory Control and Data Acquisition (SCADA)/Distribution Management System (DMS)[1] and Asset Mapping[2]. Besides, the work also included compilation of information/data relating to adoption of IT applications for meter reading, billing and collection; energy accounting and auditing; Management Information System (MIS); redressal of consumer grievances; establishment of IT enabled consumer service centres, etc. Further, the base line data as well as the newly installed system was required to be verified by an independent agency appointed by the Ministry of Power (MoP).

Part-B: Renovation, modernisation and strengthening of 11 KV level substations, Transformers/Transformer Centres, Re-conductoring of lines at 11 KV level and below, Load Bifurcation, Feeder Separation, Load Balancing, 11 KV High Voltage Distribution System (HVDS), Aerial Bunched Conductoring in dense areas, replacement of electromagnetic energy meters with tamper proof electronic meters, installation of capacitor banks and mobile service centres, etc. In exceptional cases, where the sub-transmission system was weak, strengthening at 33 KV or 66 KV levels was also to be considered.

The EPD was simultaneously required to initiate the process of obtaining sanction and completing other formalities for execution of Part-A and Part-B projects. Part-B activities of the scheme were, however, likely to start 3-6 months after making arrangements of ring fencing[3] of the project area and verification of the starting figure of AT&C loss of the project area by an independent agency under Part-A of the R-APDRP.

Nodal Agency

The Power Finance Corporation (PFC) was appointed as the 'Nodal Agency' for operationalisation and implementation of R-APDRP programme, under the overall guidance of the Ministry of Power (MoP), Government of India (GoI).

Funding of the Scheme

Part-A Initially 100 *per cent* funds for the projects were to be provided by GoI in the form of interest bearing loan. The said loan along with interest was to be converted into grant after successful achievement of the system efficiency parameters and its verification by the independent agency appointed by the MoP through the nodal agency. Conversion of GoI loan to grant was, however, not allowed in case the R-APDRP projects were not

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1 *Only in project areas having a population over 4 lakh and annual input energy of 350 Million Unit.*

2 *Asset Mapping of the entire distribution network at and below the level of 11 KV transformers and shall include the Distribution Transformers and Feeders, Low Tension lines, poles and other distribution network equipment.*

3 *The project area is electrically ring fenced. Ring fencing is done to measure net input energy (difference of energy entering into and leaving) the project area through installation import/export meters at the boundary of the project area.*

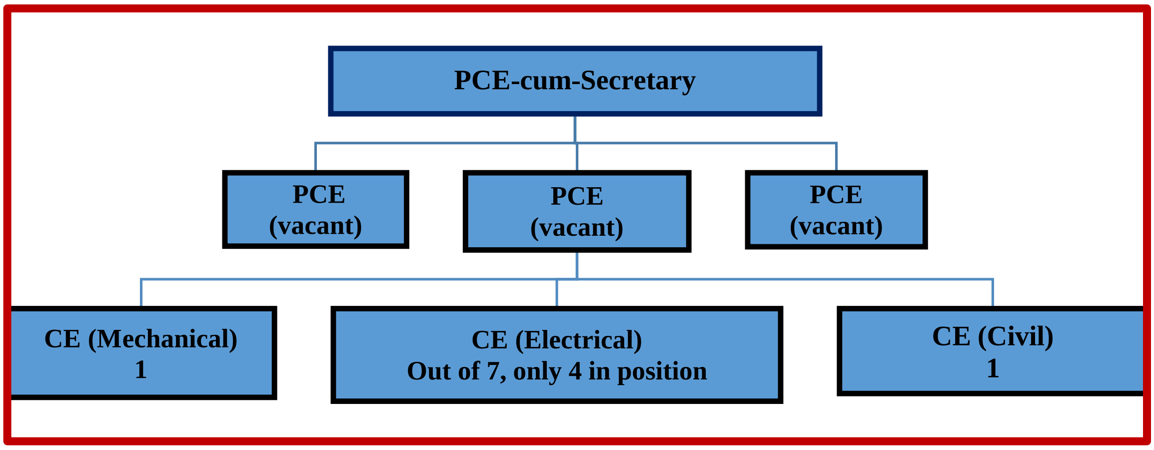
completed within three years from the date of sanctioning of the project. In such cases, the State utility concerned was bound to repay the entire loan amount along with the interest.

Part-B For all North Eastern States including Sikkim, the GoI was to provide loan to the extent of 90 *per cent* of the PFC approved project cost under Part-B of R-APDRP. The balance funds were, however, required to be arranged by EPD through own sources or through borrowings from Financial Institutions (FIs)[4]. To avail the benefit of conversion of GoI loan to grants, the State utility concerned was required to achieve the target of bringing down the AT&C loss to 15 *per cent* on sustainable basis, for five years besides completing the project within five years of its approval. The said benefit of conversion of loan into grant was to be provided in equal tranches every year for 5 years, starting one year after the year in which the base line data system of project area concerned was established and verified by the independent agency.

2.3.2 Organisational chart

The EPD was headed by the Principal Chief Engineer-cum-Secretary (PCE-cum-Secretary) who was assisted by PCEs, CEs and Additional CEs, etc. as shown in the **Chart-2.3.1**. The CE/Electrical (HQ) was appointed as the nodal officer for implementation of R-APDRP in the State:

Chart-2.3.1



The three posts of PCEs were created as part of restructuring of EPD, which was to be done under the power sector reforms. The said reforms envisaged for unbundling of EPD into separate companies for taking up the activities relating to generation, transmission and distribution of power in the State. Since GoS had not taken a decision on unbundling of EPD as envisaged under the power sector reforms, appointment to the above posts of PCEs was also pending.

2.3.3 Audit objectives

The objectives of the performance audit were to:

[4] *Namely PFC/Rural Electrification Corporation (REC)/multi-lateral institutions and/or own resources.*

- assess the adequacy of funding and effectiveness of Financial Management;
- efficiency and effectiveness in the implementation of projects;
- adequacy of monitoring; and
- achievement of scheme objectives.

2.3.4 Audit Criteria

The audit criteria adopted for assessing the achievement of the audit objectives were derived from the following sources:

- R-APDRP guidelines;
- Quadripartite agreement entered between GoS, PFC, EPD and MoP;
- Sikkim Works Manual 2009;
- Schedule of Rates approved by State PWD;
- Terms and conditions of work contracts;
- Detailed Project Reports for the scheme;
- Guidelines issued by GoI/nodal agency for R-APDRP (PFC)/GoS.

2.3.5 Audit Methodology

The Performance Audit (PA) commenced with the entry conference on 27 May 2015 with the PCE-cum-Secretary, EPD where audit objectives and criteria were explained. The methodology adopted for attaining the objectives with reference to audit criteria consisted of scrutiny of records at EPD Office, interaction with the officials of the audited entity, physical verification of completed/on-going projects jointly with the EPD officials, analysis of data with reference to audit criteria, raising of audit queries, discussion of audit findings with the officials of EPD and issue of draft PA report to EPD, Government of Sikkim (GoS) for comments. The findings of the Report were also discussed (2 November 2015) with the PCE-cum-Secretary of EPD and other officials of EPD in the exit conference. The formal replies of EPD as well as the views offered by the EPD in the 'exit conference' were considered while finalising this Report and the same appropriately included wherever necessary.

2.3.6 Scope of Audit

The present audit conducted during June 2015 to August 2015, covered the implementation of the scheme in the State during the period 2010-11 to 2014-15. The R-APDRP scheme in Sikkim had been implemented in two towns, viz. Gangtok and Upper Tadong. Under the two projects, Part-A works were completed (November 2013) while Part-B works under both the towns were ongoing (October 2015). Hence, the audit report covered the implementation of Part-A and Part-B works in these two towns.

2.3.7 Audit Findings

Audit findings relating to the implementation of R-APDRP in the State are discussed in the succeeding paragraphs:

Audit Objective-1: Funding and financial management

Funding

The funding mechanism for the scheme and the funds released there against are detailed in **Table 2.3.1**:

Table 2.3.1

(₹ in crore)

Particulars	Part A	Part B
PFC approved project cost	11.63	68.46
Project Cost after tendering	11.63	75.83
Funding mechanism	100 *per cent* funding by GoI	90 *per cent* of PFC approved project cost funded by GoI. The balance 10 *per cent* plus tender premium, taxes and DPR preparation cost to be funded by GoS.
Amount of GoI funding	11.63	61.61
Amount of GoS funding	Not applicable	14.22
Amount released by GoI till date	10.47	20.54
Amount released by GoS till date	Not applicable	5.00

2.3.7.1 Delay in release of counterpart funding by GoS

As per clause 5.2 of R-APDRP guidelines, 90 *per cent* of the Part-B project cost was to be provided by GoI and the balance funds were to be arranged by EPD/GoS from own sources or by availing borrowings from Financial Institutions (FIs)/multi-lateral institutions.

For implementation of R-APDRP scheme in Sikkim, EPD, GoS, MoP (GoI) and PFC signed (23 February 2010) a Quadripartite Agreement. As per Clause 5.3 of the agreement, EPD after adjusting the GoI funding to the project cost, should make necessary tie ups with PFC/REC/multi-lateral institutions and/or own resources for arrangements of the balance project funding within two months of sanction of the project.

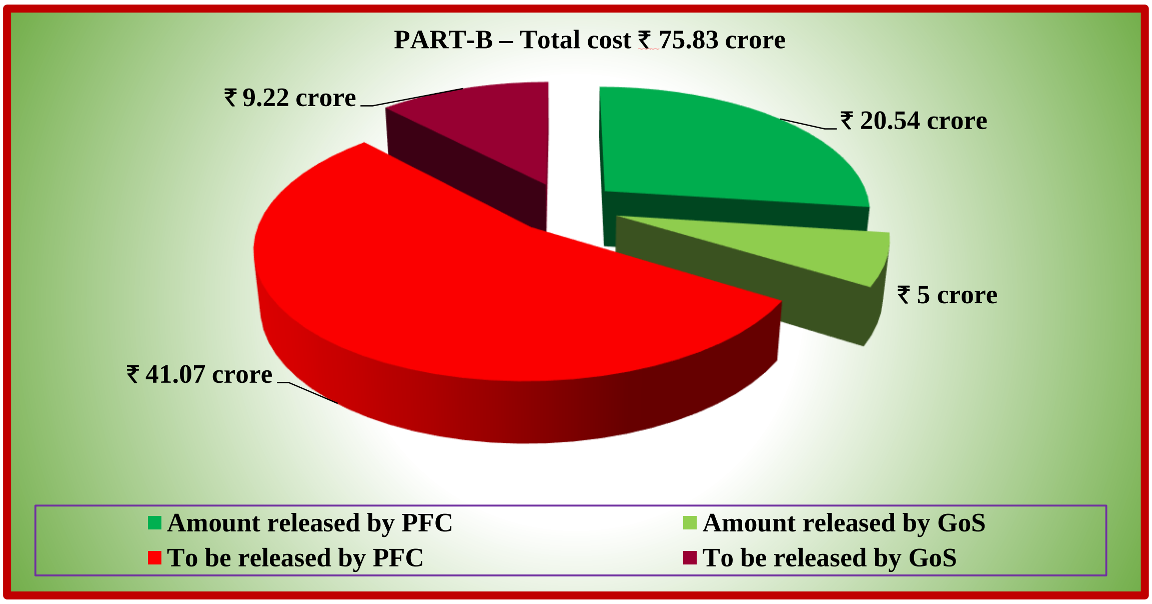
For implementation of Part-B projects under R-APDRP in two towns (Gangtok and Upper Tadong) of Sikkim, PFC approved a cost of ₹ 68.46 crore. Accordingly, GoI sanctioned (August 2010) ₹ 61.61 crore being its share of 90 *per cent* of the PFC approved project cost. After tendering, the project cost was revised to ₹ 75.83 crore. Hence, the balance amount of ₹ 14.22 crore[5] should have been arranged by EPD through own resources or through borrowings from FIs, multilateral institutions, etc. Instead of initiating immediate steps to arrange the balance project funding through own resources/borrowings from FIs, etc., EPD preferred to avail the counterpart funding from GoS through budgetary allocation. EPD, however, could obtain (September 2012) commitment from GoS in this regard after a lapse of 25 months from the date (August

5 *₹ 75.83 crore - ₹ 61.61 crore = ₹ 14.22 crore.*

2010) of GoI sanction. This had correspondingly delayed execution of R-APDRP projects in the State.

As per quadripartite agreement, 30 *per cent* of the PFC approved project costs were to be released by the GoI on sanction of project. Accordingly, GoI released (April 2011) ₹ 20.54 crore out of its share (₹ 61.61 crore) for implementation of R-APDRP in the State. The release of the balance amount of ₹ 41.07 crore from GoI was, however, depended on release of counterpart funding of ₹ 14.22 crore by GoS. During March 2014 to February 2015, EPD had received only ₹ 5 crore from GoS out of its committed share of ₹ 14.22 crore. The details of funding received by EPD from GoI/GoS against Part-B projects of R-APDRP are illustrated in **Chart-2.3.2** below:

Chart-2.3.2



As the EPD was yet (October 2015) to receive the balance counterpart funding of ₹ 9.22 crore from GoS, the release of the balance share of project funding (₹ 41.07 crore) from GoI had been stalled. As the entire amount of ₹ 25.54 crore received towards the Part B project works had been utilised for the works, non-release of balance funds of ₹ 50.29 crore by GoS (₹ 9.22 crore) and GoI (₹ 41.07 crore) had adversely affected the progress of Part-B project works.

The EPD stated (October 2015) that being a State Government Department, EPD could not raise funds/loans independently and it had to depend on GoS for the counterpart funding of the scheme.

However, it stands to reason that EPD as a Department of the State Government should actually have been prevailing upon GoS for timely providing of the counterpart funding so that balance project funding from GoI was available in time.

2.3.7.2 Additional interest burden due to diversion of borrowing to scheme works

To provide interest free advances to the Consultants[6] appointed in respect of Part-A and Part-B works of the Scheme, EPD borrowed funds from the State Government owned company, Sikkim Power Development Corporation Limited (SPDCL). The funds available at SPDCL had been borrowed from PFC at 13 *per cent* interest rate leading to avoidable interest burden on the GoS as detailed in **Table-2.3.2**:

Table 2.3.2

(₹ in lakh)

Date of borrowing	Amount borrowed	Date of repayment	Interest on[7] borrowing
NPTI			
23.03.2009	39.90	Not repaid as of October 2015	34.29
19.03.2010	13.93	Not repaid as on October 2015	10.14
WIPRO			
22.09.2009	7.72	13 October 2010	1.06
18.03.2010	23.16	13 October 2010	1.72
Total additional interest burden			**47.21**

The EPD accepted (October 2015) the facts and stated that the borrowed fund would be repaid on receipt of R-APDRP funds. Due to the diversion, there was an avoidable interest burden on GoS to the extent of ₹ 47.21 lakh.

Financial Management

A prudent financial management requires that all funds received are utilised economically, efficiently and effectively. The deficiencies noticed in the financial management of EPD in implementation of the scheme in Sikkim have been discussed in succeeding paragraphs:

2.3.7.3 DPRs prepared adopting unverified AT&C loss data

The GoI approved (19 September 2008) the R-APDRP as a Centrally Sponsored Scheme. Even before sanctioning of the scheme, however, EPD issued (6 September 2008) a work order in favour of National Power Training Institute (Consultants) for implementation of Part-A and Part-B works of the scheme. It was, however, observed that the Consultants were appointed by EPD without inviting any tenders in violation of the provisions of Sikkim Financial Rules. The consultancy fee for executing the above work was fixed at 1.6 *per cent* of the total cost of DPRs. The scope of the work order included the following:

1. Establishment of baseline data system.
2. Conducting study for improvement and strengthening/up-gradation/renovation/ augmentation of existing power distribution system and other related issues to fulfil the objective of bringing down technical and commercial losses to 15 *per cent.*

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6 *Namely M/s WIPRO, Kolkata and National Power Training Institute (NPTI), an autonomous body functioning under MoP, GoI.*

7 *Interest on borrowed funds calculated at 13 per cent simple interest per annum from the date of borrowing to date of repayment or 31 October 2015 whichever is earlier.*

3. Preparation of DPRs for each town separately.

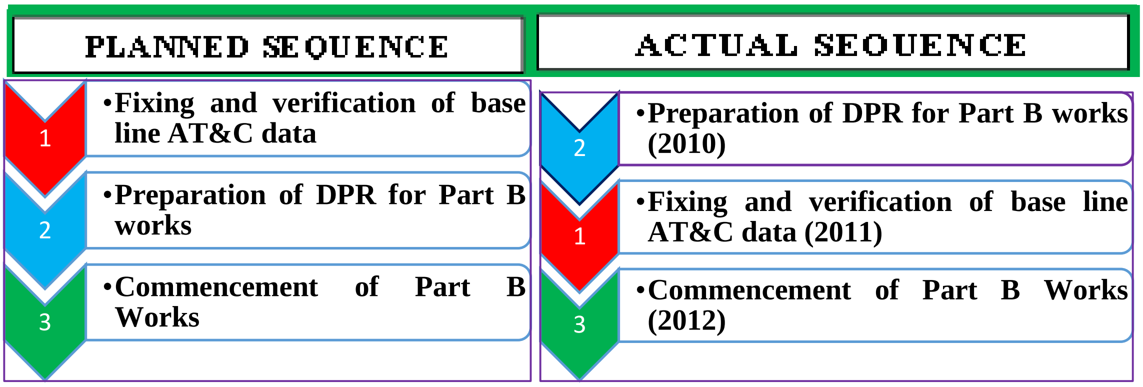
Subsequently, an agreement was entered (14 November 2008) between EPD and the consultants wherein the scope of the work was reduced to preparation of DPRs for Part-B works only.

It was observed that the guidelines (December 2008) of R-APDRP did not allow the State Utilities to incur consultancy charges on preparation of DPRs for Part-B works out of the GoI scheme funds. Hence, the EPD had to seek (November 2010) the approval of GoS for allocation of funds out of the State budget to meet the consultancy charges (₹ 1.23 crore) incurred by EPD which was approved (September 2013) by GoS.

In this connection, following observations are made:

➢ The planned sequence of work and the actual sequence of work are illustrated in **Chart-2.3.3**. The DPRs were prepared utilising base line data of Aggregate Technical & Commercial (AT&C) loss which had been calculated manually by the Consultants without ring fencing[8] and without being verified by an Independent Third Party Agency (ITPA). Ring fencing and verification of AT&C loss figure had been introduced in the R-APDRP scheme so that high AT&C loss feeders could be identified and works could be taken up after fixing priority in such areas. In the absence of ring fencing and verification of base-line data calculation, the DPR prepared by the Consultants had no realistic basis.

Chart 2.3.3



➢ It was further observed that the actual work orders for execution of Part-B works in respect of Upper Tadong and Gangtok towns were issued (September 2012) after more than 40 months and 27 months of preparation (April 2009/May 2010) of DPRs for the two towns respectively. In the meantime, some components of works involving aggregate cost of ₹ 12.68 crore had already been completed by EPD under North Eastern Council funded project and therefore, same were excluded from the work scope of the project. Besides, EPD had also added certain new items of work involving equivalent cost (₹ 12.68 crore) in the project scope on the plea that the requirements for these works emerged subsequent to

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8 *The project area is electrically ring fenced. Ring fencing is done to measure net input energy (difference of energy entering into and leaving) the project area through installation import/export meters at the boundary of the project area.*

preparation of DPRs and were necessary to fulfil the basic purpose of the scheme. EPD accordingly recompiled the DPR incorporating the above changes in the project scope without changing the overall cost estimates of the project. It was, however, observed that EPD had neither referred the above changes to the Consultants for their concurrence, nor had obtained formal approval of PFC/GoI for the revisions made in the DPR. In the absence of approval by PFC for the changes made in the DPR, it also could not be confirmed whether the said changes had any impact on the overall achievement of scheme objectives.

Thus, the DPRs prepared by EPD were unrealistic due to adoption of unverified data of AT&C losses. Further, the revisions made by EPD in the approved DPRs of the projects without approval of PFC/GoI was irregular.

The EPD stated (October 2015) that the Consultant, being a GoI undertaking, was aware of the R-APDRP scheme before its approval by the GoI and had approached EPD offering its consultancy service. The agreement was, however, entered only after the sanction of the scheme. As regards preparation of DPR before ring fencing and verification of base-line data, EPD accepted the audit finding and stated that the objective of the scheme had not been compromised. Regarding the changes made in the DPRs, it was stated that the gap in time and resultant change in site conditions necessitated revision in DPRs.

The fact, however, remained that to avail the intended benefits of the scheme, DPRs should have been prepared based on realistic and verified base-line data for achieving the intended benefits of the Scheme. Further, as per the Scheme conditions, it was mandatory for EPD to obtain approval of PFC/GoI for any revisions in the approved DPRs.

Audit Objective-2: Implementation of projects

Project Execution

Execution of the project finally determines the achievement of the scheme objectives. The deficiencies relating to execution of the project are discussed in the succeeding paragraphs:

2.3.7.4 Sub-contracting of works

A. EPD awarded (14 November 2008) the work of preparation of DPR for Part-B projects under R-APDRP to National Power Training Institute (NPTI) without following the tendering process. Clause 11.4 of the work contract stipulated that the agreement was personal to the parties to the agreement and that it should not be transferred or assigned wholly or in part by any party without the written consent of the other party.

It was, however, observed that contrary to the agreed terms of the contract, NPTI had assigned the contract to M/s Feedback Ventures Private Limited (sub-contractor) without obtaining the concurrence of EPD.

In reply, EPD stated (October 2015) that the sub-contracting of the work was not intimated to EPD and it was not aware of the same.

The contention of EPD regarding not being aware of the sub-contracting of the work is not tenable in view of the fact that in a meeting convened (16 March 2009) by EPD to discuss the status of preparation of DPR, the representatives of the sub-contractor were also present, as per the power point presentation made by NPTI to EPD.

B. The work of implementation of Part-B work pertaining to Upper Tadong was awarded (September 2012) to M/s Sinhal infrastructure (contractor). Clause 24 of the work contract stipulates that no part of the work should be assigned or sub-contracted by the contractor without the written approval of the Engineer-in-charge of EPD.

During the joint physical inspection (July 2015) of the works at Upper Tadong by the audit team and the officials of EPD, it was noticed that all the feeder panels that had been installed under the scheme, at 66/11 KV Switch Yard at 5th Mile and 11/11 KV Switch Yard at Deorali, had the name of the sub-contractor firm (M/s Pema Thupten Sherpa) instead of the Contractor (M/s Sinhal Infrastructure).

The fact remained that sub-contracting of the work without the consent of EPD could lead to quality issues apart from violation of the agreement.

In reply, EPD stated (October 2015) that the matter had been taken up with the Contractor.

The replies are silent about why periodical inspections of the work were not carried out so that sub-contracting of scheme could have been deducted.

2.3.7.5 Treatment of old and dismantled assets not specified

As per clause 8.21 to 8.24 of the Works Manual, the account of dismantled old structure/assets should be maintained separately and recorded in the measurement book. Such dismantled assets should either be utilised on other works as far as possible or disposed of through tendering or auction. The indisposed balances of old and dismantled should also be physically verified once a year.

Under the R-APDRP scheme, various overhead lines had been converted into underground lines. Contrary to the provisions of the Work Manual, however, it was noticed that the old/replaced overhead lines and poles had not been dismantled/disposed of even after installation of underground lines in their place. It was further noticed that the work contracts entered into for the above works were also silent on treatment of the old/replaced assets. The following images illustrate non-dismantling of old and replaced assets:

Image 2.3.1

Old unused overhead cables

Image 2.3.2

Old unused steel lettuce structures

Image 2.3.3

Old and unused Distribution transformer

In reply, EPD stated (October 2015) that due to fund constraints the dismantling of old structures could not be executed and some old structures were used for street lighting.

The reply is not tenable as non-dismantling of old assets could lead to possibility of damages/theft of assets and unnecessary occupation of space besides loss of potential revenue through disposal of said scrap.

2.3.8 Monitoring mechanism

Audit Objective-3: Monitoring

2.3.8.1 Distribution Reforms Committee not active

For the implementation of the R-APDRP scheme in Sikkim a quadripartite agreement was signed (February 2010) between EPD, MoP, GoS and PFC.

Clause 11.1(b) of the agreement stipulates that GoS should constitute a state level Distribution Reforms Committee (DRC) under the Chairmanship of the Chief Secretary/Principal Secretary/Secretary (Power/Energy) to monitor the implementation of projects under the R-APDRP scheme.

It was, however, noticed that though the DRC was constituted (2009) for monitoring of the project works, the same was non-functional since August 2009. In the absence of an active DRC, the monitoring of implementation of R-APDRP scheme was not effective leading to several deficiencies as discussed below:

A. Delay in completion of works

The works relating to Part A projects of R-APDRP were awarded (24 May 2011) to M/s Tata Consultancy Services (TCS) with scheduled date of completion as 23 May 2012. The works, however, could be completed (18 November 2013) after a delay of 18 months. Similarly, EPD awarded (14 September 2012) work contracts for implementation of Part-B works pertaining to Gangtok and Upper Tadong towns to Mr. Bishal Chamling and Sinhal Infrastructure respectively with scheduled date of completion as 13 September 2014. It was noticed that in spite of lapse of 14 months from the scheduled completion date (13 September 2014), the works were still pending for completion (October 2015).

The progress of work in respect of Part-B projects as of October 2015 is in **Table-2.3.3**:

Table 2.3.3

(₹ in crore)

Particulars	Gangtok	Upper Tadong	Total
Contract value	42.87	24.69	67.56
Value of Work completed[9]	13.15	17.34	30.49
Percentage of completion	30.67	70.23	45.13

As could be seen from the above, even after the lapse of more than one year from the schedule completion date (13 September 2014), only 45.13 *per cent* of Part-B works could be completed (October 2015). Due to delay in completion, there was a risk of not

9 *As measured and billed.*

availing the benefit of conversion of GoI loans into grants which could result in additional financial burden on the GoS in implementation of scheme.

In reply, EPD stated (October 2015) that the delay in completion of work was due to non-release of funds from GoS and consequential non-release of funds from PFC besides practical problems at site.

The reply is not tenable as existence of an effective DRC could have helped EPD in addressing the issues like delays in release of project funds and difficult site conditions, etc. through better co-ordination with GoS and effective monitoring of project works.

B. Non submission of Monthly Progress Report

As per Clause 13(f) of the scheme guidelines, EPD was required to submit the progress report on execution of project and utilisation of funds to PFC on monthly basis. It was, however, observed that EPD had not submitted any such report to PFC in respect of Part-B works of R-APDRP projects since beginning (September 2012). Non-submission of the monthly progress reports by EPD could have adverse effects on the monitoring of project works and utilisation of project funds at the level of PFC/GoI.

In reply, EPD stated (October 2015) that in the absence of requisition from PFC, EPD had not furnished any monthly progress report for Part-B works.

The reply is not tenable since EPD was required to submit the monthly progress reports as per the scheme guidelines without the insistence of PFC.

C. Non operation of separate bank accounts

As per clause 6.2 of quadripartite agreement, EPD was required to maintain separate bank accounts for effecting the financial transactions relating to Part-A and Part-B works of the scheme. The above provisions were aimed to ensure easy accounting, segregation and monitoring of expenditures incurred on two parts of the scheme. Contrary to the above stipulations, however, EPD had been operating all the financial transactions relating to Part-A and B works of the scheme through single bank account only. EPD informed (October 2015) that the matter of opening separate bank accounts for Part-A and Part-B works was taken up with GoS, but the same was not approved.

Thus, in absence of separate bank accounts for Part-A and Part-B works, the monitoring and control of EPD over the expenditure incurred on two works was difficult.

2.3.8.2 Ambiguity in scheme guidelines on payment of Consultancy charges

As per the scheme guidelines (December 2008), the towns and cities with population of more than 30,000 (more than 10,000 in case of Special Category States) only were eligible for implementation of the scheme. The scheme guidelines were, however, silent on the source of data to be considered for deciding on the population criteria in respect of towns or cities to be selected for implementation of the scheme.

Based on the available data on population of the cities/towns, EPD had identified total 13 towns for implementation of scheme. The work for preparation of DPRs for Part-A works was awarded (February 2009) to M/s Wipro at a cost of ₹ 78.63 lakh in respect of selected 13 towns.

Subsequently, PFC issued (May 2009) directions to select the towns/cities for scheme implementation based on the population data as per the 2001 census. Accordingly, EPD instructed (03 June 2009) M/s Wipro to consider only Gangtok and Upper Tadong for the above work as only these two towns fulfil the required population criteria as per the 2001 census. By that time, however, Wipro had already (May/June 2009) prepared the site readiness report and the DPR in respect of all 13 towns originally envisaged for implementing the scheme.

Audit observed that due to ambiguity of scheme guidelines regarding the source of population data to be considered for selection of towns/cities, EPD had to incur an avoidable expenditure of ₹ 66.53[10] lakh, being the consultancy fee paid for preparation of site readiness report and DPR for eleven ineligible towns.

In reply, EPD accepted (October 2015) the facts and confirmed that the guidelines did not specify the sourcing of population data.

The EPD, however, should have obtained necessary clarification from PFC regarding the source of population data to be considered for the selection of towns/cities for the scheme before awarding the work to the Consultants.

2.3.8.3 Absence of a functional State Electricity Regulatory Commission

One of the eligibility criteria for availing the GoI funding under R-APDRP scheme in any State was that the State Governments concerned must have constituted a State Electricity Regulatory Commission (SERC).

In exercise of the powers conferred by Section 17(1) of the Electricity Regulatory Commission Act 1988, the GoS issued (November 2003) notification constituting the Sikkim Electricity Regulatory Commission (SERC). It was, however, observed that although the SERC was constituted (November 2003), GoS appointed (April 2011) the Chairperson of the Commission after more than seven years of its formation. Thus, even after approval of Part-A and Part-B projects (September 2009/August 2010) under the Scheme, the SERC remained inactive for 18 and 7 months respectively in violation of the Scheme conditions.

2.3.9 Internal Control

2.3.9.1 Payment against uninstalled equipment

The work of implementation of Part-A project, involving IT related works, was awarded to M/s TCS Limited (TCS) at a contract value of ₹ 8.19 crore. The scope of work also included creation of a customer care centre (CCC) at a cost of ₹ 2.99 crore and involved installation of the following equipment:

[10] *₹ 78.63 lakh for 13 towns. Avoidable expenditure for 11 towns = ₹ 66.53 lakh (78.63/13 x 11).*

Table 2.3.4

(₹ in lakh)

Sl. No.	Particulars	Quantity	Total cost
1	Head set	5	0.24
2	Touch screen kiosk	1	1.61
3	Integrated Database Management System (IDMS) along with automatic token dispenser machine	1	1.50
4	Cash/cheque collection kiosk	2	5.90
TOTAL			**9.25**

During the joint physical verification of the site undertaken (06 August 2015) by audit and EPD officials, the above mentioned equipment were not found delivered/installed by TCS at CCC. It was, however, observed that while releasing payment against the running bills of TCS, these equipments were considered to be installed by EPD.

Thus, EPD made payment of ₹ 9.25 lakh against uninstalled equipment without verifying the project site leading to excess payment to TCS besides defeating the scheme objectives.

In reply, EPD accepted (October 2015) the audit finding and stated that any excess would be adjusted in the final bill of TCS.

The reply confirmed the poor/ineffective monitoring of project works by EPD.

2.3.9.2 Dedicated IT team not formed

Information Technology (IT) wing of EPD was assigned with the works of resolving connectivity issues of leased line from BSNL. It was, however, observed that no dedicated IT team was created for R-APDRP and thus EPD was dependent on the IT implementing agency of the scheme (viz. TCS) for attending/addressing IT related issues of R-APDRP. The contract of TCS was also to expire after five years of date of system becoming operational (November 2013).

In reply, EPD stated that being a Government Department, it could not appoint any IT related staff directly and some of the engineers had been trained and assigned with IT implementing agency.

The reply is not tenable as EPD could not rectify any problems connected with the IT system and had to solely rely on the IT implementing agency for attending IT related issues.

2.3.9.3 Works Manual provisions ignored leading to excess payments

As per Chapter 2.49 (1) and (3) of the Works Manual, the running account bills of the contractors should be verified for arithmetical accuracy and correctness of rates with reference to contract agreement. The above checks were, however, not exercised before release of payments against contractor's bill leading to several instances of excess payments as discussed below:

A. Excess payment in violation of contract terms

For execution of Part-B works, the contracts were awarded at a tender premium of 10 *per cent* above SOR. As per the contract agreement, said 10 *per cent* premium was to be computed on original work value put to tender without tax components, viz. VAT, environment cess and labour cess.

Scrutiny of running account bills of the Contractor revealed that EPD had paid 10 *per cent* tender premium on cost of work executed including VAT and cess components leading to excess payment to contractors to the tune of ₹ 34.08 lakh.

B. Labour cess not recovered

Section 3(1) and (2) of the Building and Other Construction Workers Welfare Cess Act, 1996 (BOCW) stipulate a cess at rates[11] as notified by the State Government(s) concerned. Further, the BOCW Cess Rules, 1998 stipulate that in case the building and other construction work pertains to Government or a Public Sector Undertaking, such Government or the Public Sector Undertaking concerned was required to deduct the cess amount from the bills of the contractors in respect of such works.

In violation of the above stipulations, the EPD did not recover the labour cess amounting to ₹ 13 lakh[12] from the Contractors bills and not remitted the same to the Labour Department leading to undue benefit to the Contractors of Part-B projects.

EPD stated (October 2015) that above issues were being looked into and if any excess payment had been made, the same would be recovered from the future bills of the Contractor's concerned.

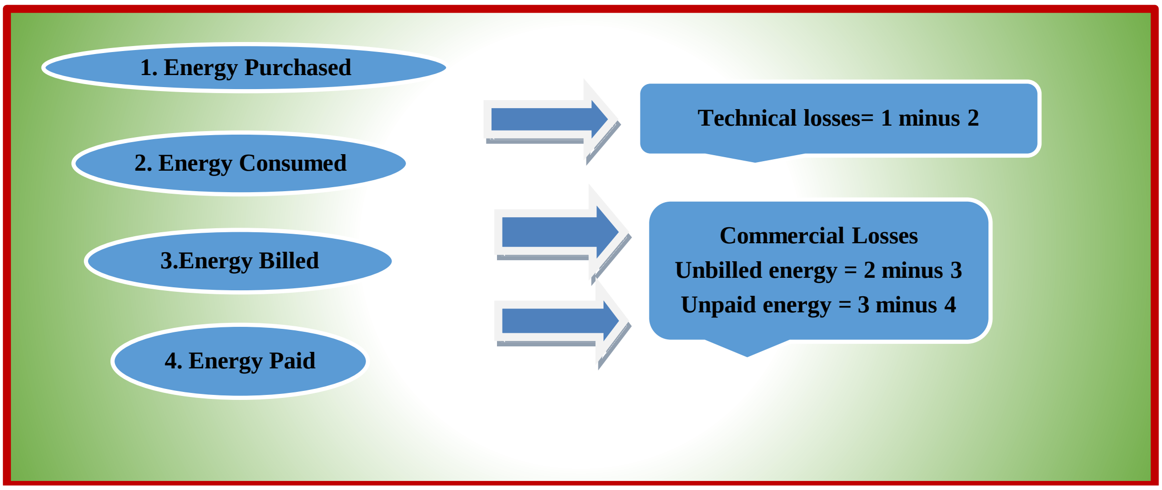
The fact, however, remained that non-compliance to the provisions of the works contract/BOCW Act led to undue benefit to the Contractors.

Audit Objective-4: Fulfilment of scheme objectives

Aggregate Technical and Commercial (AT&C) Loss

AT&C Loss is the sum total of technical and commercial losses and it included unrecovered dues against energy billed as illustrated in the chart below:

Chart-2.3.4 AT&C Loss components

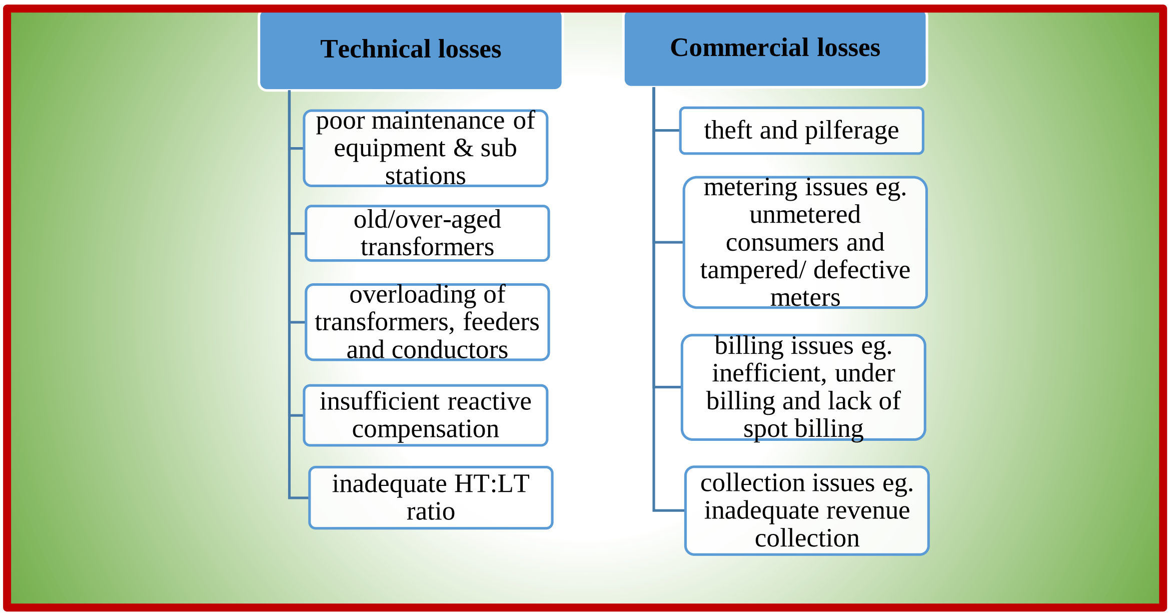


11 *Not exceeding two per cent and not less than one per cent.*

12 *₹ 11.93 lakh (Gangtok) and ₹ 1.08 lakh (Upper Tadong) worked out at the rate of 1 per cent (as notified (June 2009) by the State Government) on the cost of the works concerned.*

Reasons for AT&C losses

Chart-2.3.5 Reasons for AT&C Losses



2.3.9.4 Achievement against AT&C loss targets

The R-APDRP scheme was introduced in the State during 2008 and the work on the scheme began in 2011-12. One of the primary objectives of R-APDRP was to reduce the AT&C loss. To avail the benefit of conversion of GoI loan (90 *per cent* of approved project cost) into grants relating to Part-B works, EPD was required to complete the Part-B projects within five years of sanctioning (August 2010) the Scheme for the State as well as bring down the AT&C loss to the level of 15 *per cent* on sustainable basis continuously for a period of five years. As already discussed under Paragraph 2.3.8.1 *supra*, the Part-B works of the project could be completed to the extent of 45.13 *per cent* only and same were still ongoing (October 2015).

The summarised details of the targets envisaged under the scheme regarding AT&C loss and revenue realisation vis-à-vis the actual achievements of EPD there against as of 2014-15 have been given in **Table-2.3.5**.

Table 2.3.5

Particulars	Units	Base Year 2011-12		2014-15 with envisaged 15 *per cent* AT&C losses		2014-15 with actual AT&C losses	
		Gangtok	Upper Tadong	Gangtok	Upper Tadong	Gangtok	Upper Tadong
Total input (units)	MUs	66.00	41.00	66.00	41.00	66.00	41.00
AT&C losses	%	59.12	46.17	15	15	36.97	34.32
Total units for which revenue realised	MU	26.98	22.07	56.10	34.85	41.60	26.93
Average tariff	(₹ per unit)	3.57	3.77	3.57	3.77	3.57	3.77
Total realisation	(₹ in crore)	9.63	8.32	20.04	13.13	14.85	10.15

In this connection, following observations are made:

A. The conditions of the scheme for conversion of the loan into grants stipulated that if the utility achieves and sustains the 15 *per cent* AT&C loss continuously for a period of five years, after the grace period of one year, one fifth of the 90 *per cent* loan shall be converted into grant each year from the year 2012-13 (for Sikkim) onwards. As could be noticed from the table above, however, EPD could bring down the AT&C loss in respect of two towns to 36.97 (Gangtok) and 34.32 *per cent* (Upper Tadong) only for the year 2014-15 as against the envisaged target of 15 *per cent*. As the EPD did not complete the Part-A works till November 2013, the system generated data on AT&C losses was not available for 2012-13 and 2013-14.

B. The DPR for Part-B of the scheme envisaged increase in revenue realisation by ₹ 10.41 crore in the third year of implementation by 2014-15 in respect of Gangtok town. This could have been achieved by bringing down the level of AT&C loss figure to 15 *per cent* (2014-15). As against this, however, the actual increase in revenue realisation during 2014-15 was only ₹ 5.22 crore (50 *per cent*). Similarly, in Upper Tadong, as against the envisaged increase of ₹ 4.81 crore in revenue realisation during 2010-11 to 2014-15, EPD could achieve the increase of ₹ 1.83 crore (38 *per cent*) in revenue realisation during 2014-15.

Thus, due to non-completion of the project works within five years of sanctioning (August 2010) of the scheme for the State as well as failure in achieving the targeted level of AT&C loss during the first five years of scheme implementation, EPD was not likely to get the benefit of conversion of GoI loan into grants.

During the exit conference (November 2015), EPD stated, that it was making efforts for improving the revenue realisation and bringing down the AT&C losses as envisaged in the scheme. It was further stated that there had been a significant reduction in AT&C loss from the base line year to 2014-15.

The reply is not tenable as although the AT&C loss figure had been reduced, the scheme objective of achieving 15 *per cent* AT&C loss figure had not been achieved by EPD. Besides, EPD had also failed to complete the Part-B works within five years of sanctioning (August 2010) of the Scheme, which was also one of the pre-conditions to avail the benefits of GoI grants. Hence, possibility of conversion of loan into grants stands remote.

Billing Efficiency

2.3.9.5 Short levy of surcharge

As per the electricity Tariff order, the consumers with outstanding dues were liable to pay surcharge at the rate of 10 *per cent* (LT consumers) or 15 *per cent* (HT consumers) on the amount of dues pending as on 31 March every year. Audit observed short levy of surcharge aggregating to ₹ 19.73 lakh in two sub-divisions as detailed below:

i) Deorali sub-division

Considering two months for the billing process, consumers should normally be levied surcharge on the balance outstanding as on 31 March excluding the dues pertaining to the months of February and March. It was, however, observed that while calculating the amount of surcharge for 2014-15 in Deorali Sub-Division, EPD had wrongly excluded the dues pertaining to three months instead of two months from the outstanding closing balance as on 31 March 2015. As a result, there was short levy of surcharge to the tune of ₹ 11.16 lakh in respect of consumers under High Tension Supply and Bulk Supply categories.

EPD accepted (October 2015) the audit finding and stated that it would work towards better billing efficiency.

ii) Gangtok Division

Similarly, in Gangtok sub-division, Audit noticed short levy of surcharges due to adoption of incorrect closing balances and wrong calculation. The Sub-division levied in aggregate ₹ 5.58 lakh as surcharge from four consumers instead of levying the correct amount of ₹ 14.15 lakh leading to short levy of surcharge by ₹ 8.57 lakh.

Further, the actual outstanding dues[13] as on 31 December 2014 in respect of the above four consumers was ₹ 1.17 crore, however, the dues reflected in the demand register was only ₹ 1.06 crore which showed a difference of ₹ 11.05 lakh. This may be verified and rectified in the Demand Register.

In reply, EPD stated (October 2015) that the matter would be examined by the revenue division.

Collection Efficiency

2.3.9.6 No disconnection in cases of non-payment of dues

As per the conditions of supply contained in the Tariff orders, if the consumer fails to pay the bills raised within the due date, the EPD is empowered to disconnect the power supply. It was, however, observed that the Department continued power supply to the defaulted consumers even though no amount was paid against the arrears and subsequent bills. Audit observed that during the period of five years (2010-11 to 2014-15) covered under the Report, there was no instance of disconnection of power supply to consumers on account of delay or non-payment of bills. The Department needs to strictly enforce the payment terms and conditions as contained in the Tariff order and take appropriate action for the recovery of dues from defaulting consumers.

EPD stated that (October 2015) steps had been initiated for disconnection of power supply to defaulters.

EPD should put an effective system in place for timely recovery of dues and disconnection of supply to defaulters so as to improve collection efficiency and financial health of the Department.

[13] *Opening balance + surcharge + bills raised less realisation during April 2014 to December 2014.*

Consumer Metering

The scheme envisaged provision of tamper-free electronic meters to all consumers in the scheme area. In this connection, the following observation is made:

2.3.9.7 Slow progress in the installation of Electronic Meters

To check meter tampering and get accuracy in reading, EPD had proposed to replace the old electro-mechanical meters with new electronic meters under R-APDRP. Accordingly, M/s Unicorn Enterprises was issued supply order for supply of 13,396 electronic meters which had been delivered (September 2013). The work of replacement of old meters with new electronic meters was taken up (November 2013) by EPD departmentally. It was, however, observed that even after a lapse of 24 months, only 28 *per cent* of old consumer meters could be replaced by EPD in Upper Tadong (October 2015). The data regarding installation of electronic meters was not furnished in respect of Gangtok.

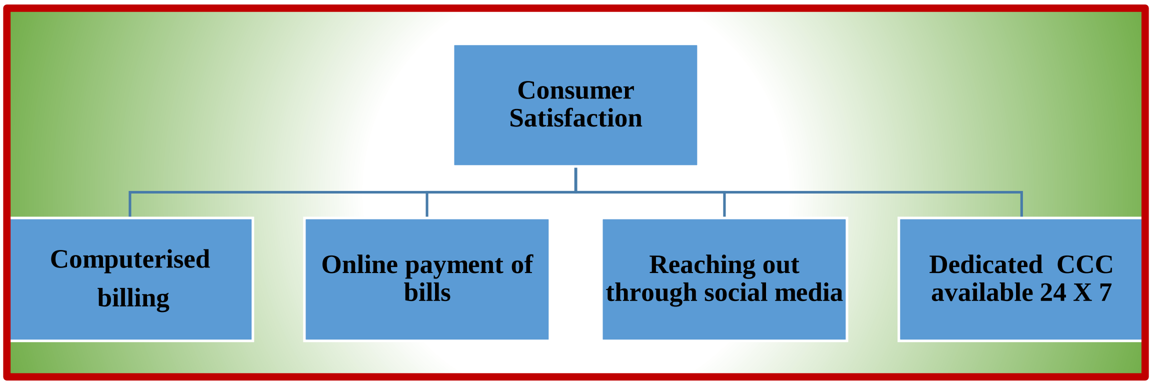
EPD stated (October 2015) that the replacement of old meters had been done very cautiously to avoid any public outrage and assured that the same would be completed by December 2015.

The reply is not tenable as the scheme guidelines stipulates that the utilities had to award all R-APDRP projects on turnkey basis in order to maintain a rigid completion schedule and single point responsibility. Due to taking up the metering work departmentally EPD could not maintain a rigid completion schedule thereby adversely affecting AT&C loss.

Consumer satisfaction

Sikkim is a power surplus State and the EPD has taken following initiatives to increase the consumer satisfaction in areas covered under the R-APDRP.

Chart-2.3.6 Consumers satisfaction activities undertaken by EPD



The R-APDRP scheme envisaged the establishment of a Customer Care Centre (CCC) under the Part-A projects for resolving billing complaints, complaints regarding power shut down and providing relevant information for all customers of EPD residing at Gangtok and Upper Tadong. In this connection, the following observation is made:

2.3.9.8 Defeat of intended purpose of CCC created at a cost of ₹ 2.99 crore

As of September 2015, the State had only one full-fledged Customer Care Centre (CCC) which commenced functioning from November 2013. The CCC was created at a cost of

₹ 2.99 crore under Part A of R-APDRP scheme to cater to the customers of Gangtok and Upper Tadong.

The function of the CCC was to receive complaints from consumers and pass on the same to the maintenance division concerned for rectification. On receipt of a complaint, the complaint would be recorded in the call logger and complaint/ docket number generated. Subsequently, the details of the complaint were also to be provided to the complainant for future reference. This complaint number would be closed on rectification of the complaint.

Audit observed that during the period from November 2013 to 30 October 2015, the CCC had received only 113 calls. It was further noticed that from March 2015 onwards, the CCC had not been able to generate any docket numbers for the complaints lodged with CCC. Besides, the information provided by CCC to the customers was very limited mainly due to deficiency in the system to properly interact within the modules.

In reply, EPD stated (October 2015) that the operations of CCC had been widely publicised in local dailies along with toll free numbers for registering complaints. The issue of non-generation of docket numbers and absence of interaction within modules had been taken up with the IT implementing agency of the project.

The reply is not tenable as even after the lapse of more than two years after the CCC became operational, the functioning of the CCC was not effective due to persisting deficiencies in the software.

2.3.10 Conclusion

- ***Due to delay in release of counterpart funding by Government of Sikkim (GoS), Government of India (GoI) also stalled further release of its share of project funding causing adverse impact on implementation of the Scheme in the State. Detailed Project Reports (DPRs) prepared for Part-B project works were unrealistic due to adoption of unverified data of Aggregate Technical & Commercial (AT&C) losses. Further, EPD made changes in the approved DPRs of the project without the approval of the Scheme nodal agency, viz. Power Finance Corporation Limited (PFC)/GoI in violation to the Scheme conditions.***
- ***The implementation of the project by EPD was found to be deficient. Instances of sub-contracting of project works by the contractors were noticed in violation to the contract terms. Further, contrary to the provisions of the Work Manual, EPD did not plan for dismantling and disposal of the replaced assets leading to possibility of damages/theft of these assets and unnecessary occupation of the available space.***
- ***The monitoring mechanism of EPD for monitoring of the project works was not effective due to absence of an active State Level Distribution Reforms Committee (DRC) as well as non-submission of Monthly Progress Reports to the PFC/GoI. As a result, the Part-A works of the project were completed with delays of 18 months while the Part-B works could be completed to the extent of***

45.13 per cent only even after lapse of more than one year of the scheduled completion date (September 2014).

- ***As against the envisaged target of reducing the AT&C losses to the level of 15 per cent for a continuous period of five years, EPD could bring down the AT&C losses in respect of two cities (Gangtok and Upper Tadong towns) covered under the scheme to 36.97 and 34.32 per cent respectively during the first five years of scheme implementation. Due to failure in achieving the targeted level of AT&C loss as well as non-completion of the Part-B project works within five years of sanctioning (August 2010) of the Scheme, EPD was not likely to get the benefit of conversion of GoI loan into grants under the scheme. The progress of installation of consumer electronic meters by EPD was also slow due to taking up the work departmentally.***

2.3.11 Recommendation

- **EPD needed to effectively pursue with GoS for release of counterpart funding well in time so as to implement the scheme without further delay.**
- **Strict compliance to scheme guidelines as well as the contract terms may be ensured for efficient and effective implementation of project. EPD needed to take appropriate action on any deviations noticed on part of the contractors to the agreed terms of the work contract.**
- **An active State Level Distribution Reforms Committee needed to be in place to ensure effective monitoring of project works and achievement of scheme objectives as well as safeguarding of assets. EPD should also ensure regular submission of monthly progress reports to Power Finance Corporation/GoI for centralised monitoring of the work progress and utilisation of scheme funds.**

HORTICULTURE AND CASH CROP DEVELOPMENT DEPARTMENT

2.4 Horticulture Development in Sikkim

The Horticulture and Cash Crop Development Department was mandated for development of horticulture in the State. The Department mainly implemented (i) Horticulture Mission for North Eastern and Himalayan States, (ii) National bamboo Mission, (iii) National Mission for Micro Irrigation, and (iv) National Mission for Medicinal plants. Performance Audit for the period 2010-15 disclosed that the Department had achieved the target in full except during 2014-15. In overall terms, area under cultivation, production and productivity of various crops registered marginal *increase during 2010-15. The Department had to its credit a number of success stories in establishing the livelihood of some of the farmers in floriculture, vegetable, etc. paving way for economic upliftment of the farmers. The beneficiary survey of the farmers by Audit disclosed that the farmers were satisfied by the support and assistance extended by the Department. The farmers however, were dependent upon the Department for continuance in farming.*

Regarding planning we noticed during the course of the Performance Audit that the Perspective Plan was not available in the Department to provide strategic road map for development. Annual Action Plans did not accompany project report of each district and assessment of export potential and detailed quantification of all inputs and outputs. The Department had not constituted a Technical Support Group for rendering expert advice towards implementation of horticulture programmes, IT Policy was neither adopted nor website of the Department launched in a full-fledged manner for dissemination of information to public. The Department had not initiated action to conduct Horticulture census to obtain accurate, reliable and relevant horticulture database for integration of markets.

Programme implementation of Horticulture Mission for North East and Himalayan States (HMNEH) revealed that three Centers of Excellences (COEs), with the objective to grow more from less areas, were established in farmers' field instead of being set up on Government farm as envisaged. In case of National Mission on Micro Irrigation, although the Department had achieved physical target of 43.63 ha during 2010-15 the perspective plan to provide road map for micro irrigation technology was not formulated.

Under National Mission on Medicinal Plants (NMMP), though the Department stated to have carried out base line survey and feasibility studies to determine potential and demand the survey report, etc. was not made available to Audit. The Department had neither maintained details of seedling grown and supplied by each of the nurseries nor initiated adequate measures to ensure end to end approach, especially post-harvest management to enable the farmers to sell their produce.

Although the monitoring of the schemes/programmes were carried out by departmental officers, the monitoring schedules were not drawn up and efforts were therefore adhoc and erratic. The monitoring reports were not maintained for verification and initiating corrective actions, if any. Evaluation studies of various programmes were not attempted by the Department through independent agencies to assess the extent of success of the programme.

Highlights

The Perspective Plan of the Department was not available to provide strategic road map for development and the Annual Action Plans did not accompany project report of each district and assessment of export potential and detailed quantification of all inputs and outputs.

(Paragraph-2.4.7.1 and 2.4.7.2)

Integrated Floriculture Pack House constructed at a cost of ₹ 1.52 crore in May 2008 was not yielding value for money towards the project objective of collecting, sorting, grading, preserving, weighing and packing cut flowers for export.

(Paragraph-2.4.9.4)

The Department had not initiated action towards post-harvest collection, preservation-cum-storage, processing and marketing of bamboo crop and bamboo based products to provide stable and regular farm income to the farmers, provide employment and livelihood security to artisans, and others despite incurring ₹ 26.29 crore towards plantation and maintenance of bamboo crop during 2006-15.

(Paragraph-2.4.10.1)

The Department had neither drawn up inspection/monitoring schedules nor maintained these reports for verification and initiating corrective actions. Similarly, evaluation studies of various programmes through independent agencies to assess the extent of success of the programme were not initiated by the Department.

(Paragraph-2.4.13)

2.4.1 Introduction

Sikkim is basically an agrarian State with 64 *per cent* people dependent on Agriculture and allied activities. The State had limited area of operational holdings of about 1,00,000 hectare for agricultural/horticultural crops and the net cultivated area was around 70,000 hectare, agriculture/horticulture sector contributing approximately 15 *per cent* of total GSDP. The State Government had accorded priority to the horticulture sector with a view to attain higher levels of rural prosperity by adopting the policy of growth with sustainability for higher income generation to farming community. The concentration was on securing maximum production of horticulture crops and managing primary agro-resources like soil, water and bio-diversity. Large cardamom, ginger and turmeric are the major spice crops, while mandarin orange, guava, mango, banana are the principal fruits grown in the State. Sikkim is also a paradise for flowers. Gladioli, anthuriums, lilliums, primulas, rhododendrons, orchids as well as many other floral species thrive here. The Department of Horticulture and Cash Crop Development (HCCDD) is involved in motivating and providing technical guidance to local farmers and taking forward the mission of the Government towards Horticulture Development in Sikkim. In the process, the Department had initiated steps to strengthen existing horticulture infrastructure, availability of inputs and technological know-how to the farmers.

2.4.2 Scope of audit

Performance Audit on Horticulture Development in Sikkim, covering a period of five years (2010-15) was conducted during July-August 2015 through test check of records in Head Office of HCCDD and all four districts covering 30 *per cent* of the expenditure. 12 Blocks were selected on two stage sampling basis for audit scrutiny. In the first stage, all the blocks were categorised district-wise and in the second stage 12 blocks (out of 31) (indicating 40 *per cent*) were selected covering each district on simple random sampling basis without replacement (SRSWOR). During audit various activities relating to the schemes, *viz.* (i) Horticulture Mission for North East and Himalayan States (HMNEH), (ii) National Bamboo Mission (NBM), (iii) National Mission for Medicinal Plants (NMMP) and (iv) National Mission for Micro Irrigation (NMMI) were examined. The records relating to Food Security and Agriculture Department were also examined in West and East districts to assess its synergy with HCCDD and to verify overlapping, if any, in implementation of schemes.

2.4.3 Audit objectives

The Performance Audit was conducted with the objective of assessing whether:

- Overall planning for Horticulture Development in the State was adequate, effective and participative;
- Financial management was economic and efficient;
- Programme management was efficient and effective;
- The various schemes, programmes and plans had the desired impact; and
- Monitoring, evaluation and internal control mechanism were adequate and effective.

2.4.4 Audit criteria

Audit findings were benchmarked against the criteria in the following documents:

- National Horticulture Policy;
- Sikkim Horticulture Plan, Annual Reports of the Department;
- Scheme Guidelines issued by the Government of India/State Government;
- Guidelines/instructions issued by the Ministry of Agriculture and Co-operation, Department of Horticulture, GoI/State Government;
- Directions issued by the Secretary, HCCDD, Government of Sikkim
- Sikkim Financial Rules;
- Schedule of Rates, Sikkim Public Works Department Code and Manual; and
- Prescribed monitoring mechanism.

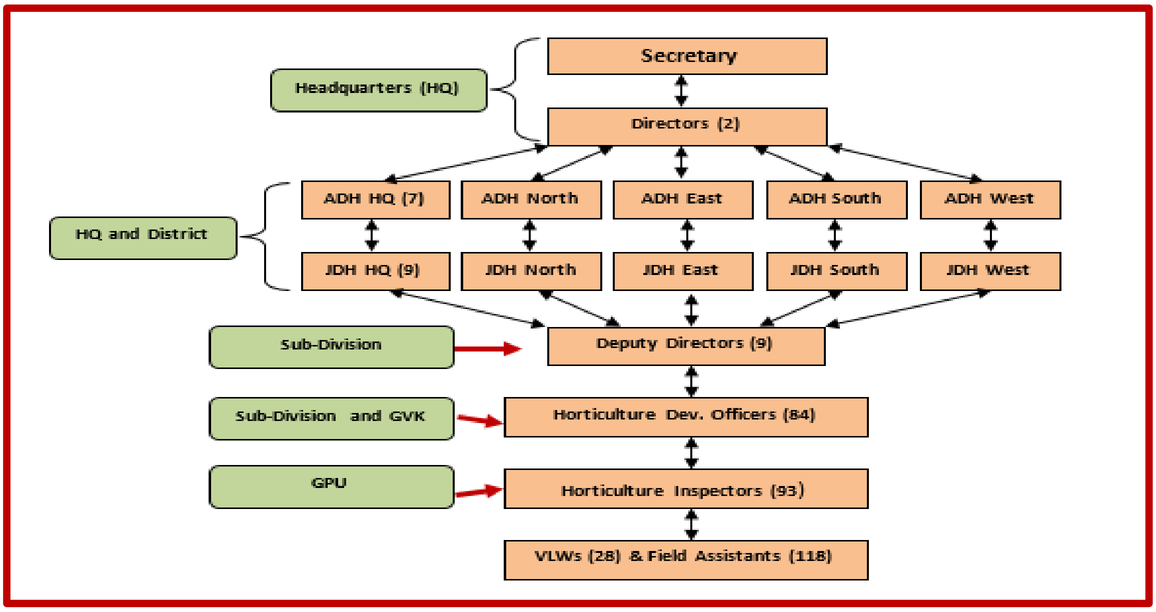
2.4.5 Audit methodology

The Performance Audit commenced with entry conference (1 July 2015) with the HCCDD wherein audit objectives, scope of audit, audit methodology and audit criteria were explained. Audit process included issue of requisitions for information/data/records, scrutiny of records and analysis of information/data followed by framing of audit observations. Physical verification of government farms and farmers field was conducted. Beneficiary survey involving 100 farmers spreading over all four districts was also carried out to ascertain the extent of support received from the Department and also the constraints encountered by them. The report was prepared after incorporating replies tendered by the Department during the course of Performance Audit. The audit findings were discussed in an Exit Conference (October 2015) with the Secretary, HCCDD and the report was finalised duly taking into consideration the views of the Department.

2.4.6 Organisational set-up

The Department of Horticulture and Cash Crop Development (HCCDD) is headed by the Secretary, who is assisted by Directors (2), Additional Directors (11) and Joint Directors (13) in districts who in turn are assisted by Deputy Directors, Horticulture Development Officers and Horticulture Inspectors as shown in the chart below:

Chart 2.4.1



Audit findings

The results of Audit are enumerated in succeeding paragraphs:

2.4.7 Planning

Audit Objective-1:
To assess whether overall planning for horticulture development in the State was adequate and effective.

The Department undertook various activities under different schemes to expand the area under coverage, enhance production and improve upon productivity. These *inter-alia* included creation of water sources, distribution of seeds/seedlings to farmers, technology transfer through training and demonstration, infrastructural and marketing support. Adequate planning was therefore a prerequisite for achievement of scheme objectives. The observations in this regard are detailed below:

2.4.7.1 Perspective Plan

Operational Guidelines of Mission for Integrated Development of Horticulture (MIDH) (Para-4.8(a) and 5.1) stipulate that State level agency shall prepare Strategic/Perspective and annual State Level Action Plan (SLAP) in consonance with Mission's goals and objectives in close co-ordination with Technical Support Group (TSG), State Agriculture Universities (SAUs), ICAR institutes and oversee its implementation. The plan should invariably contain information on geography and climate, potential of horticulture development, availability of land, analysis of strength weaknesses opportunities and challenges (SWOC), strategy for development and plan of action proposed to be taken to achieve goals in each district of the State. The document should focus on crops having comparative advantages and natural potential for development in the State, adoption of cluster approach for production and linking with available infrastructure, post-harvest management, processing, marketing and export.

The Department stated (July 2015) that Perspective Plan and strategic road map was prepared during 1995-96 by Agriculture Finance Corporation India Limited and updated through regular modification in the form of vision documents. This was obviously only of vintage value. However, a current Perspective Plan was not made available to audit and its existence was unlikely and definitely unknown to most stakeholders. Audit could not therefore, obtain assurance that strategies adopted by State Horticulture Mission (SHM) were in accordance with the main objectives cited in the perspective plan and as per the strategic road map.

2.4.7.2 Annual Action Plan

The Operational Guideline of HMNEH required the Department to draw up Annual Action Plan (AAP) after approval from the State Level Steering Committee (SLSC). The AAP should incorporate requirements under various schemes for execution and be accompanied by project reports of each district. However, audit observed that:

- The Department had prepared an AAP for submission to GOI but it was not accompanied with project report of each district as required under the guideline. It was also devoid of assessment of export potential and detailed quantification of all inputs and outputs as prescribed in the guidelines.
- Further, the AAP was not supported by data/write-up on outcome of past interventions, covering the details of area expansion, water resource development, integrated nutrient management (INM)/integrated pest management (IPM) and Organic farming as required under the guideline. Therefore, it was sketchy, lacked comprehensive analysis and was not result oriented.

The Department stated (October 2015) that efforts would be initiated to improve the AAP duly incorporating all details on quantification of inputs, impacts of past interventions, lessons learnt and future strategy.

2.4.7.3 Constitution of Technical Support Group at State level

The Operational Guideline of HMNEH stipulated constitution of Technical Support Group (TSG) through engaging technical persons and experts to advice, formulate, appraise and to monitor the implementation of programmes. The technical persons and experts should comprise of Mission - I (Research), II (Production and Productivity improvement), III (Post-Harvest Management, Marketing and Export) and IV (Food Processing Unit).

It was noticed that the Department did not constitute TSG. As a result, the Department was devoid of expert advice from TSG. The Department stated (July 2015) that experts having technical proficiency were engaged as and when required for specific period and maximum benefits derived from their experience. However, verification in Audit revealed that details of such engagements and opinion and advice rendered, if any, by the experts were neither documented by the Department nor was there any indication to establish that those advices were put to use.

The Department stated (October 2015) that TSG at the State level would be constituted during next year (2016-17).

2.4.7.4 Constitution of District Mission Committee

The Operational Guidelines (Para-4.9) for MIDH for 12th Plan period stipulated constitution of District Mission Committee (DMC) for carrying forward the objectives of the Mission for project formulation, implementation and monitoring. The guidelines also stipulated (Para-4.10) involvement of the District Planning Committee and Panchayati Raj Institutions in implementation of the programme.

Audit found that DMC was constituted in 2010-11 in three (Out of 4) districts (West, South and East) consisting of members from various departments of district with District Collector as Chairperson. However, notification depicting constitution of DMC was not published. The details of meetings of the Committee, its minutes, etc. were not available on record. Therefore, Audit could not vouch for either the existence or effectiveness of functioning of the Committee.

The Department assured (October 2015) that efforts would be initiated to improve the functioning of the Committee.

2.4.7.5 e-Governance not brought in

HMNEH, an important scheme for Horticulture development under implementation in the State envisaged for adoption of Information Technology (IT) for dissemination of horticulture related information through website by establishing hyper linkages with other Departments, Ministries and Organisations. Audit noticed that the Department had neither adopted IT Policy nor launched its website in full-fledged manner for dissemination of information to public as envisaged in the Mission guidelines.

The Department stated (August 2015) that the task of designing the website on content management based concept had been taken up (October 2014) by Department of Information Technology. The approval of the Department would be given after final presentation of web site by CRTI - an autonomous body under IT Department, Government of Sikkim. This indicated that very low priority was being accorded to this important activity.

2.4.7.6 Horticulture census not initiated

In view of globalisation and integration of markets and increasing demand for accurate, reliable and timely horticulture database, the Department of Agriculture and Co-operation (DAC), GOI instructed (August 2009) State Directorate of Horticulture for sending proposal for financial support for conducting Horticulture Census.

Audit noticed that the Department had neither sent any proposal to DAC, GOI for financial support nor initiated any action to conduct Horticulture census as of March 2015. As a result, HCCDD was devoid of accurate, reliable and relevant horticulture database.

The Department stated (October 2015) that Agency engaged in conducting Agriculture census would be entrusted with the census of Horticulture as well.

2.4.7.7 Base line survey

The Operational Guideline (Para-7.2) for MIDH stipulated for carrying out base line survey. The survey would *inter-alia* include data/information on area, production and productivity.

Two (out of 4) districts (East and South districts) claimed to have conducted base line survey in compliance with MIDH guidelines. However, copies of survey were not made available to Audit. Therefore, the existence of data/information on area, production and productivity at State level could not be verified in Audit.

The Department stated (October 2015) that provision has been kept for baseline survey during 2015-16.

2.4.8 Financial management

Audit Objective-2:
To assess whether financial management was economic and efficient.

2.4.8.1 Budget provision, expenditure and surrenders

According to Sikkim Financial Rules (Rules 75 and 76), the budget of the Department was to be prepared based on inputs received from the field offices. It was however, noted that the budget was prepared centrally in Head Office of HCCDD without obtaining inputs from the field offices. It was noticed in Audit that Non-Plan budget was prepared on the basis of anticipated expenditure based on the instructions issued by the State Finance Department. The Plan budget was prepared based on the lump-sum amount allocated by Development, Planning, Economic Reforms and North Eastern Council

Affairs Department (DPNERCAD). In case of Centrally Sponsored Schemes, budget provision was made under supplementary budget after funds were released by GOI.

The budgetary allocation and expenditure there against during 2010-15 was as under:

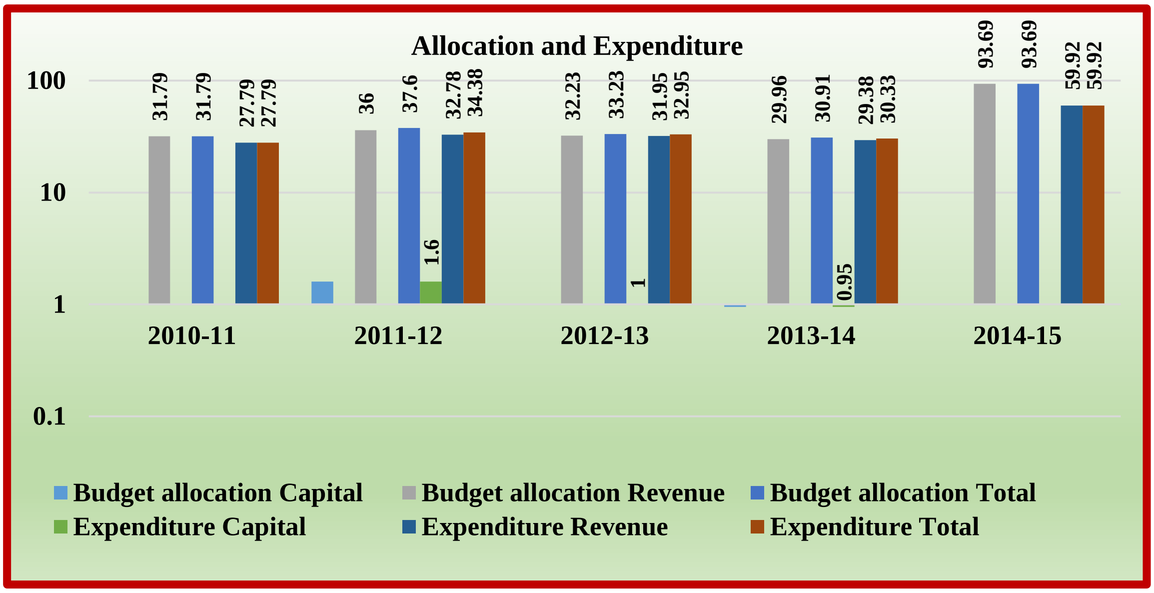
Table 2.4.1

(₹ in crore)

Year	Budget allocation					Expenditure			Excess(+) / Savings (-)	
	Capital		Revenue		Total	Capital	Revenue	Total	Capital	Revenue
	O	S	O	S						
2010-11	00	00	31.02	0.77	31.79	00	27.79	27.79	00	(-) 4.00 (13)
2011-12	00	1.60	17.21	18.79	37.60	1.60	32.78	34.38	00	(-) 3.22(10)
2012-13	1.00	00	32.23	00	33.23	1.00	31.95	32.95	00	(-) 0.28(1)
2013-14	0.95	00	29.96	00	30.91	0.95	29.38	30.33	00	0.58(2)
2014-15	00	00	93.69	0	93.69	00	59.92	59.92	00	(-)33.53(36)
TOTAL	**1.95**	**1.60**	**204.11**	**19.56**	**227.22**	**3.55**	**181.82**	**185.37**		

Source: Details Appropriation Accounts; O= Original and S = Supplementary; Figure in brackets indicate percentage.

Chart 2.4.2



Audit noticed the following:

- ➢ While savings varied from 1 to 13 *per cent* during 2010-11 to 2013-14, it increased to 36 *per cent* in 2014-15 (revenue expenditure).

- ➢ Although supplementary provision of ₹ 0.77 and ₹ 18.79 crore under revenue during 2010-11 and 2011-12 was sought, actual expenditure was less than the total funds available. This led to savings of ₹ 4 crore and ₹ 3.22 crore during 2010-11 and 2011-12 respectively. This indicated that supplementary provisions was obtained without actual requirement.

  The Department stated (October 2015) that the supplementary grants were sought for execution of various works/programme of the Department, which could not be implemented on time due to non-receipt of resources from the Finance, Revenue and Expenditure Department which led to savings.

- Analysis of expenditure revealed that advance of ₹ 8.08 crore was released during the years 2010-11 to 2014-15. Out of this ₹ 2.43 crore remained unadjusted as of March 2015. Further analysis revealed that in 16 cases, the advances were adjusted between 2 and 29 months after the drawal of advance, in 12 cases (drawn between March 2009 and March 2014), materials/services had not been received by the Department as of March 2015.

These instances indicated that advances were released without immediate requirement or adjustments of advances were not insisted upon by the Drawing and Disbursing Officer and Controlling Officer as enshrined in Sikkim Financial Rules. This also led to loss of interest of ₹ 18.19 lakh[14] on unadjusted advances.

The Department stated (October 2015) that necessary steps were being taken to settle the advances.

2.4.9 Programme Management

Audit Objective-3:
To assess whether programme management was efficient and effective.

Programme management plays an important role in achieving overall objectives of the Department. During 2010-15, HCCDD implemented four major schemes, which included Horticulture Mission for North East and Himalayan States (HMNEH), National Bamboo Mission (NBM), National Mission for Medicinal Plants (NMMP) and National Mission for Micro-Irrigation (NMMI). The impact of these schemes w.r.t. area under production, production and productivity for the period under audit for various crops are given below:

Table 2.4.2

Area, production and productivity of various crops

Crop	Particulars	Year					Increase(+)/ Decrease (-) during 2014-15 over 2010-11
		2010-11	2011-12	2012-13	2013-14	2014-15	
Fruits	Area	12.89	13.39	14.65	16.02	17.59	(+) 4.70 (36)
	Production	20.11	22.24	24.02	25.04	26.42	(+) 6.31 (31)
	Productivity	3,089*	3,097*	3,115*	3,127*	3,129*	(+) 40 (1)
Vegetables	Area	14.40	14.58	14.80	15.15	15.17	(+) 0.77(5)
	Production	75.20	77.10	79.75	80.97	80.84	(+) 5.64(8)
	Productivity	5220	5285	5387	5342	5329	(+) 109(2)
Roots and Tubers (R&T)	Area	10.11	10.44	10.75	10.95	10.95	(+) 0.84(8)
	Production	49.16	50.55	52.75	53.55	53.56	(+) 4.40(9)
	Productivity	4,862	4,840	4,905	4,889	4889	(+) 27 (1)
Spices	Area	24.38	25.5	26.56	27.52	28.32	(+) 3.94(16)
	Production	52.37	56.68	60.09	60.91	61.53	(+) 9.16(17)
	Productivity	2,148	2,222	2,222	2,213	2,172	(+) 24(1)
Flowers	Area	0.089	0.098	0.104	0.111	NA	(+) 0.022(25)
	Production	114.08	126.65	129.55	134.54	NA	(+) 20.46(18)

Area- in '000 hectares; Production - in '000 tones except for Flowers (in lakh no.) and Productivity in Kg/ha.
Source: Annual Progress Report of the Department; NA= Figure Not Available.
* *Department mentioned that since the orchard includes bearing and non-bearing fruit plants, the productivity is not derived by normal method as for other plants but by eye estimation.*

[14] *Calculated @ 4 per cent per annum from the date of drawal of advances till March 2015.*

It was noticed that area under production increased marginally but steadily from 12.89 to 17.59 hectares (36 *per cent)* for fruits[15], from 14.40 to 15.17 hectares (5 *per cent)* for vegetables[16], 10.11 to 10.95 hectares (8 *per cent)* for Root and Tubers[17] (R&T) and 24.38 to 28.32 hectares (16 *per cent)* for spices[18] during 2010-15. In case of flowers, area under production increased by 0.022 hectares (24 *per cent*) from 0.089 to 0.111 hectares during the same period.

Similarly, the production increased from 20.11 to 26.42 thousand tonnes (31 *per cent)* for fruits, 75.20 to 80.84 thousand tonnes (8 *per cent)* for vegetables, 49.16 to 53.56 thousand tonnes (9 *per cent)* for R&T and 52.37 to 61.53 thousand tonnes (38 *per cent)* for spices during 2010-15. In case of flowers, production increased by 20.46 lakh numbers (18 *per cent*) from 114.08 to 134.54 lakh numbers during the same period.

The productivity increased 109 kg/ha (2 *per cent)* from 5,220 to 5,329 kg/ha for vegetables, 27 kg/ha (1 *per cent)* 4,862 to 4,889 kg/ha hectare for R&T, 24 kg/ha (1 *per cent)* from 2,148 to 2,172 kg/ha for spices and 40 kg/ha (1 *per cent)* from 3,089 kg/ha to 3,129 kg/ha for fruits during 2010-15.

Comparison with other States

A comparison of productivity of major corps such as fruits, vegetables and spices was attempted by Audit. The data pertaining to other States was not available with the Department therefore, Indian Horticulture Database - 2014 published by National Horticulture Board (NHB) was adopted for comparison. Audit noticed that the productivity of Sikkim recorded by NHB did not match with the productivity figures reflected by the Department in their Annual Progress Reports in case of fruits and spices whereas the figures pertaining to vegetables tallied. The difference could not be explained by the Department. Based on the productivity figure reflected by National Horticulture Board for different States, comparison by Audit revealed following:

Fruits: The comparison revealed that productivity of fruits for Sikkim ranged between 1.5 MT/ha and 1.7 MT/ha whereas other States such as Himachal Pradesh (1.7 to 3.9 MT/ha), Arunachal Pradesh (3.6 MT/ha), Mizoram (5.9 to 6.3 MT/ha), Nagaland (7.4 to 10.3 MT/ha), Jammu and Kashmir (5 to 5.8 MT/ha), Uttarakhand (4 MT/ha) and Meghalaya (9.3 to 9.9 MT/ha) showed better averages ranging between 1.7 and 10 MT/ha. The all India average ranged between 11.4 and 12.3 MT/ha. The details are shown in the **Appendix 2.4.1**.

Vegetables: The comparison revealed that productivity of vegetables for Sikkim ranged between 5.2 MT/ha and 5.3 MT/ha whereas other States such as Himachal Pradesh (18.2 to 19.1 MT/ha), Arunachal Pradesh (13.2 to 25 MT/ha), Mizoram (5.9 to 6.2 MT/ha), Nagaland (6.7 to 12.8 MT/ha), Jammu and Kashmir (22.1 MT/ha), Uttarakhand (11.5 to 12 MT/ha) and Meghalaya (9.8 to 11.8 MT/ha) ranged between 5.9 and 25 MT/ha and all India average of 17.3 to 17.6 MT/ha. The details are shown in the **Appendix 2.4.2**.

[15] *Fruits: Orange, Litchi, Kiwi, Peer, Banana and Guava.*
[16] *Vegetables: Cauliflower, Cabbage, Tomato, Radish, Pea and Bean.*
[17] *Root and Tubers: Carrot and Radish.*
[18] *Spices: Large Cardamom, Ginger, Turmeric and Cherry Pepper.*

Spices: The comparison revealed that productivity of spices for Sikkim ranged between 1.7 MT/ha and 2.2 MT/ha whereas other States such as Himachal Pradesh (1.4 to 4 MT/ha), Arunachal Pradesh (6.1 to 6.3 MT/ha), Mizoram (2.7 to 5.6 MT/ha), Nagaland (4 MT/ha), Jammu and Kashmir (0.2 to 0.3 MT/ha), Uttarakhand (5.1 to 5.9 MT/ha) and Meghalaya (4.4 to 4.8 MT/ha) ranged between 0.2 and 6.3 MT/ha and all India average of 1.9 MT/ha. The details are shown in the **Appendix 2.4.3**.

This indicated that the Department needed to initiate suitable steps to enhance the productivity of fruits, vegetables and spices to catch up with similarly placed States and the all India average.

2.4.9.1 Horticulture Mission for North East and Himalayan States

This HMNEH is the back bone of horticulture development initiatives in the State. The programme was executed through Sikkim Farmers' Agri-business Consortium (SFAC) headed by an Executive Director. The programme focused on establishing convergence and synergy among numerous ongoing programmes in horticulture sector with a view to achieve horizontal and vertical integration for ensuring adequate, appropriate, timely and concurrent attention to all the links in production, post-harvest management and consumption chain to maximise economic, ecological and social benefits.

2.4.9.2 Target and achievement

The achievement of major components under HMNEH for the State for 2010-15 is given below:

Table 2.4.3

Achievement (physical) of Target under HMNEH

Sl. No.	Component	Unit	2010-11	2011-12	2012-13	2013-14	2014-15
1	Production of Planting Materials	Nos	5	41	56	70	58
2	Area Expansion of Fruits, Vegetables, Flowers and Spices	Ha	5,520	6,700	4,939	6,028	5,765
3	Rejuvenation/replacement of senile plantation	Ha	400	700	620	750	732
4	Creation of Water Sources	Nos	4	108	135	150	169
5	Protected Cultivation	Sq. m.	94,000	2,99,155	2,19,260	3,31,800	6,21,923
6	Promotion of INM/IPM	Ha	1,800	10,500	5,000	5,000	10,800
7	Organic Farming	Ha	4,115	9,887	13,233	11,857	16,951
8	Pollination support through Bee keeping	Nos	3,001	1,433	1,003	4,520	0
9	Horticulture Mechanism	Nos	50	101	612	495	1
10	Centre of Excellence	Nos	1	0	1	1	0

Source: Annual Progress reports of the Department. The component of mushroom not included in the table as it was not substantial.

It was noticed that the targets were fully achieved under various components of the HMNEH during 2010-14. During 2014-15, while achievement (16,951 ha) under organic farming was higher than the target (7,809 ha); there were shortfalls in production of planting materials, area expansion in case of flowers and fruits, rejuvenation/replacement of senile plantation, protected cultivation and horticulture mechanisation. Details are given in **Appendix 2.4.4**. The pollination support through bee keeping was not taken up at all during 2014-15 against the target of 2,832 nos. due to non-availability of bee boxes.

Failure to execute pollination support activities was fraught with the risk of lower productivity of various crops in future.

The Department assured (October 2015) that efforts would be initiated in future for achievement of the target.

2.4.9.3 Irregularity in implementation of Centre of Excellence

The SFAC Sikkim took up execution of three Centres of Excellence (CoE) in Horticulture in South, West and East districts at a cost of ₹ 5 crore each (total ₹ 15 crore) fully funded by GOI with the primary goal of growing more from less area. The major component of the CoE included establishment of mother block of improved varieties of fruit, flower and vegetable in open field conditions, rootstock block of citrus and apple (under open conditions), high-tech green houses, naturally ventilated green houses, net houses, low tunnel poly houses, various types of irrigation facilities, support systems for fruits grown in vines/climbers, vermin compost/farm yard manure unit, tissue culture units, training centre, etc. Audit observed that the programme was implemented by the Department in individual farmers' fields like any other area expansion programme for fruits, vegetables, etc. through construction of green houses, distribution of seeds, seedlings, manure, etc. for taking up plantation by farmers. The guidelines envisaged that independent CoEs fully under the control of the Department ought to be established. This was obviously to provide access and demonstration to all farmers which would become restricted when such centres come up on private land.

Image 2.4.1

Green House constructed in farmers' field at South District

Image 2.4.2

Green House constructed in farmers' field at West District

Activities like cultivation of local vegetable/drum stick were taken up by farmers, which was easily available locally and did not contribute towards establishing or even introduce improved varieties. In other States like Haryana, Maharashtra and Odisha, the CoEs had been established in technical collaboration with Israel by Horticulture Directorates of respective States, for the purpose of improvement of varieties.

The major components of the CoEs envisaged in the programme vis-à-vis actual execution in the field is tabulated below to indicate departure from the approved programme:

Table 2.4.4

Major component	Name of the districts, year of establishment (in brackets) and action taken		
	South (2010-11)	West (2013-14)	East (2013-14)
Establishment of mother block of improved varieties in open field condition	Not done	Not done	Not done
Establishment of mother block of citrus in greenhouse	Not done	Not done	Not done
Hi-tech green house	Not done	Not done	Not done
Automation fertigation/irrigation unit	Not done	Not done	Not done
Vermin compost/FYM unit	Not done	Not done	Not done
Tissue culture unit	Not done	Not done	Not done
Training Centre	Training centre not constructed and instead renovated existing building. Funds lying without utilisation.	80 *per cent* completed as of July 2015.	Site not finalised as of July 2015.
Grading, pack house and cold room	Not done.	Not done	Not done
Technical support/manpower	Done	Done	Done

Source: Information collated from Departmental records.

A comparison of Sikkim with the other States such as Haryana and Odisha revealed that the major components of CoEs were implemented by other States but had not been done in Sikkim as shown below:

Table– 2.4.5

Major component	Name of the State and action taken		
	Haryana	Odisha	Sikkim
Establishment of mother block of improved varieties in open field condition	Mother block of improved variety of tomatoes, capsicum, cucumber and brinjal was established.	Mother block of improved variety of tomatoes, capsicum and cucumber was established.	Mother blocks not established.
Establishment of mother block in greenhouse	Mother block of vegetable was established.	Mother block of vegetable was established.	Mother blocks not established.
Hi-tech green house	Hi-tech green house with fitted with cooling, misting heating system alongwith humidity and temperature control system and raised platform were constructed.	Hi-tech green house with fitted with cooling, misting heating system alongwith humidity and temperature control system and raised platform were constructed.	Tubular structure green houses were constructed in the farmers' field instead of high tech green houses.
Automation fertigation/irrigation unit	Established.	Overhead sprinkling and fogging system installed for Fertigation.	Not established.
Tissue culture unit	Established.	Established.	Not established.
Training Centre	Training Centre established and training to the farmers were provided.		2 (out of 3) centres were taken up but not completed as of March 2015.
Grading, pack house and cold room			Not done.
Technical support/manpower	Done.	Done.	Done.

Audit verification further revealed that the (i) detailed project report, guidelines were not available in the concerned districts as well as in the Head Office, (ii) evaluation study was not carried out to assess the impact on productivity, (iii) permanent register indicating layout of promising variety was not maintained, (iv) agreement with the beneficiary farmers were not entered into for enabling free access and use of facilities by Government and other farmers for demonstration and other purposes in future and (v) irrigation system was not installed in the three test checked Green Houses in West District.

Thus, the CoE, which was intended to grow more from less area by establishment of mother block of improved variety and other associated facilities was not achieved despite incurring ₹ 13.93 crore by the Department.

The Department stated (August 2015) that the CoEs were established in the farmer's field as (i) existing State Government farms were located at different places where sufficient area for implementation of various components was not feasible; (ii) establishment of different economic crops in accordance with the varied agro-climatic condition was not possible to be taken up in the existing Government farms; (iii) the programme was funded by GoI as one time grant, post maintenance of the project would not be possible; (iv) mother blocks of different kinds of fruits, flowers, vegetables could be accomplished by using different agro-climatic condition in the farmers' field; and (v) that the programme had become focal unit to disseminate the success stories and replication to surrounding cluster areas as it was implemented in the farmer's field.

However, not only the establishment of CoE in farmers field was against the spirit of the guideline, programme objective of establishment of mother blocks of different kinds of fruits, flowers, vegetables, etc. for improving the productivity had not been accomplished as of November 2015. Further, approval from GOI to implement the CoEs in farmer's field instead of Government farm was not obtained.

2.4.9.4 Idling of floriculture infrastructure

The Department took up construction of Integrated Floriculture Pack House (IFPH) for fresh cut flowers, flower bulbs and allied products at Rangpo and Melli at a total project cost of ₹ 299.30 lakh under the financial assistance (₹ 280 lakh) of Agriculture and Processed Food Export Development Authority (APEDA). The project was taken up with the objective of collecting, sorting, grading, packing, preservation and export of cut flowers to earn maximum foreign exchange. The project was split in two phases: Phase-I envisaged establishment of Rangpo Pack House at ₹ 151.90 lakh and Phase-II envisaged establishment of Melli Pack House and two cold storages at ₹ 147.40 lakh.

Audit noticed that the Department undertook Phase-I of the project entailing construction of Integrated Floriculture Pack House (IFPH) at Rangpo in 2007-08. The project consisted of a cold storage unit, sorting/grading rooms, office block, two reefer vans, crate buckets, weighing scale, packing materials, etc. The construction of project commenced in August 2007 through contractor and was completed in May 2008 at a cost of ₹ 151.90 lakh. The project was handed over only in April 2011 to SIMFED for operation. However, the project was returned back (May 2012) by SIMFED as they could not use the facility for reasons not on record. Thereafter, the project remained idle as seen in the photograph below:

Image 2.4.3

Image 2.4.4

Image 2.4.5

Closed down Integrated pack house, Rangpo

The Department while agreeing that the facility could not be used by SIMFED stated (October 2015) that the same was likely to be handed over to Sikkim Rural Development Agency (SRDA). The Department further added that monitoring Committee would be formed consisting of members from SRDA, SIMFED and Department to ensure its proper usage.

Thus, the project completed at a cost of ₹ 151.90 lakh was rendered unfruitful as of October 2015 and the project objective of collecting, sorting, grading, packing, preservation and export of cut flowers to earn maximum foreign exchange were not achieved. Phase-II of the IFPH project proposed to be established at Melli at a cost of ₹ 147.40 lakh was substantially revised (June 2010) to ₹ 384.03 lakh. The civil construction part of the project was completed to the extent of 90 *per cent* by incurring ₹ 2.17 crore as of August 2015. However, installation of machinery and equipment was awaited due to want of funds. The Department had invited (October 2015) expression of interest for leasing out the facility at Melli. However, as of October 2015, value for money was not obtained from the facility and it remained idle despite incurring an expenditure of ₹ 2.17 crore.

2.4.9.5 Inordinate delay in establishment of Modern Flower Electronic Auction Centre and Pack House

The Department decided (August 2012) to set up a Modern Flower Electronic Auction Centre and Pack House in the upcoming Airport at Pakyong with the objective of export of floriculture products. The HCCDD accordingly selected (October 2013) M/s Global Agri System Pvt. Ltd, a New Delhi based firm through Notice Inviting Tender (November 2012), for preparation of feasibility report and Detailed Project Report (DPR) of Modern Flower Electronic Auction Centre for ₹ 27.52 lakh. The agency submitted (July 2014) the feasibility report and DPR to the Department and ₹ 4.71 lakh (out of ₹ 27.52 lakh) was paid (July 2015) to the agency. Audit verification revealed that even after lapse of more than one year of submission of DPR, the approval of DPR was not accorded by HCCDD owing to fund constraints. Thus, the Department had incurred ₹ 27.52 lakh (₹ 4.71 lakh paid and ₹ 22.81 lakh committed liability) without ensuring its utility. The project remained incomplete as of August 2015. Failure to complete the project was fraught with the risk of non-achievement of intended objective of boosting export of floriculture products.

2.4.9.6 Creation of Sorting and Grading line

National Horticulture Board (NHB), GOI sanctioned (March 2012) ₹ 2.99 crore towards Sorting and Grading line for Sikkim Mandarin (Orange) alongwith pack house, low cost preservation unit and pusa zero energy cool chamber to facilitate easy marketing of products within and outside the State. The NHB simultaneously released ₹ 1.50 crore as 50 *per cent* share and advised the State Government to invest State share and Central assistance in equal proportion. The HCCDD released (March 2013) ₹ 1 crore to SIMFED for establishment of project in all four districts of the State within July 2014, failing which amount along with interest earned therefrom would be refunded by SIMFED. The project after completion would be handed over to SIMFED for operation.

It was noticed that out of four Sorting and Grading line units, only two were taken up by SIMFED in North (Gnon Samdong Farm, Dzongu) and West (Kamling Farm) districts as of March 2015. The other two units in East and South districts were not taken up at all, primarily due to failure of the State to release its matching share. The HCCDD had neither requisitioned from the State Government for release of matching share of ₹ 1.50 crore nor the State Government released the same. The said two projects in North and West districts had been completed belatedly, recording a delay of six months at a cost of ₹ 1 crore, owing to delayed finalisation of site. The completed projects in North and West districts had also not been operationalised by SIMFED as of August 2015, despite a trial run conducted (January 2015) in case of West district as the orange season was over.

Thus, against the four sanctioned Sorting and Grading line units of ₹ 2.99 crore, the Department constructed only two units, that too had not been operationalised as of August 2015 despite incurring ₹ 1 crore. As a result, project objective of easy marketing of Sikkim Mandarin (orange) products was not achieved.

The Department stated (October 2015) that remaining two projects could not be taken up in absence of matching grant from State Government. In a subsequent reply, the Department stated (November 2015) that local Panchayats and Co-operative societies had expressed their interest to run the infrastructure. Hence, the Department was contemplating to hand over the facilities to them on mutually agreed terms. However, as of November 2015, the projects were neither handed over to Co-operative Societies nor put to operation.

2.4.9.7 Integrated Nutrient Management (INM) and Integrated Pest Management (IPM)

With a view to discourage indiscriminate use of nutrients and pesticides by farmers, component of promotion of INM and IPM was implemented through technology dissemination. Assistance was also given for developing long term plant protection facilities like disease forecasting units, bio-control laboratories, plant health clinics and Leaf/Tissue Analysis laboratories. The Mission spent ₹ 3.06 crore during 2010-15 to implement INM/IPM in farmers' field and Government Farms.

Audit observed that the fund was utilised for short term activities such as trial-cum-demonstration for large cardamom (₹ 2 lakh), procurement of inputs for establishment of large cardamom nurseries (₹ 12.96 lakh), purchase of insect traps, agro-shed nets and chemicals (₹ 35 lakh) during 2012-13. The expenditure did not conform to the purpose of establishment of infrastructure for disease forecasting units, plant health clinics/tissue analysis units, etc. for which funds had been sought under the INM/IPM components. This not only constituted deviation but also deprived farmers of common facilities for INM/IPM.

The Department stated (August 2015) that fund availability under the component was not sufficient enough to accommodate the high cost of establishment of plant health clinic and disease forecasting units as per the standards of the guidelines. The Department further added that the establishment of above infrastructure would be implemented once the funds are available. The action of the Department to utilise the funds against the stipulation of the guidelines was irregular and did not help in developing long term plant protection facilities.

2.4.9.8 Protected cultivation

HMNEH guidelines (Para-10.2.11) envisaged promotion of activities like construction of shade net house, green houses, mulching and plastic tunnels, anti-bird/hail nets to increase the productivity. State Horticulture Mission constructed a number of structures in the farmers field at an aggregated cost of ₹ 65.64 crore during 2010-15. Audit observed during beneficiary survey that the structures were put to use by the farmers and the farmers regarded the structure very useful in improving the productivity thereby supplementing their income. The State Horticulture Mission, however, had neither collected the production particulars from the beneficiaries to establish that there was proper utilisation of subsidy and increase in production and productivity after implementation nor realised 50 *per cent* beneficiary contribution of ₹ 32.82 crore as envisaged in the guidelines.

The Department stated (August 2015) that farmers contribution was not taken in financial terms but they had contributed towards land leveling including stone walls, arrangement of required organic manure, water for irrigation, labour for cultivation, etc. The guidelines however, mandated for 50 *per cent* cost recovery from farmers which was not effected by the Department. Regarding the production particulars from the beneficiaries, the Department stated (August 2015) that records were regularly sought from district officials and farmers were being trained to maintain proper production records to facilitate monitoring. However, details of records sought from districts were not available for verification by Audit.

2.4.9.9 Creation of Water Sources

The HMNEH provided assistance for creating water sources through construction of community tanks, farm ponds/reservoirs with plastic/RCC lining to ensure life saving irrigation to horticulture crops. The assistance was to be dovetailed in conjunction with Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and wherever possible adequate convergence was to be ensured.

During 2013-14, the Department incurred ₹ 3.16 crore towards creating water sources in the form of Genap community tank (₹ 1.60 crore), dug out ponds for individual/farmers (₹ 0.80 crore) and ₹ 0.76 crore towards procurement of pipes.

Audit noticed that as per approved Annual Action Plan for 2013-14, 10 community tanks (size 100mx100mx3m) aggregating to total storage facility of 30 crore litres, with use of plastic/RCC was to be created at a cost of ₹ 1.73 crore for non-MGNREGS beneficiaries. It was noticed in Audit that while implementing the programme, the Department had deviated from the approved plan and procured 27 readymade tanks (Genap tanks) of 50,000 litres each (involving a total cost of ₹ 1.60 crore) along with pipes and fittings to be installed at different locations all over the State. The total capacity of the 27 tanks @ 50,000 litres per tank worked out to 13.50 lakh litres only against the targeted storage capacity of 30 crore litres to be created under the programme. Thus, there was a shortfall of creation of community water storage facility of 29.86 crore litres (99 *per cent*).

The Department stated (October 2015) that Genap tanks were installed considering its water use efficiency which was much higher due to less evaporation loss and less maintenance cost.

The reply was not acceptable as installation of Genap tanks led to considerable shortage (99 *per cent*) in storage capacity of water. Further, approval of the funding agency in GOI for this major diversion from the scheme specifications was not sought.

Similarly, the Department obtained the approval of GOI for construction of water harvesting system for individual farmers at a total cost of ₹ 1.44 crore for 140 ponds of 20mx20mx3m size all over the State. In terms of the approved action plan, the Department was required to create total water storage capacity of 16.80 crore litres (20x20x3x140x1,000 litres) at a cost of ₹ 1.44 crore in 140 ponds. Against the above approved plan, the Department created 93 lakh litres storage capacity in three districts of the State (East-30 lakh litres; South 40 lakh litres and West-23 lakh litres) by incurring ₹ 1.56 crore towards dug ponds of various sizes ranging between 20,000 litres and 50,000 litres and procurement of pipes. Thus, there was shortfall of water harvesting capacity of 15.87 crore litres (99 *per cent*) under the component of providing water harvesting facility to individuals.

The Department stated (October 2015) that dug out ponds could not be executed in Sikkim due to difficult terrain entailing high transportation and labour cost. The reply was not acceptable as approval from GOI was not sought for deviation from the approved plans. Further, deviation led to considerable reduction (99 *per cent*) of storage capacity of water, which was bound to impact on production and productivity of various crops in coming years.

2.4.9.10 Award of work to NGO without tender

The NEC, Ministry of Development of North Eastern Region, GOI sanctioned (December 2012) a project 'Cultivation of Commercial Floriculture Crops, Rumtek, East Sikkim' at a cost of ₹ 3.83 crore on cost sharing of 90:10 between GOI and State Government and simultaneously released (December 2012) ₹ 1.20 crore towards first installment. The project comprised of infrastructures like green houses, stores, irrigation systems, planting materials in 2.75 acres of land, with a view to promote production of anthurium, lilium and orchids under green house. The terms and condition of the NEC sanction categorically stipulated that the project should be implemented by the HCCDD and completed (November 2015) within three years from date of sanction.

Image 2.4.6

Incomplete work

Audit noticed that the work was awarded (December 2012) to an NGO, Sikkim Social Youth Welfare Association (SSYWA) through SIMFED based on their request, without inviting tenders and specific approval of the funding agency (NEC). The Department also did not verify the bona-fides and credentials of the NGO, authenticity of the beneficiary farmers included in the project and cost and quantities included in the project. The terms of entrustment to the NGO were also not spelt out by the Department. Physical verification of the project by Audit along with departmental officers revealed (September 2015) that the progress of work was slow, construction of green houses were not completed, irrigation systems had not been installed and plantation had not commenced. Therefore, the progress of the project was very poor as compared to its stipulated date (November 2015).

Thus, award of work to the SSYWA without inviting tenders and without ascertaining the authenticity of the beneficiary farmers included in the Project Report vitiated fair competition and was against the financial propriety. This led to extension of undue favour to the NGO. Besides, delay in implementation of project also indicated that robust monitoring was lacking to reap the benefits of promoting production of anthodium, lilium and orchids envisaged in the project in time bound manner.

2.4.10 National Bamboo Mission

The National Bamboo Mission (NBM) was launched (2006-07) by the Department of Agriculture and Co-operation (DAC), GOI with the objective to uplift the socio-economic condition of the poor villagers by introducing large scale bamboo production in rural areas so that poor villagers would get direct benefits of using the bamboo and its products.

The HCCDD was designated as the Nodal Department to implement this programme in the State. Against the total funds of ₹ 14.88 crore under NBM during period under audit, funds were allocated among three departments for various activities as detailed below:

Table 2.4.5

(₹ in crore)

Name of Department	Fund	Activities
HCCDD	8.57	Plantation in non-forest areas, maintenance of plantation, training of farmers and overall monitoring of implementation of NBM in the State.

Name of Department	Fund	Activities
Forest, Environment and Wildlife Management Department (FEWMD)	5.59	Plantation in forest area, maintenance of plantation, treatment of harvested crop to enhance durability, introduction of new designs and mechanisation of bamboo based crafts, introduction of grading systems of round and primary processed bamboo, introduction of preservative methods, construction of warehouses for storage of harvested bamboo crops, setting up of bamboo wholesale and retail markets near villages, marketing through bamboo festivals, *Melas*, expos, craft bazaars, bamboo markets and introduction of effective electronic information flow system for promotion, popularisation and sale of bamboo and bamboo based products to benefit all stake holders involved in the bamboo sector.
DHH	0.72	Enhancing employment opportunities, preservation and introduction of new designs and mechanisation of bamboo-based crafts, conversion of niche bamboo handicraft products to mass products, introduction of utility handicrafts through industrialised means, setting up of bamboo wholesale and retail markets near villages, marketing through Bamboo Festivals, *Melas*, Craft Bazaars, bamboo markets and introduction of effective Electronic Information Flow systems.

Audit verification revealed the following:

➢ ***Forest, Environment and Wildlife Management Department (FEWMD)***

The FEWMD incurred funds (₹ 5.63 crore)[19] primarily towards plantation (₹ 2.85 crore), maintenance of plantation in forest area (₹ 2.67 crore) besides other minor activities (₹ 0.11 crore) associated with bamboo plantation. The FEWMD had thus, not utilised the funds towards other important activities as laid out in NBM guidelines such as construction of suitable warehouses near the forest areas for storage of bamboo crops, treatment of harvested crops to enhance durability, introduction of new designs, introduction of effective electronic information flow system for promotion, popularisation and sale of bamboo and bamboo based products to benefit all stake holders involved in the bamboo sector.

In reply, the FEWMD while agreeing that the funds were mainly incurred towards bamboo plantation and its maintenance in forest areas stated (October 2015) that one each of bamboo whole sale market and retail outlet had been approved during 2014-15 which would be completed during the current year (2015-16). Introduction of new designs, introduction of effective electronic information flow system for promotion, popularising and sale of bamboo and bamboo based products to benefit stake holders were being done through pamphlets/brochures on bamboo crafts, participation in trade fairs, seminars in the district, exposure visit to different institutes like Cane and Bamboo Technology Centre, Guwahati, Forest Research Institute (FRI) Dehradun, etc.

However, as of November 2015, important activities such as construction of suitable warehouses near the forest areas for storage of bamboo crops, treatment of harvested crops to enhance durability, introduction of new designs, introduction of effective electronic information flow system for promotion, sale of bamboo and bamboo based products to benefit stake holders had neither been achieved nor assessment carried out to assess the production and productivity.

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19 *Additional ₹ 4.17 lakh was incurred from interest earned.*

➢ *Directorate of Handloom and Handicraft (DHH)*

The DHH utilised the transferred funds of ₹ 72.10 lakh during 2010-15 towards construction of retail outlets at Gangtok (₹ 10.66 lakh), Namchi (₹ 13.33 lakh), New Delhi (₹ 13.33 lakh), Soreng (₹ 10 lakh) and Innovative Intervention and Skill Development Training (₹ 11.95 lakh). Thus, the DHH had not carried out the important activities such as enhancing employment opportunities, preservation and introduction of new designs and mechanisation of bamboo-based crafts, conversion of niche bamboo handicraft products to mass products, introduction of utility handicrafts through industrialised means, setting up of bamboo wholesale and retail markets near villages and marketing through Bamboo Festivals, *Melas*, Craft Bazaars, bamboo markets and introduction of effective Electronic Information Flow systems as listed in the NBM guidelines. Annual Action Plans within the parameters of the Mission detailing the activities as required under NBM guidelines was also not formulated by DHH.

The DHH stated (October 2015) that skill upgradation training like Innovative Design and Development Training Workshop, Integrated Design for Artisans, etc. in different parts of districts were being organised for enhancing employment opportunity. For creating platform for marketing, DHH was directly procuring bamboo products made by bamboo artisans and sending bamboo artisans for exhibition and fairs outside Sikkim.

However, as of November 2015, preservation and introduction of new designs and mechanisation of bamboo-based crafts, conversion of niche bamboo handicraft products to mass products, setting up of bamboo wholesale and retail markets near villages and introduction of effective Electronic Information Flow systems as listed in the NBM guideline had not been taken up.

Thus, the FEWMD and DHH had not undertaken the important activities as listed above despite incurring substantial funds of ₹ 6.35 crore. The HCCDD also, on its part, had not monitored the works carried out by FEWMD and DHH to ensure achieving the intended objectives under the NBM. Even the assistance was provided to FEWMD on year to year basis without assessing the survival of 90 *per cent* of the plants as envisaged in the NBM guidelines. Further, monitoring and evaluation of the impact of the scheme to increase employment opportunities, preservation and introduction of new designs and mechanisation of bamboo-based crafts to assist in marketing the products were also not attempted either by HCCDD or the other implementing agencies.

2.4.10.1 Absence of processing and marketing of bamboo produce

The Department reported achievement of 7,939 hectares of bamboo plantation during the period 2006-07 to 2014-15 as shown below:

Table 2.4.6

Year	Target (*ha.*)	Achievement (*ha.*)	Beneficiaries covered
Upto 2009-10	5,067	5,030	6,942
2010-11	860	837	1,086
2011-12	1,200	1,197	677
2012-13	80	80	124
2013-14	300	300	NA
2014-15	500	495	460
TOTAL	**8,007**	**7,939**	**9,289**

Source: Figure furnished by the Department. NA= Data not made available.

Out of 7,939 hectares, 5,030 hectares of bamboo plantation done in 2006-10 by the HCCD Department had already completed five years and thus became mature for extraction. In terms of the expected annual economic return from bamboo plantation, the net commercial value of the product upto 2009-10 would be ₹ 172.22 crore as detailed below:

Table 2.4.7

(₹ in crore)

Yield during	Area *(ha.)*	Value of yield	Total value
2011-12	700[20]	700 x ₹ 1.52 lakh[21]	10.64
2012-13	2,300 (700+1,600[22])	2,300 x ₹ 1.52 lakh	34.96
2013-14	3,300(700+1,600+1,000)	3,300 x ₹ 1.52 lakh	50.16
2014-15	5,030(700+1,600+1,000+1,730)	5,030 x ₹ 1.52 lakh	76.46
TOTAL			**172.22**

Further, the HCCDD had incurred expenditure of ₹ 26.29 crore under NBM towards plantation and maintenance of bamboo crop during 2006-15. However, records provided to audit did not show any planning and action undertaken by the Department towards post-harvest collection, preservation-cum-storage, processing and marketing of bamboo crop and bamboo based products. Thus, raw bamboo crop valuing ₹ 172.22 crore which became mature for harvesting during 2011-15 failed to yield any benefit to the farmers.

The Department stated (August 2015) that the bamboo plantation was mostly done in the sloppy, unfertile, degraded land which were unsuitable for agricultural purposes. Land profile of Sikkim coupled with non-application of chemical fertilisers, low population and absence of buyers from other states constrained easy and large scale harvesting, processing and marketing of bamboo and bamboo based products. The Department further added that export of bamboo based products was economically not feasible due to high labour cost, difficulties in harvesting and processing and high transportation cost. The reply was not acceptable as these constraints and non-feasibility of export of bamboo based products should have been analysed before taking up the programme.

In a subsequent reply, the HCCDD while accepting that data on production and quantity of bamboo Culm used and bamboo shoot consumed locally was not available with the Department stated (October 2015) that baseline survey to assess the production and productivity of bamboo under forest and non-forest areas had been initiated. Bamboo Treatment Plant, Post-harvest management structure with preliminary processing of bamboo and wholesale outlet for marketing of bamboo had been established at Rangpo in the current year (2015-16) to promote marketing of treated bamboo.

The Department, however, had not initiated suitable steps to harness the value of products as of November 2015. This defeated the objective of the NBM to provide stable and regular income to the farmers besides failing to provide employment and livelihood security to artisans, skilled labourers and others associated with the bamboo sector.

[20] *700 ha planted during 2006-07 matured in 2011-12.*
[21] *Calculated on the basis of ₹ 1.52 lakh per ha reckoned by Arunachal Pradesh.*
[22] *1,600 ha planted during 2007-08 matured in 2012-13.*

2.4.11 National Mission on Micro Irrigation

Water is one of the most critical inputs for agriculture. The availability of adequate water for irrigation is a key factor in achieving higher productivity. National Mission on Micro Irrigation, a Centrally Sponsored Scheme on Micro Irrigation was introduced in January 2006. The Scheme objective was to increase the area under improved methods of irrigation for better water use efficiency to provide stimulus to agricultural growth in a mission mode. The scheme aimed to help converge micro irrigation activities under major government programmes[23] to create integrated water harvesting structures for increasing water use efficiency, crop productivity and farmers' income. The salient features of the scheme vis-à-vis the position of the State is given below:

2.4.11.1 State Micro Irrigation Committee

The Operational Guidelines (November 2010) of National Mission on Micro-Irrigation (NMMI) envisaged (Para-4.3 and 4.4) constitution of a State Micro Irrigation Committee (SMIC) under the chairmanship of the Secretary, Horticulture/Agriculture with members /representatives from concerned departments like Water Resources, Rural Development, Ministry of Agriculture, State Panchayati Raj Institution, etc. to oversee the implementation of the Mission programme.

The function of SMIC *inter-alia* included (i) organising of base line survey and feasibility studies in different parts of the State, (ii) finalise the consolidated action plans of the districts, (iii) register the System Manufacturers and circulate the list thereof along with quote price to DMIC and implementing agencies and (iv) organise various training and extension programmes for farmers.

Audit noticed that although the SMIC was constituted (July 2010), it had not met on quarterly basis as required under the guidelines. Baseline survey and feasibility studies in different parts of the State covering various crops and technologies were not initiated as of March 2015. No action had been taken by the SMIC to register the system manufacturers of Irrigation equipment and circulate list of such manufacturers along with the quoted price to the District Micro Irrigation Committees (DMIC) and Implementing Agencies to facilitate installation and commissioning of the systems to the satisfaction of the farmers in order to ensure good quality components having BIS mark.

The Department had also never approached the SMIC to indicate quantum of money to be paid by the beneficiaries/banks to the manufacturers before installing the systems as envisaged in the Guidelines. Instead, the Micro Irrigation systems were procured directly from SIMFED, an apex Cooperative Society engaged in marketing of agricultural produce and procurement of agricultural inputs, without ensuring quality certification by Bureau of Indian Standards (BIS).

The Department stated (August 2015) that (i) all supplies in the State were procured from registered companies through SIMFED, (ii) the SMIC would meet quarterly in future, and (iii) action had already been taken by the SMIC to register the Irrigation system

[23] *HMNEH, Rashtriya Krishi Vigyan Yojana (RKVY), National Food Security Mission (NFSM).*

manufactures and circulate the list of such manufacturer along with quoted price to DMIC.

However, the guidelines had stipulated that the registered system manufacturing company must provide free after sale service to the farmers for at least three years and they should set up service centres for providing technological and agronomic support at the grassroot level, which had not been done till date.

Similarly, though DMIC was constituted in all districts between 2010-11 and 2013-14 as required under the Operational Guidelines (November 2010) of NMMI (Para-4.5) for implementing the NMMI programme in the district, the meeting of the Committee was not held on monthly basis.

2.4.11.2 Perspective/strategic plan

Perspective/strategic plan and road map for micro irrigation technology was not formulated as required in the Operational Guidelines of NMMI (Para-12.2). Synergy and convergence with the other departments like RMDD, FSADD was also not carried out except in 2014-15 with RMDD for water harvesting tanks.

The Department stated (October 2015) that perspective plan would be prepared in consonance with mission goals and objectives.

2.4.11.3 Target and achievement

The physical target and achievement of NMMI during 2010-15 is given below:

Table 2.4.8

Year	Target *(ha.)*	Achievement *(ha.)*	Beneficiaries covered
2010-11	00	00	00
2011-12	364.33	364.33	1,686
2012-13	201.59	172.67	1,014
2013-14	992.07	992.07	3,516
2014-15	841.70	841.70	2,268
TOTAL	**2,399.69**	**2,370.77**	**8,484**

Source: Figure furnished by the Department.

The Department achieved the target except in 2012-13. During 2012-13, achievement was 172.67 ha against the target of 201.59 ha leading to shortfall 29 ha (14 *per cent*) despite incurring entire sanctioned funds of ₹ 2.40 crore. The reasons for this shortfall could not be furnished by the Department.

2.4.11.3 Lapse of central fund

NMMI was launched in June 2010. The Department was required to prepare AAP for the year 2010-11. The proposal for ₹ 2 crore was mooted but was not finalised by the Department. Due to non-finalising the AAP, the central fund of ₹ 1 crore (50 *per cent* of ₹ 2 crore) was not sanctioned by GOI resulting in loss of central assistance.

The Department accepted (October 2015) the audit observation.

2.4.11.4 Disbursement of micro irrigation system to the beneficiaries

In terms of the Operational Guidelines (Para-4.7), the Implementing Agency (IA) was required to disburse financial assistance to the beneficiaries at the rate commensurate with the size of the holdings as per revenue records in accordance with the guidelines of the scheme and furnish Utilisation Certificates and Monthly Progress Reports in the prescribed proforma to the Ministry of Agriculture.

Audit noticed that financial assistance was not disbursed to the beneficiaries directly as envisaged in the scheme guidelines. Instead, the micro-irrigation systems procured from SIMFED were provided to the farmers, without considering the size of holdings. Thus, there was deviation from the guidelines.

The Department stated (August 2015) that the system was procured from SIMFED and provided to the beneficiaries as per the policy of the State Government to procure all agricultural inputs from SIMFED. The action however, was in deviation of the Scheme Guidelines.

2.4.11.5 Excess expenditure on demonstration units

Assistance for demonstration of micro irrigation (MI) technology was provided by the Central Government @ 75 *per cent* of the system cost for a maximum area of 0.5 ha per beneficiary. MI demonstration was to be taken up on farmers' field and also on farms belonging to State/Central Governments, State Agricultural Universities (SAUs), ICAR Institutes, Non-Governmental Organisations (NGOs)/Trusts.

Audit noticed that the Department executed drip irrigation demonstration without realising 25 *per cent* cost contribution from the beneficiaries. During 2011-14, the State implemented drip irrigation in 443.84 hectares (1,196 units) on demonstration mode at a cost of ₹ 2.85 crore entirely from the Central funds. Non-realisation of beneficiary contribution was not only against the guidelines but also resulted in unauthorised excess expenditure of ₹ 0.95 crore from the NMMI funds on installation of drip irrigation system on demonstration mode.

The Department stated (August 2015) that the beneficiaries contributed their share in kind through supply of pipes, fittings, storage tank and transportation of water from source to the farm. The action however, was in deviation of the Scheme Guidelines and the quantum of contribution was neither quantified nor documented.

Thus, creation of infrastructure for the irrigation facilities was not done in full to provide required facility to the farmers as pointed out in *Para-2.4.9.9* and the implementation under NMMI was also not in conformity with the scheme guidelines as mentioned above. Besides, additional areas could have been covered with ₹ 0.95 crore incurred towards meeting beneficiaries contribution. Failure to enrol stakeholders through contribution could prove to be a deterrent to full beneficiary participation in this scheme.

2.4.12 National Mission on Medicinal Plants

The National Mission on Medicinal Plants (NMMP), a Centrally Sponsored Scheme, funded by National Medicinal Plant Board, GOI was launched in the State during 2009-10 with the objectives to (a) support cultivation of medicinal plants; (b) promote standardisation and quality assurance by adopting good agricultural and collection practices; (c) support setting up of processing zones/clusters through convergence of cultivation, warehousing, value addition and marketing; (d) develop infrastructure for implementation and certification mechanism for ensuring quality standards. The HCCDD was the implementing agency in the State. Under the scheme, production of medicinal planting materials through setting up of nursery in public as well as private sector, cultivation of medicinal plant, etc. were taken up. Position of the NMMP in the State is given below:

2.4.12.1 Base line survey and feasibility studies

Operational Guidelines of NMMP [para 7.11 (iv)] envisaged conducting of base line survey and feasibility studies in different parts of districts and sub-districts to determine the status of medicinal plants, its potential and demand and tailor assistance accordingly. The Department claimed to have conducted the base line survey and feasibility studies but the reports were not documented and produced to Audit. Thus, the Department did not possess the exact information on various aspects of medicinal plants relevant to its geographical condition for effective implementation of the scheme to realise its full potential.

The Department stated (October 2015) that base line survey and feasibility studies were carried out during 2009-10 and informed that the same would be taken up again during the current year (2015-16).

2.4.12.2 Technical Support Group

According to para 7.11 of the Operational Guidelines of NMMP, the State Mission will have a technical screening committee consisting of domain expert to appraise the proposals. Audit noticed that the TSG was not constituted as of March 2015 and thus the Department was devoid of the benefits envisaged through TSG in the State.

The Department stated (October 2015) that the TSG would be constituted during the current year (2015-16).

2.4.12.3 Target and achievement

The physical target and achievement of NMMP during 2010-15 as indicated below revealed that the target was met in full by the Department except during 2013-14:

Table 2.4.9

Year	Target (*ha.*)	Achievement (*ha.*)
2010-11	00	00
2011-12	287.74	287.74
2012-13	595	595
2013-14	349	179.48
2014-15	446	446
TOTAL	**1,677.74**	**1,508.22**

Source: Figure furnished by the Department.

2.4.12.4 Establishment of new nurseries

To meet the requirement of quality planting material, financial assistance was to be provided for establishment of new nurseries (public as well as private sector) under the scheme. The details of establishment of new nurseries were as under:

Table 2.4.10

(₹ in lakh)

Year	Public				Private				Amount involved
	Model		Small		Model		Small		
	T	A	T	A	T	A	T	A	
2009-10	5	5	6	6	10	10	12	12	140.28
2010-11	6	6	6	6	1	1	2	2	178.00
2011-12	2	2	2	2	0	0	0	0	80.00
2012-13	2	2	6	6	0	0	10	10	48.00
2013-14	2	2	2	2	0	0	0	0	48.00
2014-15	0	0	4	4	0	0	0	0	16.00
TOTAL	**17**	**17**	**26**	**26**	**11**	**11**	**24**	**24**	**510.28**

Source: Figure furnished by the Department. T: Target, A: Achievement

Audit noticed that although the Department maintained details of public and private nurseries for raising medicinal plants in the district, details of seedling grown and supplied by each of the nurseries was not maintained by the Department. Therefore, extent of availability of quality planting material through nurseries could not be assessed in Audit.

The Department stated (October 2015) that district officials had been instructed to furnish the detailed data of medicinal plants, seedling production from public and private nurseries. However, as of November 2015, details had not been received.

2.4.12.5 Marketing facilities not created

There was no achievement under Post-Harvest Management component despite having a provision of ₹ 80 lakh for establishment of Drying Sheds and Storage Godowns during 2009-10. Similarly, during 2010-11, there was no achievement under creation of marketing infrastructure (₹ 20 lakh); testing charges (₹ 25 lakh); organic certification (₹ 10 lakh) and linkage (₹ 10 lakh). Due to non-utilisation, GOI did not release funds in the subsequent years under these components.

The Department stated (October 2015) that they were responsible for production and area expansion only and the marketing was done by farmers through marketing cooperatives. The reply was not acceptable as GOI Guidelines envisaged for end to end approach which *inter alia* includes creation of marketing facilities for farmers produces.

2.4.12.6 Dovetailing with other schemes

According to the scheme guidelines (para 7.15), some components would be dovetailed into Action Plan from other schemes of the other departments such as micro irrigation, application of fertiliser, construction of irrigation tank, etc. However, it was not initiated by the Department.

The Department while accepting the Audit observation stated (October 2015) that dovetailing with other schemes would be done in future programmes.

2.4.12.7 MoU with GoI and District Implementing Authorities

According to para 12.2 of the NMMP Guideline, MoU between State and GOI, detailing the duties, responsibility and commitments of State and GOI was to be signed between GOI and the State Government for effective implementation of the scheme. The copies of

MoU were not available in the Department. Similarly, MoU between District implementing authorities and the State Government was also not initiated by the Department as of March 2015.

The Department stated (October 2015) that MoUs would be signed in due course.

2.4.12.8 End to end approach

End to end approach covering production, post-harvest management, processing and marketing was required to be initiated by the district authorities as per guidelines (Para-7.15). The Department had not initiated adequate measures to ensure end to end approach, especially post-harvest management. As a result, the farmers were not able to sell their produce as the forest Department was reluctant to issue permits to growers for sale outside the State. Similarly, synergy linkages with production and supply of quality planting materials, processing, quality testing, certification, warehousing as envisaged in the guidelines was not adequately attempted by the Department.

The Department while accepting the Audit observation stated (October 2015) that the post harvesting infrastructure were not created by the Department due to scattered cluster of medicinal plant growers.

2.4.13 Monitoring and Evaluation

Audit Objective-4:
To assess the adequacy and effectiveness of monitoring, evaluation and internal control mechanism.

2.4.13.1 Monitoring

Monitoring of programmes/schemes provide assurance that the organisation's objectives are being achieved and the entity is functioning in an economical, efficient and effective manner.

It was however, noticed that although the Department had carried out monitoring of schemes through field verification from time to time, schedule for monitoring/inspection were not drawn up and the monitoring reports of the inspections were not recorded for initiating corrective actions, if any.

The Department assured (October 2015) that this would be taken care of in future.

2.4.13.2 Internal Audit

Internal Audit occupies an important place in ensuring proper monitoring of schemes/programmes. This also provides assurances to higher management about the functioning of the Department. It was however, noticed that internal audit of the Department had not been conducted by the Directorate of Internal Audit, Finance, Revenue and Expenditure Department (FRED) even once during the review period.

The Department stated (October 2015) that the FRED would be requested to take up Internal Audit.

2.4.13.3 Evaluation

Evaluation of programmes and schemes implemented by the Department was not attempted even once in the last five years. This is despite the fact that all the important programmes such as HMNEH, NBM, NMMI and NMMP had components and funding provision for carrying out such evaluation studies by independent agencies.

The Department stated (October 2015) that this would be done in coming years.

2.4.14 Success story

Ms. Trishna T. Rai, aged 27 years, from Tangji-Bikmat GPU of South district with educational qualification of B Tech took up farming profession with land holding of 1.60 ha. She and her four family members cultivate Dutch Rose in 0.3 ha. Prior to intervention by the Department, production level was very low and the family had difficulty in proper maintenance of the plants and suffered from financial instability. At present, Ms Rai cultivates rose in 2,000 sqm area under protected cultivation mode and produces stem ranging between 13,000 and 20,000 fetching an annual income ranging between ₹ 65,000 and ₹ 1,00,000. She confided that this success was possible owing to support extended by the Department in the form of opportunity for participating in a training programme at Horticulture Training Centre, Pune; assistance for construction of hi-tech green house, planting material, bio-fertiliser, bio-pesticides, drip irrigation; and exposure on various technology for rose cultivation. Of late, she had become the leader in her village in the protected cultivation of high value crops and 60 more farmers of surrounding villages took up rose cultivation under protected condition.

Image 2.4.7

Image 2.4.8

Similarly, Shri Partaman Rai of Poklok-Denchung GPU of South District with land holding of 1.5 ha took up protected cultivation of tomato in 134 sqm area with assistance from Department in the form of inputs like seeds, organic manure, bio-pesticides and low cost bamboo green house with poly pipe and spray machine. His own investment included land, labour and Farm yard manure. Shri Rai started growing tomato crops by adopting new technology like growing seedlings in protray, applying plenty of organic manures and farm yard manures. Bio-pesticides, training and exposure trips increased his production manifold. Shri Rai had planted 270 nos. of tomato seedlings in his green house and harvested and sold 4,050 kg of tomato crop fetching ₹ 1.20 lakh per annum as against his earlier annual income of ₹ 10,000. Shri Rai has been emulated by 60 farmers who have started tomato cultivation in large-scale thereby raising their income.

2.4.15 Beneficiary survey

Audit carried out (August-September 2015) Beneficiary survey of 100 farmers consisting of 19 females and 81 males across the state. The farmers possessed land holding ranging from 0.1 ha to 4 ha and practiced integrated farming approach in horticulture along with agriculture, animal husbandry, etc. The earning from Horticulture ranged between ₹ 50,000 and ₹ 2,50,000 per annum. The survey revealed that the farmers had received inputs such as seeds, irrigation facilities, green houses, etc. from Department on time and were satisfied with the assistance and support extended by the Department. They highlighted the inadequacy of marketing facilities and requested for improvement in marketing facilities and setting up of collection centres. The farmers however, were dependent upon the Government for replacement of the infrastructure and other inputs for continuance in the farming profession.

2.4.16 Conclusion

Considering the varied topography, scattered and marginal land holdings of the farmers in Sikkim, horticultural crops possessed viable alternative in generating employment and supplementing farmers' income beyond subsistence level. The efforts of the Department through technological transfer, input and infrastructure support such as green houses, irrigation facilities, etc. had helped the farmers in supplementing their income. Some of the farmers have also excelled and earned income ranging between ₹ 0.50 and ₹ 2.5 lakh per annum. However, majority of the farmers were not able to come above the subsistence level primarily owing to small land holding and absence of adequate marketing facilities. The Department, however needed to accelerate conduct of base line survey, formulation of TSG, appropriate preparation of Perspective Plan and Annual Action Plans. The infrastructural facilities such as Integrated Floriculture Pack House, Sorting and Grading line for Sikkim mandarin, etc. should be put to their intended use. The mother blocks should be executed in CoEs to ensure contribution towards improved varieties of various crops as was done in Odisha, Haryana, etc. Suitable steps were required to be initiated to enhance the productivity of fruits, vegetables and spices to catch up with similarly placed States and all India average. This will help to realise full potential of the horticulture and make it an effective tool for accelerating development in the State. The Horticulture Development will receive further fillip once the Department initiates corrective actions in the areas of concern pointed out in this report.

2.4.17 Recommendation

- The Department should initiate action to frame Perspective plan to provide the roadmap for horticulture development. Annual Action plans should also be strengthened by incorporating project reports of all districts distinctly, export potential and detailed quantification of all inputs and outputs, base line survey and feasibility studies.

- The Department should initiate action to establish mother blocks in Centres of Excellence to contribute towards improved varieties of crops and grow more from less area.
- End to end approach should be initiated to provide all round support commencing from plantation till post-harvest to the farmers.
- Monitoring, evaluation and internal control mechanism should be strengthened to make it more effective.

ENERGY AND POWER DEPARTMENT

2.5 Avoidable expenditure due to retendering of work

Imprudent decision of the Department for re-tendering of work led to extra expenditure of ₹ 2.27 crore on execution.

North Eastern Council (NEC), Government of India approved (December 2011) the work of 'Up-gradation and strengthening of HT and LT lines and sub-stations at helipad area, Bakthang and adjoining places in East Sikkim' at an estimated cost of ₹ 4.63 crore which included the financial grant of 90 *per cent* (₹ 4.17 crore) from GoI. After obtaining (18 February 2012) approval of Government of Sikkim (GoS), the work was tendered (31 March 2012) by the Energy and Power Department (Department). The Department received 21 offers in the tender out of which 20 bidders quoted their rates below the Schedule of Rates, 2008 (SOR) value and only one bidder quoted 26.60 *per cent* above the SOR value.

Since the L1 rate obtained was 32.98 *per cent* below the SOR value, the Department called for explanations from the L1 bidder (Shri Bijay Agarwal). The L1 bidder justified (6 June 2012) his bid citing that he had the required materials[24] procured at a cheap cost, favourable location of work site would enable work to progress at faster pace and the firm was having less volume of work in hand. The Department, however, was not satisfied with the clarification of L1 bidder, and hence, scrapped (30 June 2012) the tender and decided to re-tender the work.

In the re-tendering of work, the Department received (27 August 2012) only three bids in which the L1 bidder (Shri Mukesh Agarwal) quoted lowest rate of 16.5 *per cent* above SOR 2008. After negotiation with the L1 bidder, the Department brought down the rate to 14 *per cent* above SOR. Accordingly, a work order for a value of ₹ 5.01 crore was issued

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[24] *Latticed structures, Aluminum conductors, Disc insulators, etc.*

(04 February 2013) in favour of the L1 bidder. The work was completed in September 2014.

In this connection Audit observed the following:

i. In the original tendering, out of the 21 bids received, 20 bidders (95 *per cent*) quoted the rates below the SOR ranging from 32.98 *per cent* to 1.5 *per cent* and only one bidder quoted above the SOR. Considering the above, the action of the Department to scrap the tender was not a prudent and justified decision under the given circumstances.

ii. While cancelling the original tender, the Department justified the action on the plea that the quality of work of L1 bidder might not be up to the mark due to the unreasonably lower rates quoted. In support of its decision, however, the Department did not cite any previous instances of poor or bad quality of work by the contractors concerned who had quoted rates below SOR. In this connection, it was also observed that during the same period, the Department had issued (August 2012) a work order[25] for similar work at a contract value of ₹ 4.68 crore which was at par with SOR value (SOR 2008). The said work had been completed in August 2013. This showed inconsistency in the action and decision making of the Department in the matter of awarding two works of similar nature for execution.

iii. While 21 bids were received in the original tender, only 3 were received in the re-tender. The bidder who was L1 in the scrapped tender had not submitted his bid in re-tender and 17 bidders who had participated in the original tender had not turned up for purchasing tender documents in the re-tender even though their application were found eligible for issuing the tender documents. The position stated above was indicative of the fact that the re-tendering of the work proved to be less competitive.

Thus, the imprudent decision of the Department to go for re-tendering of work had resulted in an extra expenditure of ₹ 2.27 crore[26] on execution of works which was avoidable.

In reply, the Department stated (September 2015) that the work was put to re-tender as it was found that majority of the bidders had quoted the rates arbitrarily with no knowledge of the technical parameters of the work including site conditions. Since the estimate for the work was based on SOR 2008 cost escalation over the years was inevitable and thus feasibility of executing the work duly maintaining the quality seemed to be questionable. It was further stated that the majority of the bidders who had quoted in the original tender had not executed any major works in the Department. The extra expenditure due to re-tendering as pointed out by the Audit is a matter of perception as the quality of work could have been compromised due to lack of expertise besides the probability of time and cost overrun.

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[25] *Work of conversion of existing 440v LT distribution overhead lines including service connection in to UG system at Gyalshing Bazar and its surrounding area in West Sikkim.*

[26] *Work order value ₹5,01,26,857 – (value put to tender ₹4,08,76,273 – 32.98 per cent below as quoted in the original tender ₹1,34,80,995) = ₹2,27,31,579.*

The reply is not acceptable in view of the fact that all bidders who had participated in the original tender were registered electrical contractors with the Department. Moreover, the Department did not mention about the difficult site conditions and the required technical expertise in the original tender which indicated that the work was of a standard/regular nature. Further, while scrapping the original tender due to lower quotes, the Department did not verify the justification put forth by the L1 bidder for quoting bids below SOR, which establishes the fact that the decision of the Department for re-tendering of work lacked prudency.

2.6 Interest on Mobilisation Advance not recovered

Failure of the Department to communicate the Government approved terms for release of Mobilisation Advance (MA) to the contractor led to non-recovery of interest of ₹ 2.79 crore on MA.

The Energy and Power Department (Department), Government of Sikkim had taken up (December 2006) the work of "Construction of 132 KV transmission line from 132/66 KV sub-station near Lower Lagyap Hydel Project (LLHP) to Sherathang in East Sikkim" at an estimated cost of ₹ 31.01 crore. The Ministry of Development of North East Region (MDONER), Government of India was to provide the financial assistance to the extent of 90 *per cent* (₹ 27.91 crore[27]) of the project cost by way of grants. The work was awarded (28 February 2007) through tendering to L1 bidder (Contractor) at a negotiated rate of ₹ 29.98 crore with a scheduled completion period of 24 months (February 2009).

Subsequently, the Contractor requested (March 2007) for grant of Mobilisation Advance (MA) for the project on the plea that the work involved the procurement of costly equipment. Since there was no provision in the Sikkim Financial Rules (SFR) or Public Works Department (PWD) code for release of MA to work contractors, the Department sought (March 2007) the approval of the Government of Sikkim (GoS) in this regard.

The GoS approved (30 March 2007) release of MA amounting to ₹ 6.77 crore against furnishing of Bank Guarantee by the Contractor for equivalent amount and subject to recovery of simple interest at the rate of 5 *per cent* per annum from the Contractor on the MA so provided.

Accordingly, the Department released (31 March 2007) ₹ 6.77 crore as MA to the Contractor after obtaining the Bank Guarantee[28] of equivalent value. The Department, however, had neither communicated nor had entered into any formal agreement with the Contractor regarding levy of interest at 5 *per cent* per annum on the MA.

Audit observed that although the Department had recovered/adjusted MA (June 2015) of ₹ 6.77 crore from the running bills of the contractor, simple interest amounting to

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[27] *Under Non-Lapsable Central Pool of Resources (NLCPR).*

[28] *(BG No.184-186/2007 dated 31 March 2007).*

₹ 2.79 crore on the MA for the period from April 2007 to June 2015 had not been recovered till October 2015.

Thus, failure of the Department to recover interest on MA provided to the Contractor in violation of the directions of GoS led to loss of ₹ 2.79[29] crore to the exchequer.

The Department replied (August 2015) that levy of interest on MA was moved by the Department at the time of seeking Government approval but it was found at a later stage that there is no provision in the SFR and as such it was not enforced. While appreciating the audit observation, the Department stated that the audit observation has been noted for future.

The reply is not acceptable in view of the fact that the approval of Government for release of MA was specific on levy of interest at the rate of 5 *per cent* per annum. Hence, the Department should have obtained prior approval of the Government for not enforcing the condition regarding levy of interest on MA.

ROADS AND BRIDGES DEPARTMENT

2.7 Avoidable expenditure

The unwarranted inclusion of item of work Water Bound Macadem (WBM)-III in addition to WBM-I and WBM-II led to extra avoidable expenditure of ₹ 2.32 crore in 16 works.

The various structures in flexible pavement in construction of road works in terms of Indian Road Congress (IRC) as well as Central Public Works Department (CPWD) specification consists, *inter-alia*, of (i) Sub-grade; (ii) Sub-base course; (iii) Base course and (iv) Surface course. **Sub-grade** is the surface of the ground in its final shape after completion of earthwork and consolidation, compaction or stabilisation, **Sub-base course** is a WBM (Water Bound Macadem) laid over the sub-grade with stone aggregate of 90 mm to 45 mm size (WBM-I). **Base course** is also a WBM to be laid either with stone aggregates of 63 mm to 45 mm (WBM-II) or with stone aggregates of sizes 53 mm to 22.4 mm size (WBM-III) with screening. These are the standard base courses used in road works. **Surface course** may, *inter-alia*, consist of surface dressing with hot bitumen or premix carpeting with hot bitumen or bituminous macadam using hot mix plant and paver equipment.

As would be seen from the above specifications, after the Sub-base formation with WBM-I, the standard base courses prescribed for road works, other than National Highways and City Roads with high traffic density, are either water bound macadam with

[29] *₹ 6.77 crore x 5/100 x 99/12 months = ₹ 2.79 crore.*

stone aggregates of size of 63 mm to 45 mm (WBM-II) or 53 mm to 22.4 mm size (WBM-III) with appropriate screening and binding materials. Thus, the use of both the specifications of WBM-II and WBM-III was beyond the prescribed norms.

Scrutiny of records of the Roads and Bridges Department revealed that during February to November 2014, the Department incorporated the item WBM-III also in addition to WBM-I and WBM-II in 16 works. Since only one out of the two courses of WBM-II and WBM-III at base level was prescribed in IRC as well as CPWD specifications, inclusion of 16,753.916 cum of WBM-III was unwarranted with consequential extra avoidable expenditure of ₹ 2.32 crore as detailed in the **Appendix 2.7.1**.

The matter was reported to Department/Government (May 2015); their reply had not been received (October 2015).

2.8 Undue benefit to the contractor

Non-adherence to the provision of SPW Manual in tendering process, absence of competitive bidding and award of work at abnormally higher tender rate over and above Schedule of Rates (SOR) 2012 rates resulted in an extra expenditure with consequential undue financial benefit to the contractor to the tune of ₹ 2.27 crore and further committed extra benefit of ₹ 5.21 crore on residual work.

The work "*Upgradation and carpeting of Namchi-Phong-Mamring road in South Sikkim*" was approved and sanctioned (February 2013) by Government of India (GOI), Ministry of Development of North Eastern Region at a total cost of ₹ 47.71 crore under Non-Lapsable Central Pool of Resources (NLCPR) with stipulation that completion was to be ensured within 36 months (i.e. by February 2016). The project cost was to be shared between the GOI and the State in the ratio of 90:10, i.e. Centre: ₹ 42.94 crore and the State: ₹ 4.77 crore.

The work was put to e-tender on 6 April 2013 and only two bidders[30] with rates of 69.19 *per cent* and 82.74 *per cent* above the SOR 2012 participated in the Bid (which was opened on 21 June 2013). Despite participation of less than the mandatory number of three required under the Sikkim Public Works (SPW) Manual [Section 9.6(vi)], that too, with very high and imbalanced tender, the Department validated the tender. The rate of 69.19 *per cent* as above, offered by M/s MSR Infrabuild (JV) being lower of the 2 bids received, was accepted for consideration.

The estimate being based on SOR 2012, the Department carried out (July 2013) rate analysis[31] applying the FIDIC formulae and found that the cost escalation/difference of cost for one year (between 2012, the year of SOR and 2013, the year of tender) would be

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30 *M/s MSR Infrabuild (JV) and M/S SP Enterprise (JV).*

31 *Work analysis was done adopting the FIDIC (The International Federation of Consulting Engineers, having French acronym of "Federation Internationale Des Ingenieurs Conseils") formulae which was notified (25 April 2012) by the Department itself using whole sale price index for all items from the official website of the office of the Economic Adviser, GOI and from the official site of MoSPI, GOI.*

5.45 *per cent* only indicating that the lowest bid of 69.19 *per cent* above was very high and imbalanced. Despite being aware of the reasonable/workable rate, instead of rejecting the exorbitantly high tender and inviting fresh tenders as per provision of SPW Manual for ensuring competitive and valid bidding, the Department again analysed (July 2013) the rates. This time, the differential rate between SOR 2012 and the prevailing market rate during May-June 2013 was worked out at 28.42 *per cent* which was remarkably higher than the initial rate worked out at 5.45 *per cent*.

Audit scrutiny of 'workability analysis' of 28.42 *per cent* above revealed that the Department had taken higher cost for all the materials than prevailing market rate, added excess differential cost of 23.56 *per cent* towards cost of POL and enhanced the labour cost by 28.32 *per cent*. This was not justifiable as (i) the issue rates of stock materials (fixed on the basis of Proforma Invoice received from STCS) during the same period, were lower than those taken by the Department; (ii) the higher rate of POL was already considered (in-built) for arriving at the total differential cost of materials, hence there was no need to add extra differential cost; (iii) the total enhancement of 28.32 *per cent* in labour cost within a period of one year was also not acceptable as all labour payments in respect of departmentally executed works were being paid at the prevailing rate of SOR 2012; (iv) another work "*Upgradation of Rongli-Rorathang road"* with estimated cost of ₹ 17.75 crore based on SOR 2012 and tendered in April 2013 was awarded to a contractor[32] at 7 *per cent* below by the Department and (v) as worked out by the Audit, taking the prevalent market rate of cost of materials and issue rates[33] fixed by the Department and operative during the period, the total enhancement/cost escalation was only 3.74 *per cent* above the SOR rate of 2012.

In the meantime, the tendered rate of 69.19 *per cent* above was further negotiated and finalised at 21.50 *per cent* above. The work order was issued (October 2013) at the negotiated tendered value at ₹ 56.80 crore with the stipulated date of completion of 36 months (October 2016). Work valuing ₹ 24.07 crore (42 *per cent*) was completed and the payment released as of February 2015.

Thus, despite working out the workability rate of 5.45 *per cent* adopting the FIDIC formulae based on National Price Index being followed by the Department for working out the cost escalation and without ensuring the reasonability of rate through competitive offers from at least three tenderers as required under SPW Manual, the Department awarded the work at a very high rate of 21.50 *per cent* above (higher by 16 *per cent* as compared to 5.45 *per cent* above worked out by Department itself). The reasonability of the rate of 5.45 *per cent* based on FIDIC formulae also corroborated with the workability rate analysis of less than 4 *per cent* as worked out by the Audit. This resulted in an extra expenditure with consequential undue financial advantage to the contractor to the tune of ₹ 7.48 crore (out of which ₹ 2.27 crore had already been paid to the contractor and ₹ 5.21 crore remaining as extra committed liability on residual work).

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[32] *Smt. Devi Dhakal.*

[33] *Issue rate was fixed by the Department on the basis of Performa Invoice received from STCS.*

The matter was reported (May 2015) to the Government/Department; their reply had not been received (October 2015).

RURAL MANAGEMENT AND DEVELOPMENT DEPARTMENT

2.9 Avoidable expenditure

Unrealistic assessment of damaged houses, improper planning and execution of works resulted in delay in reconstruction of houses, failure in extending intended benefits of providing emergent shelters to displaced victims due to earthquake. Avoidable expenditure of ₹ 1.09 crore was also incurred.

The Rural Management and Development Department (RMDD) submitted (November 2011) Detailed Project Report to the Planning Commission of India through Land Revenue and Disaster Management Department for reconstruction of 7,972 fully/severely damaged houses at an estimated cost of ₹ 455.51 crore[34] after the earthquake in Sikkim on 18 September 2011. The Planning Commission of India approved (January 2012) the project "Reconstruction of Earthquake Damaged Rural Houses" (REDRH) under Prime Minister's Special package which was subsequently revised (January 2012) and reduced to ₹ 391 crore (₹ 389.80 crore for construction and ₹ 1.20 crore for IEC) at unit cost of ₹ 4.89 lakh per house. The work was to be executed by RMDD through Gram Vikash Kendras (GVKs).

7,972 damaged houses were again redistributed among all four districts of Sikkim after noticing faulty distribution of houses in these districts. Such reallocation of houses amongst the districts indicated the fact that initial survey on assessment of damage of houses caused by earthquake was not based on ground realities and thus, it was unrealistic.

The Department initially took a decision (April 2012) to execute the entire work of reconstruction of 7,972 earthquake damaged houses on *Departmental Model* under which the execution and the procurement of materials were to be entirely undertaken by the Department without involving the beneficiary based on State PWD Schedule of Rates (SOR) of 2006. However, it could not make much headway and the Department adopted (December 2012) another model, i.e. *Joint Model* where the materials were to be supplied by the Department through State Trading Corporation of Sikkim (STCS) and Sikkim State Cooperative Supply and Marketing Federation Limited (SIMFED) and the

[34] *₹ 453.61 crore for reconstruction and ₹ 1.90 crore for Information, Education and Communication (IEC) and Training related activities.*

beneficiaries were to get construction work executed. The Joint Model also failed due to delay in supply of materials. Finally, the Department adopted (October 2013) another model, i.e. *Self Purchase Model* where complete work relating to construction were to be done by the beneficiaries themselves.

In its meeting dated 06 September 2012, the Planning Commission of India had fixed the target date (March 2013) for 50 *per cent* completion of reconstruction of 7,972 damaged houses. While reviewing the progress of work under the National Flagship Programme (12 September 2013), the Planning Commission instructed that the house constructions should be expedited and completed by March 2014. However, as of November 2014, only 2,765 houses (34.69 *per cent*) were completed and 5,207 houses remained incomplete at different stages. Thus, even after a lapse of three years, the Department failed to provide necessary emergent shelters to 5,207 affected families. The reasons behind the inordinate delay were faulty distribution of houses among districts as stated above, delay in executing the suitable model for the project, delay in supply of materials by STCS and SIMFED, shortage/non-deployment of technical persons like Junior Engineers in GVKs and frequent transfer of officers. The delay resulted in cost escalation of cement and TMT bars to the tune of ₹ 1.09 crore[35] against the payments made till the date of Audit (February 2015) due to time and cost overrun.

Thus, delay in completion of projects not only led to failure in extending intended benefits of providing immediate shelters to displaced victims due to earthquake but also led to an avoidable expenditure of ₹ 1.09 crore, which would considerably increase after all the works get completed/payments made.

The Department stated (June 2015) that besides non-release of requisite fund by the Government of India (GOI), the initial survey was made by the Land Revenue and Disaster Management Department (LRDMD) and the re-distribution was made on the basis of Gram Sabha meetings held by the Department, which resulted in delay in finalisation of beneficiaries. 174 Junior Engineers were appointed (June 2012 and October 2013) and all AEs/JEs were trained. It was, further stated that the purchase of materials between 2012 and 2014 were within the project period and hence cannot be indicated as cost overrun and time overrun.

The reply was not tenable as there was faulty identification of beneficiaries of houses among districts and re-distribution caused delay in execution of work. Further, despite deploying huge manpower, the Department failed to complete the houses within the scheduled time of March 2014. The reasons for non-release of fund by the GOI was not acceptable as the Department could spend ₹ 213.86 crore out of ₹ 231.04 crore received from GOI till July 2015. As regards cost escalation, there were differences in the rates mentioned in supply orders and those at which final payments had been made indicating cost overrun due to delay in supply of materials by STCS.

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[35] *Cement ₹ 1.02 lakh and TMT bars ₹ 0.6 crore.*

SIKKIM HOUSING DEVELOPMENT BOARD

2.10 Non-recovery of loan

Failure to recover and adjust the outstanding loans against the retirement/terminal benefits of the Government employees led to non-recovery of loan to the tune of ₹ 63.94 lakh over a period since May 1994. Also, ₹ 33.57 lakh given to 6 ineligible private persons remained to be recovered and no action had been initiated in respect of 59 employees against the outstanding loan of ₹ 23.51 lakh from the Government employees on roll.

The Sikkim Housing Development Board (SHDB), a Government of Sikkim Enterprise, implemented a Housing Loan Scheme for construction of house/purchase of flat for employees of Government of Sikkim during 1989 to 1997. As per terms and condition, the instalments of loans were required to be deducted from the salary of loanee employees. SHDB was required to obtain an undertaking from Drawing and Disbursing Officers (DDOs) of concerned offices that in case, any loanee employee working in his office applies for resignation from service, the same should not to be accepted until a 'No Objection Certificate' (NOC) from SHDB is produced by the employee.

Scrutiny of records revealed that an amount of ₹ 1.21 crore (out of ₹ 36.61 crore) disbursed during 1990 to 1997 to 103 loanee employees (out of 6,329) was not recovered since May 1994. The Board initiated legal action only in 15 cases leaving 88 cases without any action as mentioned below:

Table 2.10.1

Defaulter loanees	No. of cases	Amount outstanding (*₹ in lakh*)	Cases taken to Court		No action
			Certificate	Under trial	
Government employees not in service	35	63.94	2	6	27
Government employees in service	62	23.51	1	2	59
Private	6	33.57	2	2	2
Total Defaulters	**103**	**121.02**	**5**	**10**	**88**

Scrutiny of records revealed that 35 employees left service/suspended/retired/got terminated/ expired before the settlement of outstanding loans to the tune of ₹ 63.94 lakh (including interest/penal interest) and the outstanding loanees included 6 private individuals against whom ₹ 33.57 lakh was not recovered. The Board was also not aware about the present status of two Government employees suspended in November 1995 and January 2004. Against the outstanding loan of ₹ 23.51 lakh from 62 employees still on roll, no action had been initiated against 59 employees till June 2015. The details are given in **Appendix 2.10.1**.

Thus, inadequate monitoring on monthly recovery by the DDOs, non-pursuance through NOCs, loans to ineligible private persons without proper mortgage, initiating recovery process in only 15 out of 103 cases, absence of follow-up in safeguarding financial interest of the Board, the possibility of recovery of outstanding loans to the tune of ₹ 1.21 crore being defaulted since May 1994 has become remote.

In reply the Board stated (May 2015) that the matter is sub-juice under Sikkim Public Demand Recovery Act (SPDRA) to recover the loan from defaulters. The Board further stated (August 2015) that efforts are being made to get the entire loan settled within 2-3 years. However, fact remained that at present only 15 out of 103 cases were pursued under SPDRA, ₹ 33.57 lakh was given to ineligible persons, timely action was not taken by the Board for recovery of ₹ 1.21 crore and possibility of recovery from employees not in service to the tune of ₹ 63.94 lakh seems remote.