

4.1 Overview of State Public Sector Undertakings

Introduction

4.1.1 State Public Sector Undertakings (SPSUs) consist of State Government Companies and Statutory Corporations. SPSUs are established to carry out activities of commercial nature while keeping in view the welfare of the people. In Arunachal Pradesh, there were seven SPSUs (all Government Companies, including two non-working Companies). None of these Companies were listed on the Stock Exchange.

4.1.2 The working SPSUs registered a turnover of ₹ 7.57 crore for 2012-13 as per their latest finalized accounts as of September 2013. This turnover was equal to 0.06 *percent* of the State Gross Domestic Product (GDP).[♦] Thus, the SPSUs make an insignificant or negligible contribution to the State's economy. Major activities of Arunachal Pradesh SPSUs are concentrated in the Finance and Power Sectors. The working SPSUs incurred an overall loss of ₹ 5.59 crore in aggregate for 2012-13, as per their latest finalized accounts as on 30 September 2013. They employed 216[♦] employees as on 31 March 2013. The SPSUs did not include prominent Departments which performed activities of a commercial nature, such as Power, Hydro-Power Development, Transport or Supply & Transport. However, Audit findings on these Government Departments are incorporated in this Chapter.

Audit Mandate

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

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

[♦] State GDP figures in respect of 2012-13 are taken at Factor Cost by Industry of Origin at Current Prices

[♦] As per details provided by five PSUs.

Investment in SPSUs

4.1.5 As on 31 March 2013, the investment (capital and long-term loans) in seven SPSUs[#] was ₹ 30.63 crore, as per details given below.

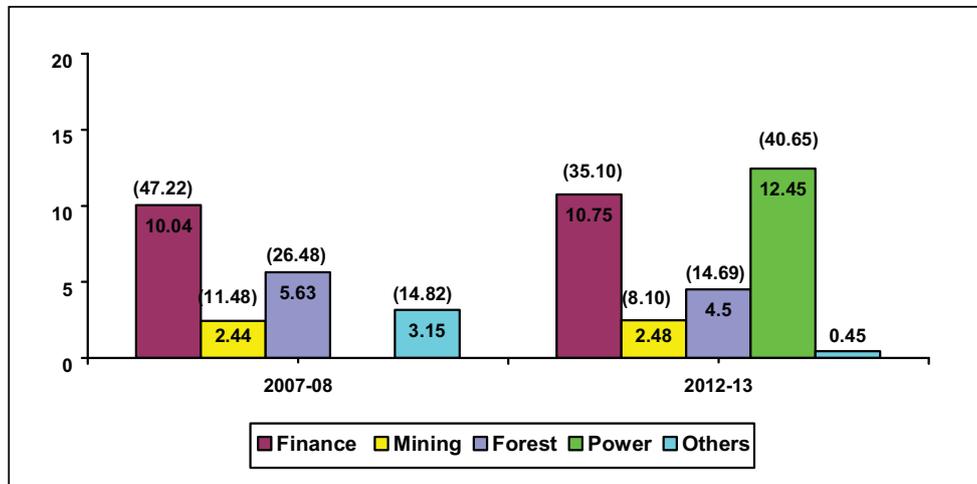
(₹ in crore)

Type of SPSUs	Government Companies		
	Capital	Long Term Loans	Grand Total
Working SPSUs	21.60	8.60	30.20
Non-working SPSUs	0.43	-	0.43
TOTAL	22.03	8.60	30.63

The position of Government investment in SPSUs is summarized in **Appendix-4.1**.

4.1.6 As on 31 March 2013, out of the total investment in SPSUs, 98.6 percent was in working SPSUs and the remaining 1.4 percent in non-working SPSUs. This total investment consisted of 71.92 percent towards capital and 28.08 percent in long-term loans. The investment has increased by 44.07 percent from ₹ 21.26 crore in 2007-08 to ₹ 30.63 crore in 2012-13, as shown in the following Graph.

4.1.7 Investment in various important sectors and percentage thereof at the end of 31 March 2008 and 31 March 2013 is indicated below in the Bar Diagram.



(Figures in brackets show the percentage of total investment)

It may be noticed that the thrust of SPSU investment was mainly in the Finance and Power Sectors, which had 35.10 and 40.65 percent of investment respectively as on 31 March 2013. Among all sectors, the Power Sector had the highest investment of ₹ 12.45 crore. The Power Sector investment represented the equity contribution made

[#] The State has no 619-B Company.

by the State Government in the only Power Sector SPSU, namely, Hydro Power Development Corporation of Arunachal Pradesh Limited.

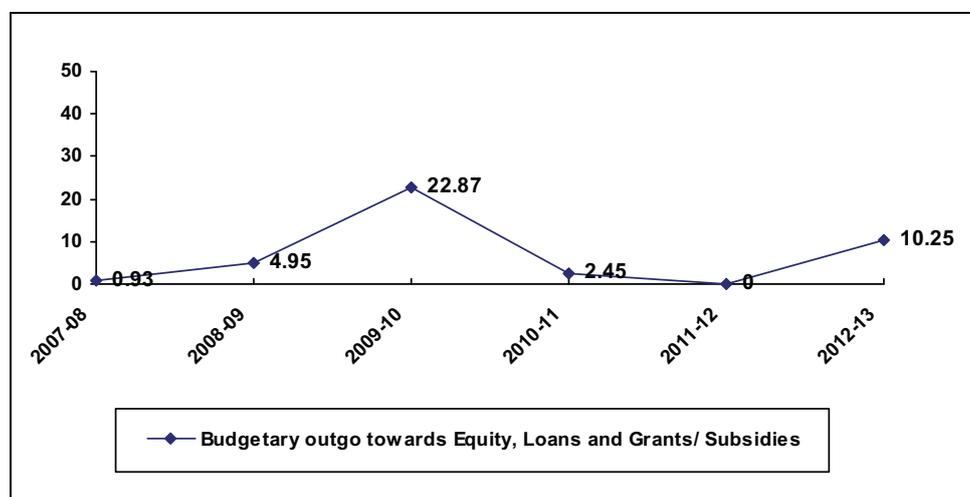
Budgetary Outgo, Grants/Subsidies, Guarantees and Loans

4.1.8 Details regarding budgetary outgo towards Equity, Loans, Grants/Subsidies and Guarantees issued in respect of SPSUs are given in **Appendix - 4.3**. During 2012-13, no financial assistance was provided by the State Government to any of the SPSUs out of the State budget. Summarized details for three years ended 2012-13 are as follows:

(₹ in crore)

Sl. No.	Particulars	2010-11		2011-12		2012-13	
		No. of SPSUs	Amount	No. of SPSUs	Amount	No. of SPSUs	Amount
1.	Equity Capital Outgo from Budget	-	-	-	-	-	-
2.	Loans from Budget	-	-	-	-	-	-
3.	Grants/Subsidies Received	1	2.45	-	-	2	10.25
4.	Total Outgo (1+2+3)	-	2.45	-	-	-	10.25
5.	Guarantees Issued	-	-	-	-	-	-
6.	Guarantee Commitment	1	2.00	1	2.00	1	2.00

4.1.9 Details regarding budgetary outgo towards Equity, Loans and Grants/Subsidies for the past six years are given in a Graph below.



4.1.10 It can be seen from the above that budgetary outgo was highest in 2009-10 at ₹ 22.87 crore during the six year period from 2007-08 to 2012-13. However, the budgetary outgo reduced thereafter and was at 10.25 during 2012-13. As on 31 March 2013, guarantee commitment of ₹ 2 crore extended by the State Government to one SPSU - *Arunachal Pradesh Industrial Development & Financial Corporation Limited* - was yet to be availed by the said SPSU. No guarantee commission was

payable to the State Government by SPSUs. There was no case of conversion of Government loan into equity, moratorium in repayment of loan and waiver of interest.

Reconciliation with Finance Accounts

4.1.11 Figures in respect of equity and loans as per records of SPSUs should agree with the figures appearing in the Finance Accounts of the State. In case the figures do not agree, the concerned SPSUs and the Finance Department should carry out reconciliation of differences. The position in this regard as on 31 March 2013 is shown below.

(₹ in crore)

Outstanding in respect of	Amount as per Finance Accounts	Amount as per records of SPSUs	Difference
Equity	9.04	22.03	12.99
Loans	-	8.60	8.60

4.1.12 It was observed that there were differences in respect of all SPSUs and they were pending reconciliation over a period of more than ten years. The Accountant General has taken up the matter from time to time with the Secretary, Finance Department, Government of Arunachal Pradesh, Administrative Departments of respective SPSUs and Managing Directors of SPSUs for reconciliation of the differences. However, no significant progress in this direction was noticed. The Government and SPSUs should take concrete steps to reconcile the differences in a time-bound manner.

Performance of SPSUs

4.1.13 The financial results of SPSUs are detailed in **Appendix 4.2**. A ratio of SPSU turnover to State GDP shows the extent of SPSU activities in the State economy. The Table below shows details of working SPSUs turnover and State GDP from 2007-08 to 2012-13.

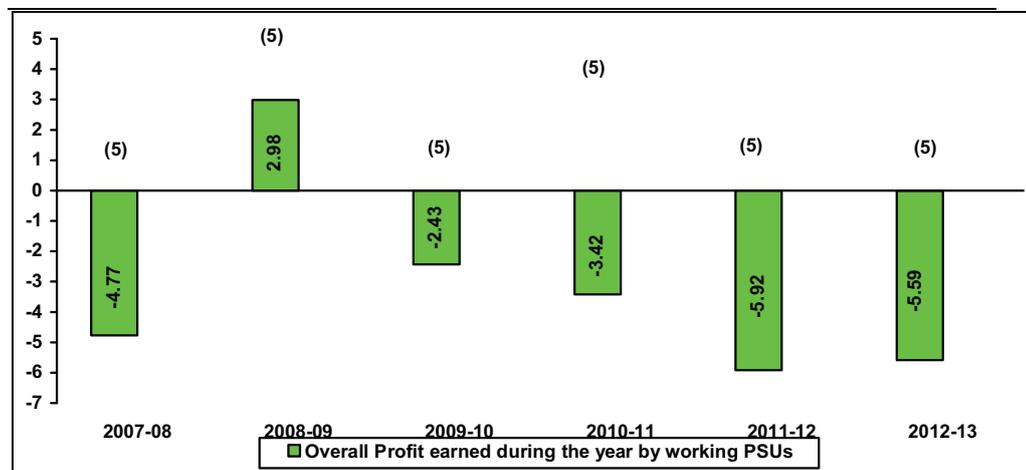
(₹ in crore)

Particulars	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Turnover [∞]	5.72	5.57	7.79	6.37	5.82	7.57
State GDP	3888	4547	6258	8350.16	11135.53	11942.81
Percentage of Turnover to State GDP	0.15	0.12	0.12	0.08	0.05	0.06

It can be seen that the percentage of turnover to State GDP was on a declining trend and reduced from 0.15 in 2007-08 to 0.06 in 2012-13, which indicated that the annual increase in turnover was not commensurate with the annual growth in the State GDP.

[∞] Turnover of working PSUs as per the latest finalized accounts as of 30 September 2013.

4.1.14 Profit earned/losses incurred by working SPSUs during 2007-08 to 2012-13 are given below in a Bar Diagram:



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

4.1.15 It may be noticed that Working SPSUs showed overall adverse working results during the six year period ending 2012-13, except during 2008-09. The overall losses of Working SPSUs reached its peak during 2011-12 at ₹ 5.92 crore during the six year period. During 2012-13, out of five working SPSUs, two SPSUs earned profits of ₹ 3.37 crore and three SPSUs incurred losses of ₹ 8.96 crore. The contributors to profit were *Arunachal Police Housing and Welfare Corporation Limited* (₹ 2.87 crore) and *Hydro Power Development Corporation of Arunachal Pradesh Limited* (₹ 0.50 crore), while heavy losses were incurred by *Arunachal Pradesh Forest Corporation Limited* (₹ 7.13 crore).

4.1.16 The losses incurred by SPSUs and State Government Departments, as highlighted in the Audit Reports of CAG each year, were mainly attributed to deficiencies in financial management, planning, implementation of projects, running of operations and monitoring. A review of the latest Audit Reports of the CAG showed that working State SPSUs and Government Departments - *Power, Hydro-Power, Transport and Supply & Transport* - incurred losses to the tune of ₹ 11.80 crore and made infructuous investments of ₹ 10.89 crore, which could have been avoided with better management. Year-wise details from Audit Reports are given below.

Particulars	(₹ in crore)			
	2010-11	2011-12	2012-13	Total
Controllable losses as per Audit Report	10.58	0.61	0.61	11.80
Infructuous Investment	2.03	6.04	2.82	10.89

4.1.17 The above losses pointed out by Audit Reports of the CAG were based on test check of records of SPSUs/Government Departments - *Power, Hydro-Power,*

Transport and Supply & Transport. Actual controllable losses would be much more. With better management, the losses shown in the Table above could be minimized/eliminated and profits enhanced substantially. SPSUs/Government Departments would be able to discharge their roles efficiently only if they are financially self-reliant. The above situation points towards a need for professionalism and accountability in the functioning of SPSUs/ Government Departments.

4.1.18 Some other key parameters pertaining to SPSUs are given below.

(₹ in crore)

Particulars	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Return on Capital Employed (<i>percent</i>)*	--	6.09	--	--	--	--
Debt	11.76	9.87	10.33	11.69	11.42	8.60
Turnover ^r	5.72	5.57	7.79	6.37	5.82	7.57
Debt/Turnover Ratio	2.06:1	1.77:1	1.33:1	1.84:1	1.96:1	1.14:1
Interest Payments	0.03	0.39	0.78	0.25	0.15	1.22
Accumulated Profits (losses)	(-) 3.19	2.64	4.06	(-) 3.73	(-) 16.30	(-) 22.47

4.1.19 It may be noticed that the turnover of working SPSUs during 2007-13 showed a decreasing trend (except in 2009-10). However, debt figures of SPSUs decreased during three out of the six years. As a result, the Debt/Turnover Ratio improved from 2.06:1 (2007-08) to 1.14:1 (2012-13).

Further, returns on capital employed were negative throughout the of six year period from 2007-08 to 2012-13, except for 2008-09, on account of negative working results of the SPSUs.

4.1.20 The State Government had not formulated (November 2013) any dividend policy to make it mandatory for SPSUs to pay a minimum return on the paid-up share capital contributed by the State Government.

Arrears in Finalization of Accounts

4.1.21 Under Sections 166, 210, 230, 619 and 619-B of the Companies Act, 1956, accounts of Companies for every financial year are required to be finalized within six months from the end of the relevant financial year. The Table below shows details of progress made by working SPSUs in finalization of accounts by September 2013.

* Nil figures represent negative return on capital employed.

^r Turnover of working PSUs as per latest finalized accounts as of 30 September 2013.

Sl. No.	Particulars	2008-09	2009-10	2010-11	2011-12	2012-13
1.	Number of Working SPSUs	5	5	5	5	5
2.	Number of accounts finalized during the year	1	5	7	6	5
3.	Number of accounts in arrears	31	31	29	28	28
4.	Average arrears per SPSU (3/1)	6.2	6.2	5.8	5.6	5.6
5.	Number of Working SPSUs with arrears in accounts	5	5	5	5	5
6.	Extent of arrears in years	1 to 15	1 to 16	1 to 15	1 to 15	1 to 15

4.1.22 It may be seen that the average number of accounts in arrears per SPSU was very high in all the five years, and ranged between 5.6 and 6.2 accounts per working SPSU. Delays in finalization of accounts were mainly attributable to inadequacy of manpower and abnormal delays in compilation/approval of Annual Accounts by the SPSUs. Arunachal Pradesh Mineral Development and Trading Corporation Limited had the highest arrears in accounts of 15 years (since 1998-99). In addition, there were also arrears in finalization of accounts by non-working SPSUs. The two non-working SPSUs had arrears of accounts for 6 to 7 years.

4.1.23 The State Government invested an aggregate amount of ₹ 60.48 crore in five SPSUs (Equity - ₹ 5.73 crore; Loans - ₹ 2.87 crore; Grant/Subsidy - ₹ 40.27 crore; and Others - ₹ 11.61 crore) during the years for which accounts were not finalized, as detailed in **Appendix - 4.4**. Delays in finalization of accounts run the risk of fraud and leakage of public money, apart from violation of provisions of the Companies Act, 1956.

4.1.24 Administrative Departments have the responsibility to oversee activities of these SPSUs and to ensure that accounts are finalized and adopted by them within the prescribed period. Attention of concerned Administrative Departments and the Government on the issue of arrears in finalization of accounts was regularly drawn by the Accountant General on a quarterly basis, emphasizing the need for clearing of arrears. The issue was also periodically taken up with the Chief Secretary/Finance Secretary, Government of Arunachal Pradesh, to expedite the backlog of accounts in a time-bound manner. However, no significant progress was noticed. As a result, the net worth of these SPSUs could not be assessed in audit.

In view of the above position of arrears, it is recommended that:

The Government should monitor and ensure timely finalization of accounts by State SPSUs in conformity with provisions of the Companies Act, 1956.

Winding up of Non-Working SPSUs

4.1.25 There were two Non-working SPSUs in the State as on 31 March 2013. Both of the non-working SPSUs had commenced the liquidation process. Both the Non-working SPSUs - *Parasuram Cement Limited* and *Arunachal Horticultural Processing Industries Limited* - need to be wound up at the earliest as their existence does not serve any purpose to the State.

Comments on Accounts and Internal Audit

4.1.26 Five Working Companies forwarded their five audited accounts to the Accountant General during 2012-13. Non-Review Certificates were issued on all five Accounts. During 2012-13, no Company was selected for Supplementary Audit. Details of aggregate money value of comments of Statutory Auditors and the CAG are given below.

(₹ in crore)

Sl. No.	Particulars	2009-10		2010-11		2011-12	
		No. of Accounts	Amount	No. of Accounts	Amount	No. of Accounts	Amount
1.	Decrease in Profit	1	2.80	-	-	-	-
2.	Increase in Loss	1	4.17	-	-	-	-
3.	Increase in Profit	-	-	-	-	-	-
4.	Non-disclosure of material facts	1	1.53	-	-	-	-
5.	Errors of Classification	-	-	-	-	-	-
6.	General	1	-	-	-	-	-

4.1.27 Statutory Auditors (Chartered Accountants) were required to furnish a detailed report upon various aspects, including Internal Control/Internal Audit System in the audited Companies, in accordance with directions issued to them by the CAG under Section 619(3) (a) of the Companies Act, 1956, and to identify areas which needed improvement. An illustrative resume of major comments made by Statutory Auditors on possible improvement in the Internal Control/Internal Audit System in respect of three Companies - *Arunachal Pradesh Industrial Development and Financial Corporation Limited*, *Arunachal Pradesh Forest Corporation Limited* and *Arunachal Pradesh Mineral Development and Trading Corporation Limited* - during 2012-13 was as follows.

Sl. No.	Nature of comments made by Statutory Auditors
1.	Absence of a credit policy, policy of providing for doubtful debts/write-off and liquidated damages.
2.	Deficiency in the internal audit system, i.e., frequency and scope of audit needed to be increased. Compliance mechanism needed to be strengthened.
3.	Absence of an internal audit system commensurate with the nature and size of business of the Company

Reforms in the Power Sector

4.1.28 A single Member Electricity Regulatory Commission was formed (February 2011) in Arunachal Pradesh under provisions of Section 83 of the Electricity Act, 2003, with the objective of rationalisation of Electricity Tariff, advising in matters relating to electricity Generation, Transmission/Distribution in the State and issue of Licenses.

4.1.29 A Memorandum of Agreement (MoA) was signed (July 2002) between the Union Ministry of Power and the State Government with a joint commitment for implementation of a reforms programme in the Power Sector with identified milestones. Progress achieved so far in respect of important milestones is shown below:

Sl. No.	Milestone	Achievement as at March 2013
1.	Corporatization of the Electricity Department by 2006-07	Dept. of Power (DoP) and Dept. of Hydro Power Development (DHPD) are not yet corporatized (Dec. 2013).
2.	Setting up of a State Electricity Regulatory Commission (SERC)	A Single Member Electricity Regulatory Commission constituted (May 2010) and Chairman took charge in February 2011.
3.	State Government will ensure timely payment of subsidies required in pursuance of orders on the tariff determined by SERC.	APSERC fixed (May 2013) the Tariff Order for the financial year 2013-14.
4.	State Government will achieve 100 % electrification of villages by 2007.	3231 out of 4593 villages (70.35 %) were electrified (December 2013).

From the table above, it may be observed that even after a lapse of more than 10 years of signing of the MoA, the milestones set under the Power Sector Reforms Programme could not be fully achieved by the State Government.

Department of Hydro Power Development

4.2 Execution of Micro, Mini and Small Hydro Power Projects

4.2.1 Introduction

The Department of Hydro Power Development (DHPD) was created in November 2003 with a view to develop, operate and maintain micro/mini/small hydro power projects in the State.

As of 31 March 2013, the Department was operating 111 Micro/Mini/Small* Hydro Power Projects with a total capacity of 61.31 MW. Out of the 111 projects, 59 projects, with a capacity of 26.84 MW and total project cost of ₹337.60 crore were commissioned between 2008-09 and 2012-13; (remaining 52 projects were commissioned prior to 2008-09). In addition, 40 projects with a capacity of 66.44 MW and project cost of ₹ 749.76 crore, were under construction as on 31 March 2013.

A Performance Audit of power generating activities of the Department of Hydro Power Development (DHPD) was last conducted by the Comptroller and Auditor General of India (CAG) during 2009-10. The report of CAG laid before the State Legislature (March 2011) has not been discussed by the COPU yet (November 2013).

Total year wise hydro power capacity and overall power generation capacity (micro, Mini and Small Power Projects), in respect of non-conventional energy sources of the State from 2008-09 to 2012-13 is shown below:

Particulars	2008-09	2009-10	2010-11	2011-12	2012-13
Overall Generation Capacity of the Projects of DHPD (MW)	68.72	68.72	73.61	78.79	78.79
Percentage Increase	-	-	7.12	7.03	-
Hydro Power Capacity of DHPD (MW)	56.52	57.4	57.66	59.34	61.31
Percentage of Hydro Power on Overall Generation Capacity (%)	82.25	83.53	78.33	75.31	77.81

From the above, it can be seen that the hydro power capacity of the DHDP had reduced from 82.25 per cent (2008-09) to 77.81 per cent (2012-13). This decrease was due to increase in power generation from other sources mainly diesel generation by the DHDP.

* Micro - upto 100 KW; Mini - 101 to 999 KW; and Small - 1000 to 25000 KW.

4.2.2 Scope of Audit

The Audit covered:

- i) 59 Hydro Power Projects commissioned during the period from 2008-09 to 2012-13 with a project cost of ₹ 337.60 crore and capacity of 26.84 MW.
- ii) 40 Projects, which are still under construction, with a project costs of ₹ 749.76 crore.

The audit examination included scrutiny of records at Chief Engineer’s Office of the Department in Itanagar and 9 Civil Divisions and 6 Electro Mechanical (E&M) Divisions.

4.2.3 Audit Objectives

The main objective of audit was to assess whether Micro, Mini and Small Hydro Power Projects were executed and commissioned economically, efficiently and effectively. The focus of the audit was to see that:

- I. The viability of the projects was assessed properly.
- II. Tendering procedures were followed for award of the projects.
- III. Projects were executed economically, efficiently and economically

4.2.4 Audit Criteria

The following Audit Criteria were considered for arriving at the Audit Objectives.

- Standard Tender Procedures and selection of contractors;
- Terms & Conditions of NIT and Agreements;
- Guidelines issued by the Government of India, Government of Arunachal Pradesh; Government of India etc regarding execution of projects.

4.2.5 Audit Findings

The audit objectives were explained to the Department during an ‘Entry Conference’ held on 7 May 2013. Subsequently, audit findings were reported Department and discussed in an ‘Exit Conference’ held on 26 November 2013. The views expressed by the Department/Government in the exit conference have been considered while finalising this Thematic Audit Report.

The audit findings are discussed in subsequent paragraphs.

Audit objective: Whether viability of the projects was assessed properly?

4.2.6.1 Inadequate assessment of discharge of water, resulting in projects becoming non-operative/less operative

The first step for construction of any project is adequate survey and proper investigation for establishing its feasibility. From survey and investigation, sufficient and reliable data is gathered for preparation of Detailed Project Report (DPR) and precise assessment of its viability. Thus, gathering of sufficient and reliable data is first and important step for assessment of viability of a project.

In case of Hydel Power projects the viability is dependent on survey for possible site for the project and historical data regarding availability of proper head and discharge of the river on which the project is to be constructed. Any error in collecting adequate data for site and hydrological data can lead to failure of the project or inefficient functioning of power generating equipments. For this purpose, the DPR should be based on hydrological data such as annual rainfall, discharge, flood data etc for a minimum period of two years.

During the period from 2008-09 to 2012-13, the Department executed 59 hydel projects at a cost of ₹ 337.60 crore.

A review of the projects revealed that out of 59 completed micro/mini/small hydel power projects executed by the Department, the viability of 12 projects (**Appendix-4.5**) was established on hydrological data for one to two months only instead of requisite detailed data for a minimum period of three years (as per Government orders). These 12 projects became non-operative/less operative due to less discharge of water after these projects were commissioned indicating faulty planning due to reliance on insufficient hydrological data. As a result, expenditure of ₹ 44.32 crore incurred on the construction of these 13 projects was rendered unproductive.

The Government in its reply stated (November 2013) that due to sudden announcement of the Prime Minister's economic package, in 2008-09, for development of micro/mini/ small hydro power projects during the financial year 2008-09, required hydrological survey of source streams for the listed 12 projects could not be carried out.

The reply of the Department is not tenable as inspite of the fact that hydrological survey is one of the critical aspects for establishing the viability of a hydel project, the Department had not adhered even to its own practice of carrying out hydrological surveys for full two years.

Thus, failure of the Department to conduct proper survey and investigation in respect of 13 hydel projects resulted in an unfruitful expenditure of ₹ 44.32 crore.

Audit Objective: Whether tendering procedures were followed for award of the projects?

4.2.6.2 Execution of Civil Works without open tendering.

Para 14.1 of the CPWD Works Manual provides that tenders should normally be called for all works exceeding ₹ 50,000.

During the period 2008-09 to 2012-13, the Department executed the E&M works in 52 projects (₹196.01) and civil works in 15 projects (₹147.45 crore) after following due tendering procedures. However, in addition above, the DHPD carried out civil works valuing ₹165.78 crore in respect of 38 projects, without following any tendering procedures. The civil works related to these 38 projects were executed by issuing a number of Work Orders without any Technical Sanction and calling for open tenders as per details given in **Appendix – 4.6**.

Audit also observed that the value of works executed through such work orders without following tendering procedures and ensuring technical approvals was very high and ranged between ₹0.43crore (Chu Nallah MHS project) and ₹15.87crore (Pagu SHP Project). Award of works without following tendering procedures was contrary to stipulations of CPWD Manual was also detrimental to the financial interest of the Department.

In reply, the Government stated (November 2013) that for E&P works tendering procedures were adopted; however, Civil Works were carried out through work orders without open tender to encourage employment of local people.

The reply of the Government is not acceptable as the works done through work orders, without ensuring economy and quality of works done, were very high and constituted 32.30 *per cent* of the total works executed.

Audit objective: Whether projects were executed economically, efficiently and effectively.

4.2.6.3 Improper planning and frequent changes in installed capacity of Halaipani SHP(4X4 MW) resulted in unproductive expenditure of ₹ 109.56 crore.

The Government of Arunachal Pradesh accorded (March 1997) Administrative Approval for setting up Halaipani Small Hydroelectric Project, with a capacity of 9MW at an estimated expenditure of ₹ 51.37 crore. The Project was targeted to benefit 111 villages. The Department entrusted the work of preparation of DPR, technical and engineering design and drawing work for the project to Alternative

Hydro Energy Centre (AHEC) of the University of Roorkee. AHEC prepared (1998) the DPR for 9MW (3X3 MW) SHP at Halaipani with the scheduled date of completion in 2000-01. The Department of Power (DoP) took up preliminary and auxiliary works on the project and incurred expenditure of ₹ 6.32 crore (up to September 2001).

However, the Government of Arunachal Pradesh handed over (August 2001) the construction of the project to the National Hydro Power Corporation (NHPC). NHPC prepared a revised DPR (January 2002) after taking over the project from the Government of Arunachal Pradesh based on hydrological data for the period from January 1995 to February 2000. It proposed (January 2002) to increase the capacity of the Halaipani SHP to 12 MW (4 X 3 MW) at a revised cost of ₹ 64.30 crore.

The State Government approved (February 2002) the revised estimate in the following manner - State Government share (₹ 10.45 crore); MNRE grant (₹ 22.50 crore) and Rural Electrification Corporation (REC) loan (₹ 31.35 crore).

In February 2002, the Government again took over the project from NHPC and handed it over (February 2002) to DHPD for execution. The target date of completion was given as December 2004.

After seven years, the Department submitted (January 2009) a revised DPR for enhancing the capacity from 12 to 16 MW at a revised cost of ₹ 112.40 crore, which was approved (February 2010) by the State Government. The target date of completion of the project was revised to September 2011.

During June 2012, there was a heavy flood in Halai river which resulted in heavy losses in the project work. The flood damage loss was estimated at ₹ 0.50 crore and Flood Damage Repair (FDR) cost at ₹ 14.52 crore.

After the floods, AHEC, Roorkee, suggested (August 2012), for providing retaining walls both upstream and downstream, raising of the powerhouse level, shifting of the silting chamber, strengthening of the anchor block, etc. The Department further submitted (May 2013) a revised DPR of ₹ 155.21 crore, which included ₹ 15.31 crore for protection works. The State Government accorded (June 2013) re-revised Administrative Approval for the project at a cost of ₹ 155.51 crore.

Up to the end of March 2013, the Department had incurred an expenditure of ₹109.56 crore on the project (Civil Works - ₹ 74.31 crore & E&M-₹ 35.25 crore) out of a sanctioned amount of ₹ 155.51 crore. The project had not been completed till date (August 2013).

Audit observed that:

1. The Department did not properly plan the project as it had frequently revised the installed capacity of the project as detailed above. This frequent revision of the

installed capacity of the project had resulted in delay in the completion of the project by more than 16 years.

2. Against the initial cost of ₹ 51.37 crore for 9MW capacity SHP, the project cost had increased to ₹ 155.51 crore for 16 MW capacity, out of which the Department had already incurred an expenditure of ₹109.56 crore as on 31 March 2013. Even after incurring an expenditure amounting to twice the original cost, the project had not been completed and remained unproductive.

3. Despite the knowledge (site inspection report of March 2012) that proper safeguards for protection of civil works didn't exist at the work site, the Department had not taken adequate measures to safeguard the material at site. Consequently, the project suffered a loss of ₹ 0.78 crore on account of loss of material: cement, steel and tools and plants when this material was washed due to floods (June 2012).

The Government stated (November 2011) that the delay in completion was mainly attributed to the funding pattern of the Central and State Government respectively. Fresh initiatives towards engagement of Central PSUs (NEEPCO, NHPC etc) were being considered.

The reply of the Government is a clear indication of the fact that the project had not been planned properly.

Thus, delay in completion of the project due to frequent changes in installed capacity rendered the expenditure of ₹ 109.56 crore (Civil Works - ₹ 74.31 crore and E&M Works - ₹ 35.25 crore) unproductive even after 16 years from the first Administrative Approval for the project. Moreover, the 111 targeted villages were also deprived of the intended benefits of this small hydel project.

4.2.6.4 Payment of interest free Mobilization advance in violation of CPWD manual

As per Para 32.5 of CPWD manual* 2010, in respect of certain specialised and capital intensive works of estimated cost of ₹ 2 crore and above, mobilisation advance (MA) limited to 10 *per cent* of tendered amount, at 10 *per cent* simple interest per annum, could be sanctioned to a contractor on specific request as per the terms of the contract. Further, MA shall be granted against a bank guarantee (BG) of a scheduled bank for the full amount of advance and shall be released in not less than two installments and subsequent installment shall be released only after furnishing proof of satisfactory utilization of earlier installment of MA.

During the period from 2007-08 to 2012-13, the Department invited tenders for construction of 99 micro/mini/small Hydel projects in the State. Against the tenders, the Department awarded the various E&M and Civil works valued at ₹ 1087.36 crore. The tenders stipulated that MA will be limited to 10 per cent of the value of work in accordance with the above mentioned provisions of the CPWD manual.

* As followed in the State Government

Audit observed that the Department released interest free MA of ₹ 52.27 crore (Appendix – 4.7) to the contractors, in nine projects, in contravention to the above provisions of the CPWD manual. In spite of allowing interest-free MA to contractors, the works were not completed within the scheduled time period and MA of ₹16.57 crore was yet to be adjusted from contractors bills as of August 2013.

The non-adherence to the CPWD provisions, by allowing interest free MA to the contractors, had also resulted in extension of undue benefit to the contractors in the form of interest on MA amounting to ₹10.04 crore[†].

Further, Department had also not secured the MA fully, as Bank Guarantees were either not taken or had lapsed in respect of seven cases (Appendix – 4.8).

The Government in its reply (November 2013) stated that Mobilization Advances were paid to contractors as per terms and conditions of the agreement and payment of Mobilisation Advance has been discontinued in the State.

4.2.6.5 Non-levy of Liquidated Damages on contractors

As per standard terms and conditions of the agreement entered with the turnkey contractors, the Department is entitled to levy and recover from the contractor(s) Liquidated Damages (LD) for delay in completion of the work @ one percent of the contract price per week or part of the week, subject to a maximum of 10 percent of the contract price.

It was observed that even though turnkey contractors had delayed the completion of 32 projects by 8 to 53 months (as of August 2013), the Department did not levy LD amounting to ₹ 17.09 crore as per details given in the **Appendix –4.9**.

The Government in its reply (December 2013) stated that it planned to recover liquidated damages, if necessary, while making final payments to the contractor.

4.2.6.6 Non-repair/replacement of defective E&M Equipment

As per general terms and conditions of the Agreement entered into with the E&M turnkey contractors, the contractor was responsible for operating the project successfully for 18 to 24 months or 1800 hours, whichever was earlier. The contractor was also responsible for repair/replacement of damaged equipment during this period.

However, it was observed that the Department did not include any penal clause in the agreement to safeguard departmental interests in cases where defects in the equipment were noticed during the warranty period. Due to this lapse, the Department could not take any action like forfeiture of security deposit, repair/replacement of damaged equipment at the risk and cost of the contractor etc.

It was observed that the contractors did not replace/repair the damaged equipment in seven projects (**Appendix-4.10**). Consequently, when the contractors did not replace the damaged equipments in seven projects, these projects had to remain non-operative for a period ranging between 3 and 47 months. The shut-down of the seven projects

[†] Simple interest on ₹52.27crore at the rate of 10 per cent for 23 months (June 2011 to April 2013)

due to non-replacement of various damaged equipment, coupled with non-inclusion of any penal clause resulted in loss of revenue amounting to ₹ 30.22 crore as a result of loss of generation of power of 79.52 MUs. Moreover, 127 villages linked to the projects were also denied electricity supply.

The Government in its reply (November 2013) stated that Show Cause Notices would be issued to the defaulting contractors who were yet to take up replacement/restoration work of E&M equipment.

4.2.6.7 Loss of ₹ 8.46 crore due to deterioration of equipment-Kush MHS

The Department of Power (DoP) entered (October 1993) into an Agreement with Boving Fouress Limited (BFL), Bangalore, for construction of Kush MHS (2x1500 KW) at a cost of ₹ 16.05 crore (Civil Works - ₹ 8.14 crore and E&M Works - ₹ 7.91 crore) on lump sum turnkey basis. The project was scheduled to be completed by November 1996. The Department paid (January to August 1994) interest-free MA of ₹ 4.01 crore to the contractor.

Prior to taking up and completing related Civil Works, the contractor supplied (November 1996 to March 1997) E&M equipment valued at ₹ 8.46 crore and kept it at Lilabari (Assam), and kept it in an open space and exposed to the elements of bad weather. The guarantee period of the E&M equipment ended in September 1998. Due to the failure of the Department to provide an approach road to the project site, the equipment was not transported to the site. The contractor abandoned the works and went for arbitration, claiming various amounts from the Department. The arbitration award (February 2006) went in favour of the Department and stipulated that the contractor (BEL) would be responsible for completion of E&M and civil works and commissioning of the project.

In the meanwhile, after inspection, the Department found (October 2010) that the equipment was in dilapidated condition/completely eroded due to rusting and therefore the same was unusable.

The Department submitted (September 2011) a revised estimate of ₹ 40.90 crore in respect of Civil and E&M works for the project.

Up to the end of May 2013, the Department incurred an expenditure of ₹ 13.26 crore on Civil Works.

Audit observed that:

1. The order for supply of E&M equipment valued at ₹ 8.99 crore was prematurely placed on the contractor as the civil works at site were not completed. Due to this, the E&M equipment remained idle for a long period (16 years), after which it became unusable due to deterioration, rust, wear and tear, etc., resulting in loss of ₹ 8.99 crore to the Department.
2. The Department failed to get the works completed by BFL, Bangalore, even after the arbitration went in favour of the Department, which finally resulted in cost overrun of ₹24.85 crore and time overrun of 17 years.

The Government in its reply (December 2013) stated that after award of arbitration, the Department executed the civil works on its own as funds for the same were provided under PM's package.

The reply of the Government was, however, silent on loss of ₹ 8.46 crore due to deterioration of E&M equipment.

Other Observations

4.2.6.8 Avoidable expenditure of ₹ 0.36 crore on construction of Spillway Channel- Sippi MHS:

The Department of Power, Government of Arunachal Pradesh, entered into a MoU with National Hydroelectric Power Corporation Limited (NHPC) for construction of Sippi MHEP, at an estimated cost of ₹ 40.03 crore. The project was scheduled to be completed by October 2003. NHPC completed the project through a turnkey contractor (June 2008) at a cost of ₹ 48.70 crore, after a delay of more than 57 months.

NHPC handed over (August 2008) the project to the Department for operation. Before taking over the project, a joint inspection of the project was conducted (June 2008), wherein it was observed that the RCC Spillway Channel was not sufficient to discharge the huge quantum of spilled water to the Sippi River. It was further observed that the structure was neither permanent nor stable and therefore prone to damages. It was opined that in order to avoid damage to the power house and other equipment/structures in future, construction of a permanent RCC Channel and repair/maintenance of the spillway was necessary.

However, the Department did not take any action on these observations. Consequently, in September 2010, the Spillway Channel was washed out due to heavy rains and the project was shut down (September 2010 to March 2011). During the shut-down period, the Department carried out repair work of the Spillway Channel and constructed a temporary structure at a cost of ₹ 0.36 crore.

Subsequently, the project was again shut down (March 2012 to August 2012) for construction of a permanent Spillway Channel at a cost of ₹ 0.52 crore.

Audit observed the Department even after being fully aware (August 2008), that absence of a permanent structure posed a risk to the power house, it did not construct a permanent structure during the period from September 2008 to August 2010. Even when the Department decided to shut down the project during September 2010 to March 2011, it had not constructed a permanent structure. This had resulted in avoidable expenditure of ₹ 0.36 crore being expenditure incurred on temporary structure.

In addition, the two shut down periods had resulted in avoidable loss of generation of 7.05 MUs of power (revenue of ₹ 2.76 crore).

The Government stated (December 2013) that due to fund constraints under State Plan, the Department could not take up construction of the permanent structure in 2010-11,

and the temporary repair work of the damaged Spillway Channel was carried out as stop-gap arrangement. Reasons for delay in completion of the project were non-handing over of land in time, poor law and order situation and extended monsoons, etc.

4.2.6.9 Non-payment of NPV for diversion of forest land, resulting in revocation of in-principle approval -Sippi SHEP:

As per Supreme Court of India Order (December 1996), payment of cost of Compensatory Afforestation and Net Present Value (NPV) was mandatory for conversion of forest land/areas irrespective of ownership and classification under the Forest Conservation Act, 1980. The Government of India (GoI), Ministry of Environment and Forests (MoEF) granted (February 2003) in-principle approval for diversion of 4.986 hectares of forest land for construction of Sippi SHEP in Upper Subansiri District. The Conservator of Forest & Nodal Officer several times requested (April 2005 to April 2012) both the National Hydroelectric Power Corporation Limited (NHPC) and DHPD for payment of NPV of ₹ 45.87 lakh. Despite the requests, the DHPD did not pay the NPV on the plea that no Government/community land was involved in Sippi SHEP and compensation for acquired land was paid to the private land owners.

Since the NPV was not paid by the Department, the Chief Conservator of Forests (CCF), Shillong, revoked (January 2013) the in-principle approval accorded to the project and requested the State Government to ensure that the forest land was under the possession of the Forest Department.

Audit observed that revoking of approval for Sippi SHEP, on account of non-payment of NPV by the Department may ultimately lead to permanent shut-down of the project.

The Department stated (December 2013) that payment of NPV was not required as the land belonged to the local public of the area. However, the Department had taken up the matter with the Government. Reply of the Government was awaited.

4.2.6.10 Failure to provide Air sorties for Engineers resulted in non-commissioning of project-Ngonola MHS

The Department completed Civil Works (₹ 3.54 crore) in respect of Ngonola MHS (2x50 KW) at Vijaynagar, Changlang District in 2009 and E&M Works (₹0.52 crore) through a turnkey contractor in October 2010. The E&M contractor, Hydrel Equipments, Guwahati, after completing supply and erection of E&M equipment, operated the machine in individual mode for a few hours, after which the machines were shut down due to low pressure of water. The reason for low pressure/shortage of water was stated to be the damage to the Penstock pipeline. The staff of the contractor left (October 2010) the project site stating that unless water supply was ensured the machines could not be operated. Civil Division, Bordumsa, after repairing the damaged Penstock pipeline, requested the Government for airlifting of engineers to the project site for testing and commissioning. Although, the Government approved the

proposal in October 2012, yet the engineers were not airlifted to the project site for testing and commission of the project so far.

Thus, failure of the Department/Government to arrange transportation of the engineers to the site resulted in non-commissioning of the project so far (August 2013). Thus, expenditure of ₹ 4.06 crore incurred on the project remained unfruitful even after more than 36 months from the completion of the project. This had resulted in loss of generation of 1.93 MUs, valued at ₹ 0.73 crore till date (August 2013).

The Department in its reply stated (December 2013) that for arranging transportation of Engineers and Technicians by air sorties, the matter was vigorously taken up with the concerned authority.

4.2.6.11 Non-recovery of Statutory Deductions

The Department failed to recover statutory deductions such as Income Tax: ₹0.69 crore; Labour Cess: ₹ 0.35 crore; and VAT: ₹ 0.62 crore (**Appendix – 4.11**) from payments made to contractors, which resulted in loss of revenue of ₹1.66 crore to the Government, besides extension of undue benefit to the contractors.

The Government stated that statutory deductions such as Income Tax, Labour Cess and VAT would be recovered from remaining Running Account Bills.

4.2.6.12 Conclusions

- Proper preliminary investigations and surveys were not conducted and assessment of hydrological data, i.e. availability of discharge of water, was not done for 36 to 60 months as required, resulting in non-availability of discharge of water after commission.
- The Department failed to adhere to Government instructions regarding calling of open tenders for competitive bidding.
- Projects were not planned properly as there was frequent revision in installed capacity.
- Payment of interest-free Mobilization Advance in excess of the quantum fixed in NIT terms and conditions was detrimental to the financial interest of the Department.
- The Department failed to levy Liquidated Damages on contractors for delay in completion of projects, as per terms and conditions of Agreements.
- The Department failed to get repair/replacement of defective E&M equipment, resulting in non-operation of projects.

4.2.6.13 Recommendations

- Preliminary investigations and surveys should be carried out properly and hydrological data should be assessed for 36 to 60 months as per norms.
- All the works should be executed through competitive bidding to ensure economy and quality of work done.

- A specific Clause regarding replacement/repair of defective equipment within a specific period by the contractor should be incorporated in the Agreements to safeguard the interest of the Department.
- Co-ordination between Civil and E&M Divisions as well as between the Department and DoP should be maintained for timely completion of Civil and E&M Works simultaneously and for providing evacuation facilities respectively.

4.3 Non-achievement of anticipated benefits of the project

The Department could not achieve the anticipated improvement in generation of power despite incurring an expenditure of ₹209.16 lakh on capacity improvement project against the sanctioned cost of ₹104.58 lakh

The Department of Hydro Power Development (DHPD), Government of Arunachal Pradesh, commissioned (2005) Mati Nallah Mini Hydel Station (MHS) (2 x 250 KW) at a cost of ₹ 5.99 crore. The Project catered to the power requirements of Hawaii in Anjaw district of the State. In April 2008, the Department proposed to improve the power generation capacity of the project in the lean season[‡] by constructing a channel for diverting water from nearby Nallah “Chingwinti” to the project. For this purpose an estimate of ₹ 104.58 lakh was proposed in the Detailed Feasibility Report (DFR) of the project. It was proposed that drawing of water from Chingwinti river will help in optimum capacity utilisation of the Mati Nallah Mini Hydel Station and shall be completed in two years. However, the Department did not receive any administrative approval for the work.

Subsequently, the Department, submitted (April 2009) another proposal for the same work, i.e. diversion of water[§] from the nearby Changwiti Nallah to Mati Nallah, with an estimate of ₹ 104.89 lakh. It was proposed that the diversion of water will create power potential of about 150 KW (equivalent to 13,14,000 KWh^{**} per annum) in the project. The Department of Power (DoP), accorded (June 2009) its administrative approval for the same work^{††} under North Eastern Council (NEC) funded Scheme, for an amount of ₹ 104.48 lakh which was concurred (October 2009) by the Government of Arunachal Pradesh.

The Department completed (March 2010) the project after incurring an expenditure of ₹ 209.16 lakh during the period from April 2009 to March 2010.

Audit observed that:

- The Department purchased (March 2009), various materials in connection with the above work, against the estimates of April 2008, and incurred an expenditure of ₹ 104.58 lakh for purchase of cement, steel, cartage etc for the

[‡] October to February

[§] Improvement of Mati Nallah MHS (2X250 kW)

^{**} 150 KWx365 days x 24 hrs

^{††} Improvement of Mati Nallah MHS (2X250 kW)

project. No administrative approval for the above work was obtained by the Department at the time of purchase of these materials.

- After receiving administrative approval in June 2009, for the work of diversion of water from the nearby Changwiti Nallah to Mati Nallah, the Department further incurred an expenditure of ₹ 104.58 lakh during the period between November 2009 and March 2010 on account of purchase of material for the above works.
- The work was undertaken to improve the actual generation capacity of the project as the project was not able to achieve its capacity generation due to less discharge of water. Before the improvement works were undertaken, the project was able to achieve a maximum generation of only 7,91,737 KWh (90 KW) (18 per cent) in 2008-09 against an installed capacity of 43,80,000 KWh per annum (500 KW). The improvement works envisaged improvement of generation to 13,14,000 KWh per annum (equivalent to 150 KW) to the existing actual generation. It was, however, observed that even after incurring an expenditure of ₹ 209.16 lakh for improvement of the generation capacity, the project was able to achieve a maximum generation of 8,90,514 KWh only (102 KW) during 2012-13 as against the envisaged generation of 13,14,000 KWh per annum. Therefore, improvement works had not achieved the desired objective.

Thus, the Department could not achieve the anticipated improvement in generation of power despite incurring an expenditure of ₹209.16 lakh on the project against the sanctioned cost of ₹104.58 lakh.

The Department, in reply, stated (January 2014) that in anticipation of Government sanction, a Letter of Credit (LoC) for ₹ 104.58 lakh was issued (March 2009) to avoid surrender of funds under Non-Plan, and accordingly, the expenditure was incurred by the Executive Engineer. Further, other LoCs for an amount of ₹ 104.48 lakh were also issued (November 2009 to March 2010) against the expenditure sanction from State Government.

The reply of the Department is not acceptable as only one Government sanction was received for works valued at ₹ 104.48 lakh against the total expenditure of ₹209.16 lakh incurred by the Department. Further, the generation of electricity from the project was not in accordance with the proposals submitted for undertaking improvement works on the project.