

**CHAPTER – II**

**ECONOMIC SECTOR**

## CHAPTER - II

### ECONOMIC SECTOR

#### 2.1 Introduction

This Chapter of the Audit Report for the year ended 31 March 2014 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 2013-14 are given below:

Table No. 2.1.1

(₹ in crore)

Name of the departments	Total Budget Provision	Expenditure
Agriculture	192.10	133.75
Horticulture	22.67	15.67
Soil and Water Conservation	39.27	39.34
Veterinary and Animal Husbandry	78.02	81.17
Fisheries	42.47	37.06
Land Resources	27.24	27.22
Cooperation	37.40	33.81
Civil Supplies	32.04	28.68
Rural Development	129.72	78.88
SIRD	8.75	3.75
Sericulture	15.15	15.11
Land Records and Survey	21.46	21.25
Irrigation and Flood Control	225.64	85.77
Power	422.53	371.59
New and Renewable Energy	19.32	18.52
Industries and Commerce	82.95	69.48
Geology and Mining	28.30	28.29
Roads and Bridges	558.90	544.34
Science & Technology	2.19	2.16
Tourism	28.77	25.11
Economics and Statistics	29.49	28.28
Legal Metrology and Consumer Protection	14.25	9.80
Planning and Coordination Department	767.03	184.44
Evaluation	5.38	5.38
Department of Under Developed Areas	87.77	71.81
Information Technology & Communication	11.92	7.59
Forest, Ecology, Environment and Wildlife	92.44	77.02
Road Transport	70.73	65.59
<b>Total number of departments=28</b>	<b>3093.90</b>	<b>2110.86</b>

Besides the above, the Central Government has been transferring a sizeable amount of funds directly to the Implementing agencies under Economic Sector to different

departments of the State Government. The major transfers for implementation of flagship programmes of the Central Government are detailed in the following table:

**Table No. 2.1.2**

**(₹ in crore)**

<b>Name of the Department</b>	<b>Name of the Scheme/Programme</b>	<b>Implementing Agency</b>	<b>Amount of funds transferred during the year</b>
Land Resources	National Bamboo Mission	Nagaland Development (NBDA) Bamboo Agency	20.29
Rural Development	Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGA)	District Development (DRDAs) Rural Agencies	292.15
	Indira Yawas Yojana (IAY)	District Development (DRDAs) Rural Agencies	73.28

*(Source: Central Plan Scheme Monitoring System of Controller General of Accounts)*

## **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 and concerns of stake holders.

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 auditee for compliance. Some of the important audit observations arising out of the 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.

During the year, test check of audits involving expenditure of ₹ 1045.85 crore (including funds pertaining to previous years audited during the year) of the State Government under Economic Sector were conducted. This chapter contains the findings on Performance Audits of 'Activities of Department of Power' and 'Implementation of Accelerated Irrigation Benefit Programme' and four compliance audit paragraphs.

DEPARTMENT OF POWER

2.3 Performance Audit on the Activities of Department of Power

The Performance Audit of Power Department was taken up from April to September 2014 covering the period from 2009-14 to evaluate the performance of the Department in providing quality power supply to all categories of consumers both in urban and rural areas at minimum costs and increasing the revenue collection. Unlike other States in India, the corporatisation of the Department of Power, Government of Nagaland for taking up the activities of generation, transmission and distribution of energy in the State had not taken place. The Department of Power, Government of Nagaland is a deemed licensee under section 14 of the Electricity Act, 2003 for carrying out the above activities. Some of the major findings are highlighted below:

**Highlights**

➤ *The Department could complete only 5 projects out of 15 major projects proposed for execution under the 11<sup>th</sup> Five Year Plan (2007-12) as of September 2014.*

**(Paragraph 2.3.8.1)**

➤ *The Department allowed exorbitantly high margin of upto 763 per cent to the suppliers in respect of eight works executed during 2009-14 which led to unjustified escalation of project costs by ₹21.02 crore.*

**(Paragraph 2.3.9)**

➤ *The Department failed to maintain effective discipline in drawal of energy as per the approved schedule causing avoidable financial burden of ₹101.46 crore in five years on account of Unscheduled Interchange (UI) charges.*

**(Paragraph 2.3.10.3)**

➤ *The Department had sustained energy loss of 1257.30 MUs (valuing ₹502.12 crore) during five years due to its failure in restricting the Aggregate Technical & Commercial (AT&C) Losses within the CEA norms.*

**(Paragraph 2.3.10.4)**

➤ *During 2009-14, there was significant generation shortfall (103.28 MUs) under Likhimro Hydro Electric Project (LHEP) compared with the minimum generation assured by the Lessee necessitating the State to import additional energy at higher costs involving financial implications of ₹16.63 crore in five years' period.*

**(Paragraph 2.3.10.7)**

➤ *During 2009-14, the billing and collection efficiency of the Department was dismal as bills were not raised against 42 per cent of the energy injected into the system (1149.19 MUs valuing ₹393.16 crore) and 33 per cent of the energy bills raised (520.05 MUs valuing ₹165.67 crore) remained unrealised.*

**(Paragraph 2.3.11.5)**

### **2.3.1 Introduction**

Like many other states, Nagaland has also been facing the problems of energy shortages, inadequate power systems, unreliable and poor supply of electricity, growing revenue deficit, inadequate revenue collection and the resultant negative impact on the State finances. With a view to overcome these problems and to fully meet the demand of power by 2012, the Government of India (GOI) prepared the National Electricity Plan (NEP) in compliance with Section 3(4) of the Electricity Act 2003. The Department of Power, Government of Nagaland, a deemed licensee under section 14 of the Electricity Act, 2003, is carrying on the activities of generation, transmission, distribution and retail supply of electricity in the State. The present audit envisaged to examine these issues and draw audit conclusion and also make suitable recommendations.

The position of the energy requirements vis-a-vis the energy availability in the State through own generation and purchase of power from Central Generating Stations during the period of five years covered in audit is detailed in the table below:-

**Table No.2.3.1**

<b>Year</b>	<b>Energy requirement (MU)</b>	<b>Energy availability (MU)</b>	<b>Own Generation (MU)</b>	<b>Power purchased (MU)</b>
2009-10	630.00	512.36	73.36	439.00
2010-11	699.74	578.44	76.34	502.10
2011-12	729.03	599.74	87.20	512.54
2012-13	734.03	575.14	95.76	479.38
2013-14	736.59	619.92 (estimated)	107.00	512.92
<b>Total</b>	<b>3529.39</b>	<b>2885.60</b>	<b>439.66</b>	<b>2445.94</b>

*Source:-Figures as provided by the office of the Chief Engineer, Department of Power, Nagaland.*

It could be noticed from the Table above that as against the energy requirement of 3529.39 MUs during the period from 2009-14, the State's own generation was 439.66 MUs (12.45 *per cent*) only. Further, even after purchasing 2445.94 MUs of energy from outside sources (viz. Central Generating Stations), there was a shortfall of 643.79 MUs (18.24 *per cent*) in meeting the State's energy requirement during the period of five years from 2009-14.

### **2.3.2 Organisational Set up**

The Commissioner & Secretary (Power) is the Chief Controlling Officer of the Department. The Department was bifurcated (January 2013) into two Directorates viz. Transmission and Generation (T&G) wing and Distribution and Revenue (D&R) wing. The T&G wing is headed by the Chief Engineer (CE) assisted by four Superintending Engineers (SE) and eight Executive Engineers (EE). The Additional CE heads the D&R wing assisted by two SEs and ten EEs. All the 18 EEs are assisted by 38 Sub-Divisional Officers. The Department had total of 4130 employees as on 31 March 2014.

The organisational set up is depicted in a chart as shown in **Appendix-2.3.1**.

### **2.3.3 Scope of Audit**

The present Performance Audit (PA) taken up during April 2014 to September 2014 covered the activities of the Department of Power Department for the period of five years from 2009-10 to 2013-14. For the purpose of PA, records in the offices of the CE (T&G) and Additional CE (D&R), two out of three civil divisions under Generation, all the three divisions under Transmission, four out of ten electrical divisions under Distribution and one store division were selected for detailed examination by applying simple random sampling method.

### **2.3.4 Audit Methodology**

The methodology adopted for attaining the audit objective consisted of explaining audit objectives to top management in the Entry Conference (15 April 2014), analysis of data/records with reference to audit criteria, examination of documents/records of the Department, interaction with the officials of the Department, raising audit queries, issuing of draft report (September 2014) to the Department as well as to the Commissioner and Secretary to the Government of Nagaland for comments. The draft report was also discussed (15 October 2014) with the representatives of the Department/Government of Nagaland in the Exit Conference. The formal replies of the Department to the draft report as well as the views expressed by the representatives of the Department/Government of Nagaland in the Exit Conference have been taken into consideration while finalising the Report. The formal replies of the Commissioner and Secretary, Government of Nagaland, however, had not been received (December 2014).

### **2.3.5 Audit Objectives**

The audit was carried out to assess whether:-

- perspective/annual plans were prepared in accordance with State's requirement and the National Electricity Plan;
- the projects for development of infrastructure were executed in an economic, efficient and effective manner;
- operation and maintenance of the infrastructure already developed was carried out in an economic and efficient manner;
- an effective and efficient Financial Management system existed in the Department emphasizing upon timely raising and collection of revenues;
- monitoring mechanism of the Department was adequate and effective.

### **2.3.6 Audit Criteria**

The audit criteria adopted for attainment of above objectives were derived from the following sources:

- National Electricity Plan and National Electricity Policy;
- Plan documents of the Department;
- Standard procedures and practices relating to award of contracts;
- General Financial Rules;

- Notification and Guidelines issued by the Government/Department from time to time.

### **2.3.7 Acknowledgement**

We acknowledge the co-operation and assistance extended by the Department and the Government of Nagaland (GON) at all levels during conduct of the Audit.

### **2.3.8 Audit Findings**

#### ***Objective-1:-To assess preparation of perspective/annual plans by the Department vis-a-vis the State's requirement and the National Electricity Plan.***

Planning is an important tool to link, organise and efficiently execute various activities of an organisation for achieving the desired goals. Planning process involves identification and assessment of requirements by conducting various preliminary activities like survey, feasibility studies etc. and also to appropriately utilise the results of these preliminary activities for preparing the overall short and long term plans of the organisation.

#### **2.3.8.1 Eleventh Five Year Plan**

The Department prepared Draft Eleventh Five Year Plan (2007-12) which *inter-alia* envisaged construction of eight<sup>1</sup> major projects under Generation and seven projects under Transmission as detailed under **Appendix-2.3.2**.

It was observed that out of the above fifteen projects envisaged in the Plan under Generation and Transmission, the Department could complete only one project<sup>2</sup> under Generation and another four<sup>3</sup> under Transmission (September 2014).

Examination of the records of the Department revealed that the GON did not have enough financial resources of its own for implementation of the said major projects. As a result, GON had to mostly rely upon the centrally sponsored schemes as well as grants/loans from North Eastern Council (NEC) and financial institutions for implementation of these projects. Though the Department prepared the short term plans on annual basis for development of infrastructure, it was noticed that the said plans were not based on any survey or study reports. In fact, it was noticed that the said projects were planned based on anticipated availability of funds without identifying and ensuring the source of the funds and assessing the priorities.

#### **2.3.8.2 Centrally Sponsored Schemes**

With a view to provide access to electricity for all rural households in five years under National Common Minimum Programme, the GOI launched (April 2005) the Rajiv Gandhi Gramin Vidyutikaran Yojna (RGGVY) throughout the Country. The scheme targeted to electrify 1.25 lakh un-electrified villages<sup>4</sup> and to give electricity

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<sup>1</sup> Including five spilled over projects planned during previous Five Year Plans

<sup>2</sup> Lang Micro Hydro Electric Project (capacity 1.00 MW)

<sup>3</sup> Upgradation of substations at Tuli, Mokokchung, Kiphire and Mon

<sup>4</sup> A village would be declared as electrified, if (1) Basic infrastructure such as Distribution Transformer and Distribution lines are provided in the inhabited locality as well as the Dalit Basti hamlet where it exists. (2) Electricity is provided to public places like Schools, Panchayat Office, Health Centers, Dispensaries, Community centers etc. (3) The number of households electrified should be at least 10% of the total number of households in the village.

connection free of cost to 2.34 crore BPL households in the Country as a whole by 2009. The scheme was to be implemented under 10<sup>th</sup> and 11<sup>th</sup> Five Year Plans.

In Nagaland, the programme was initially launched (2005-06) in two out of eleven districts (Kohima and Phek) under 10<sup>th</sup> Five Year Plan. The project in Kohima, however, could not take off due to litigations and alternatively Zunheboto district was selected for implementing the scheme in place of Kohima. The remaining nine districts were covered under 11<sup>th</sup> Five Year Plan. The Department was the implementing agency for RGGVY in Nagaland.

The details of various targets fixed under the scheme vis-à-vis actual achievements there-against as of March 2014 are shown in the table below:-

**Table No.2.3.2**

Target and achievement of RGGVY as of March 2014			
Particulars of beneficiaries	Target	Achievement	Shortfall
Un-electrified villages	106	92	14
Number of villages/habitations for intensification <sup>5</sup>	1369	1110	259
BPL households	69900	42837	27063

*Source:-Departmental figure*

It could be seen that the Department could not provide electricity to 14 un-electrified villages and 259 habitations covering 27063 BPL households (39 per cent) even after a lapse of eight years from launching (2005-06) the project thereby defeating the primary objective of the scheme to provide access to electricity to all rural households.

In reply, the Department stated (October 2014) that as of September 2014 there are 10 un-electrified villages and 56 habitations and the same would be electrified by November 2014.

The reply, however, confirms the slow progress of work relating to implementation of RGGVY Scheme in the State of Nagaland.

**(I) Inaccurate projection of rural households**

As per Census 2001, there were 2,65,334 rural households in Nagaland out of which, a total number of 1,14,405 households were un-electrified. Contrary to the figures projected in the Census 2001, the Department incorporated 1,43,060 households as un-electrified in the Detailed Project reports (DPRs) by adopting inflated data of un-electrified households. It was also noticed that the inflated figures of un-electrified households were considered for 10 out of 11 districts (excepting Tuensang district) of the State. Thus, the actual number of rural household to be electrified under RGGVY was overstated by 28655 households. The cost implication of the inaccurate projections made by the Department on number of un-electrified households was to the tune of ₹ 6.30 crore.

While accepting the facts, the Department stated (October 2014) that the Statistics

<sup>5</sup> Intensive electrification of villages already electrified villages by upgrading the existing infrastructure so as to make the same functional.



provided under Census of 2001 was not firm. The reply of the Department is not acceptable as in case of any discrepancies in the figures of targeted beneficiaries, the Department should have approached GOI for appropriate revision in the scope of the the scheme.

***Objective-2:- To assess the economy, efficiency and effectiveness in execution of projects by the Department.***

Project management is the process and activity of planning, organizing, controlling the available resources in line with the standard practices and procedures so as to achieve the specified goals in an economic and efficient manner.

During the 11<sup>th</sup> Five Year Plan, the Department had planned eight Generation Projects and seven Transmission Projects (**refer Appendix – 2.3.2**) for execution and the same were undertaken by the Department during five years period covered in the PA. In addition, the Department had also undertaken three<sup>6</sup> Transmission projects during the PA period. The observations relating to execution of these projects are discussed in the following paragraphs.

**2.3.9.1. Excessive margin allowed to suppliers.**

According to Rule 137 of GFR, every authority delegated with the financial powers of procuring goods in public interest shall have the responsibility and accountability to ensure efficiency, economy and transparency in performance of their duties. Further, while dealing with such purchase transactions, the said authorities are also supposed to give fair and equitable treatment to all suppliers so as to promote healthy competition in public procurement.

While examining the records of the eight works executed by the Department during 2009-14, Audit cross examined the supply rates of 40 material items under these works with reference to various documents relating to purchase and transportation of these materials as submitted by the suppliers to the Department.

It was observed that the rates charged by the suppliers from the Department for supply of material were exorbitantly high as compared to the actual cost paid by them (suppliers) to the manufacturers. In 9 out of 16 running account bills of the suppliers verified by Audit, it was observed that the Department had paid an amount of ₹ 33.04 crore towards supply of various items of material as against the actual cost of ₹ 12.02 crore paid by the suppliers to the manufacturers resulting in overall margin of ₹ 21.02 crore (175 *per cent*) to the suppliers as summarised in **Appendix -2.3.3**. It was further noticed that the percentage of margin kept by the suppliers against supplies of

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<sup>6</sup> (1) Transmission Line from Wokha to Doyang NH-61, (2) Upgradation of Sovima Substation, and (3) Construction of 33 KV Ringmain and associated Sub-station in Kohima under APDRP phase-II, Package-E

individual supply orders ranged between 33 and 763 per cent of the material cost as detailed in the table below:

**Table No. 2.3.3**

(₹ in crore)

Name of the work	Project Cost	Total value of the bill verified by audit	Name of the Supplier	Price paid for the cross checked items	Actual Cost paid by local firms to the manufacturing companies	Margin of suppliers (col. 7- col.6)	Percentage of margin (Col 8/7 x 100)
1	2	3	5	6	7	8	9
Engineering, Design, Supply, Erection, Testing & Commissioning of 132KV Single Circuit Transmission Line from Wokha to Doyang-NH-61	19.59	6.28	M/s Caravan Power & Construction (I) Pvt. Ltd	3.97	0.46	3.51	763
Upgradation and Modernization of 132/66 KV Mokochung Sub-station from 25 MVA to 50 MVA	27.84	4.07	M/s Techno Power Enterprises, Dimapur	4.08	0.76	3.32	437
Upgradation and Modernisation of 66/33 KV Tuli Sub-station from 7.5 MVA to 20 MVA.	18.26	14.03	M/s Singh Construction, Dimapur	9.18	2.29	6.89	301
Modernization and Up-gradation of 132/66/33 KV Kiphire Sub-Station	6.76	6.76	M/s Shyama Power (India) Pvt. Ltd. Haryana.	6.76	3.00	3.76	125
11 KV Associated Lines from Sovima Substation	3.89	1.42	M/s National Power System, Dimapur	1.00	0.22	0.78	355
Construction of 33 KV Ringmain and associated Sub-station in Kohima under APDRP phase-II, Package-E.	8.54	1.13	M/s Nezone Power System, Dimapur	1.13	0.71	0.42	59
Construction of 220 KV transmission line from Dimapur to Chiephobozou	84.20	7.52	M/s Nezone Power System, Dimapur	4.71	3.55	1.16	33
Up-gradation of Mon Sub-station	2.28	2.28	M/s Nezone Power System, Dimapur	2.20	1.03	1.17	114
<b>Total</b>	<b>173.36</b>	<b>43.68</b>		<b>33.04</b>	<b>12.02</b>	<b>21.02</b>	<b>175</b>

Thus, abnormally high margin allowed by the Department against procurement of material was unjustified and tantamount to undue favour to the suppliers against supply of the said materials.

While submitting replies to the PA, no specific comments were offered by the Department on the issue.

### 2.3.9.2. Sub-Station at Super Market Dimapur

The Department awarded<sup>7</sup> (March 2013) the work of construction of 33/11 KV, 10 MVA sub-station at Super Market Dimapur at a cost of ₹ 8.11 crore to M/s JA Brothers (Contractor). The work order *inter-alia* included supply of 3-ph 50 Hz, 33/11KV, ONAF, Cu Wound Outdoor Power Transformer-10 MVA (Transformer) at an estimated cost of ₹ 2.07 crore.

<sup>7</sup>Work order No.CEL/TB/Super MKT DMR/2012-13 dated 21 March 2013

**(i) Excessive margin**

During examination of records of the Department, it was revealed that the Contractor was paid an amount of ₹ 2.34<sup>8</sup> (including NVAT of ₹ 0.27 crore) against supply of the Transformer. Cross examination of Delivery Challan of the Transporter relating to the said Transformer revealed that the Contractor had actually procured the Transformer from Marson's Limited, Kolkota at a total cost of ₹ 0.47 crore (including transportation cost of ₹ 0.01 crore). Against the total procurement cost of ₹ 0.47 crore, the Contractor charged an amount of ₹ 2.34 crore from the Department for supply of the Transformer.

It may be noticed that the Contractor had kept a margin of ₹ 1.87 crore (398 per cent) against supply of Transformer to the Department, which was exorbitantly high and not justified.

**(ii) Payment before completion of work**

According to sub-clause (b) and (c) of CPWD Code, all items of work in a project, irrespective of their cost, shall be measured and recorded by the Officer-in-charge of the work not lower than the rank of Junior Engineer (JE). The Officer accepting the tender for any work was also required to record measurements himself or exercise 100 per cent check on the measurements recorded by his subordinate.

Examination of records revealed that the Contractor was paid (March 2014) ₹ 1.09 crore for designing, engineering and construction of control room building including supply of Tools & Plants, labour, cement, reinforcement steel, form work, excavation etc. Detailed examination of the Running Account bills (RA bills) and the Measurement Book (MB) relating to the work revealed that full payment of ₹ 1.09 crore was made to the Contractor by recording a single entry in RA bills and MB. During the joint physical verification (17 June 2014) of the project site by the Audit team and the representatives of the Department, it was revealed that the construction of control room building was pending for completion (June 2014) as shown in photograph below:-

**Photograph No.2.3.1**



**Photograph showing the ongoing construction of control room at Super Market**

It may be seen that contrary to the provision of CPWD Code, the Department released the full payment of ₹ 1.09 crore to the Contractor before actual completion of work

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<sup>8</sup>Voucher No.31 dated 20-11-2013

and without recording the detailed measurements of actual work executed by the Contractor.

The Department stated (October 2014) that directives would be issued to the EEs to furnish the MB and RA bills for necessary correction. The reply, however, did not address the issue of the payment already made before actual completion of work.

### **2.3.9.3. Avoidable expenditure**

The Department had completed the construction of 132 KV Transmission Line from Doyang to Wokha during the year 1997-98. The transmission line, however, could not be charged due to insistence by North East Electric Power Corporation (NEEPCO) for having Power Line Carrier Commission (PLCC) link system for charging of line. In absence of the said PLCC link system, NEEPCO refused to inject the energy into the transmission line. The PLCC link work commenced during 2004-05. In the meantime, it was reported that 9 towers of the transmission line (location 7 to 15) collapsed due to theft of conductors and tower parts. The Department again took up the work of restoration of the nine collapsed towers in the year 2006. The transmission line, however, could not be charged even after spending an expenditure of ₹ 1.16 crore on the restoration work.

The Department awarded (March 2013) restoration work of 17 towers and re-conductoring of 49.77 Km to M/s National Power Systems, Dimapur (Contractor) at an estimated cost of ₹ 7.37 crore. The Contractor was paid ₹ 4.88 crore against three RA bills.

During examination of records, it was revealed that prior to award (March 2013) of work of restoration of 17 towers, the Department had constituted (2009) a joint inspection team to assess the extent of damages to the transmission line. According to the report (December 2009) of the inspection team, one tower at location 33 collapsed which also affected the adjoining two towers and five more towers were found damaged.

It was, however, noticed that contrary to the findings of the joint inspection team regarding damage of total 8 towers, the Department awarded (March 2013) the work for supply and erection of 17 towers and re-conductoring of 49.77 Km to the Contractor at a work order value of ₹ 7.37 crore.

Thus, the Department awarded the work for supply and erection of nine additional towers involving the works cost of ₹ 1.28 crore which was not in line with the report of the joint inspection team.

While replying to the PA, the Department did not offer any comments on the issue.

### **2.3.9.4 Transmission line from Dimapur to Chiephobozou**

The Department took up (December 2010<sup>9</sup>) the construction of 220 KV Transmission Line from PGCIL Sub-station at Nagarjan, Dimapur to the new 100 MVA 220/132/33 KV Substation at Chiephobozou at a total cost of ₹ 49.58 crore (exclusive of NVAT).

<sup>9</sup>Work order No. CEL/TB/SSTL-CHP/A-006/1990-92, dated 9 December 2010.

The work order was amended<sup>10</sup> on two occasions (February/April 2011) incorporating additional items on the same terms and condition. The cost of the work order was, however, revised (February 2011 and April 2011) to ₹ 84.20 crore (exclusive of NVAT). The amended work order involved supply and erection of 199 Transmission towers. In this connection the following observations are made:

**(i) Excess projection of transmission tower**

From examination of the records, it was found that prior to issuing (December 2010) the work order, the Department had entrusted<sup>11</sup> the work (April 2009) of conducting the detailed survey of the Transmission line to M/S Polyon Constructions Pvt. Ltd. Hyderabad (Consultant). As per the technical survey report of the Consultant forwarded (February 2012) by the EE, Transmission Division, Kohima to the CE, only 180 towers of various specifications were required to be constructed from the tapping point to Chiephobozou Substation. It was, however, noticed that against the actual requirement of 180 towers involving an estimated cost of ₹ 40.01 crore, the Department issued work order for construction of 199 towers at a total cost of ₹ 46.05 crore. Thus, the Department issued work order for 19 additional towers over and above the requirement resulting in additional expenditure of ₹ 6.04 crore (**Appendix-2.3.4**).

**(ii) Additional projection on cost of cement**

As per sub-clause (i) of clause (xiv) of the work order (December 2010) issued by the Department, the cost of concrete works to be executed under the work order was inclusive of the cost of cement. It was however, observed that the Department in the second amendment to the work order (April 2011) included additional amount of ₹ 1.25 crore against supply of 26170 bags of cement which was not justified.

Thus, due to execution of additional works beyond the requirement and injudicious amendment to work order providing for the cement cost separately there was undue increase in the cost of the project by ₹ 7.29 crore.

The Department stated (October 2014) that amendment in original work was made based on actual field survey and change in scope of work to overcome technical deficiency.

The reply is not acceptable as the technical survey report was submitted after conducting actual field survey which clearly indicated that only 180 towers were required. Further, allowing additional amount against the cement cost was unwarranted in view of the fact that the scope of concrete work already included the cost of cement as well.

***Objective-3:- To assess the operation and maintenance of the power infrastructure.***

Electric-power transmission is the bulk transfer of electrical energy from generating power plants to electrical substations located near demand centres. Transmission lines, when inter-connected with each other become transmission networks. The

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<sup>10</sup> Nos. CEL/TB/SSTL-CHP/A-006/2039-41, dated 17 February 2011 and CEL/TB/SSTL-CHP/A-006/2120-21, dated 30 April 2011.

<sup>11</sup> Work order No. CEL/TB/SSTL-CHP/A-005/1163-65, dated 22 April 2009

combined transmission and distribution network is known as the Grid. Transmission lines carry high voltage electric power. The step-down transmission substation, thereafter, decreases voltages to sub transmission voltage levels for distribution to consumers. The distribution system includes lines, poles, transformers and other equipment needed to deliver electricity at specific voltages. Since electrical energy cannot be stored generation must be matched to need. Therefore, every transmission system requires a sophisticated system of control called grid management to ensure balancing of power generation closely with demand.

Examination of the records of the Department relating to operation and maintenance of the power infrastructure revealed the following:

**2.3.10.1 Energy import and own generation**

North East Region Load Despatch Centre (NERLDC) was the principal source for import of energy by the State. NERLDC maintained the data on the quantum of energy purchased by the State as well as energy input from its own generation. The data on the energy inputs from outside purchase as well as from own generation of the State is also simultaneously maintained by the State Load Despatch Centre (SLDC) and the office of the CE. Examination of information gathered from above three sources revealed variations in the quantum of energy purchased and own generation recorded by NERLDC, CE and SLDC as summarised below:-

**Table No.2.3.4**

Year	Energy Input as per NERLDC (In MU)		Energy Input as per SLDC (In MU)		Energy Input as per office of the Chief Engineer (In MU)	
	Import	Own Generation	Import	Own Generation	Import	Own Generation
2009-10	403.12	73.49	403.12	73.17	439.00	73.36
2010-11	451.05	70.15	451.05	75.60	502.10	76.34
2011-12	440.32	87.72	440.32	73.84	512.54	87.20
2012-13	453.35	92.85	453.30	95.57	479.38	95.76
2013-14	509.00	103.60	505.05	105.15	512.92	107.00
<b>Total</b>	<b>2256.84</b>	<b>427.81</b>	<b>2252.84</b>	<b>423.33</b>	<b>2445.94</b>	<b>439.66</b>

*Source:- NERLDC report and Departmental records*

As there were variations in the information provided by NERLDC, CE and SLDC, the actual quantum of own generation and energy purchased could not be authenticated and analysed. The inconsistencies in maintenance of basic data by three authorities indicated lack of transparency and non-existence of proper system of energy audit in the Department.

In reply (October 2014), the Department had accepted the facts.

**2.3.10.2 Energy Demand and Purchase Discipline**

Unscheduled generation and drawal of energy place the whole grid and other electrical equipment into danger due to dumping of large fluctuations in frequencies

in the system.

Unscheduled Interchange (UI) is the mechanism developed to improve grid efficiency by ensuring discipline, accountability and responsibility of the stakeholders. The UI mechanism requires imposing of penalty in the form of UI charges on those who deviate from the approved schedule of generation or drawal of energy.

The detailed examination of records of the Department revealed that during 2009-14, the Department had drawn total energy of 2256.84 MUs from NER grid which exceeded the scheduled energy by 374.23 MU (20 per cent) as given below:

**Table No.2.3.5**

<b>Year</b>	<b>Scheduled Energy (MU)</b>	<b>Energy actually drawn (MUs)</b>	<b>Difference in MUs (Column 3-2)</b>	<b>Percentage of Over-drawal (Column 4/2)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
2009-10	301.85	403.12	101.27	34
2010-11	353.74	451.05	97.31	28
2011-12	340.05	440.32	100.27	29
2012-13	411.52	453.35	41.83	10
2013-14	475.45	509.00	33.55	7
<b>Total</b>	<b>1882.61</b>	<b>2256.84</b>	<b>374.23</b>	<b>20</b>

Source: As per NERLDC figure

It can be seen that the percentage of over-drawal of energy against the scheduled energy declined from 34 per cent in 2009-10 to 7 per cent in 2013-14. The decreasing trend in the percentage of over-drawal during 2009-14 despite year-wise increase in the energy drawal by the Department was mainly due to consistent increase in allocation of energy from NERLDC. The Department, however, had to pay the UI charges of ₹101.46 crore (including additional UI charges of ₹ 8.34 crore) during five years period as discussed under **Para 2.3.10.3** *intra*, which indicated absence of effective monitoring and lack of discipline in consumption and drawal of energy.

### **2.3.10.3 Payment of UI Charges**

The Department needs to maintain discipline in generation and drawal of energy as per the schedule. In case of any deviation to the approved schedule of generation or drawal of energy, the Department was liable to pay the UI charges. Further, in case of over drawal of energy at the frequency level below 50.5 Hz. the Department was also liable to pay additional UI Charges.

Examination of records revealed that during 2009-14, the NERLDC had imposed a total UI Charges of ₹ 101.46 crore (including additional UI charges of ₹ 8.34 crore) on the Department due to over drawal of energy as per details given below:

Table No.2.3.6

Year	Actual UI charges payable as per NERLDC (₹ in crore)	Addl. UI charges payable	Total UI charges payable	UI charges paid including interest (₹ in crore)	Interest paid (₹ in crore)
1	2	3	4	5	6
2009-10	22.52	1.32	23.84	14.20	0.12
2010-11	20.31	2.08	22.39	20.89	0
2011-12	26.90	3.51	30.41	32.06	0.79
2012-13	15.70	1.31	17.01	22.10	0.39
2013-14	7.69	0.12	7.81	7.95	0.75
	<b>93.12</b>	<b>8.34</b>	<b>101.46</b>	<b>97.20</b>	<b>2.05</b>

Source: NERLDC figure

It can be seen that although the figures of year-wise UI charges payable showed decreasing trend after 2011-12, the amount of the UI charges paid during 2012-13 and 2013-14 was still significant and needs to be controlled by maintaining discipline in drawal of energy. Further, the Department had to bear an interest liability of ₹ 2.05 crore on account of delay in payment of UI which could have been avoided by prioritising the payments against UI Charges.

The Department stated (October 2014) that payment of UI Charges is unavoidable. Regarding delay in payment of UI Charges, it was added that being a Government Department, the power purchase fund is not always secured at all times.

The reply is not acceptable as the Department could have minimised the payment against UI Charges with efficient load management and could have also avoided the interest liability through prudent financial management.

#### 2.3.10.4 Technical and Commercial Loss

Aggregate Technical and Commercial (AT &C) loss<sup>12</sup> is difference between the quantum of energy injected in the system and the energy units against which payment is actually collected.

The details of transmission losses of the Department during the five years from 2009-10 to 2013-14 are given below:

<sup>12</sup>AT&C loss={1-(Billing efficiency x Collection efficiency)} x 100

Where

Billing Efficiency =  $\frac{\text{Total Units sold (MU)}}{\text{Total Input (MU) and}}$

Collection Efficiency =  $\frac{\text{Revenue collected (₹)}}{\text{Amount Billed (₹)}}$



**Table No.2.3.7**

Particulars	Unit	Year					Total
		2009-10	2010-11	2011-12	2012-13	2013-14	
Power received for transmission within the State	MU	497.69 <sup>13</sup>	543.43	549.69	550.54	604.68	2746.03
Net power billed/ sold within the State	MU	249.88	284.93	317.45	350.08	394.50	1596.84
Energy realised	MU	181.86	237.14	214.89	197.90	245.00	1076.79
Billing efficiency	Percentage	50.21	52.43	57.75	63.59	65.24	
Collection efficiency	Percentage	72.78	83.23	67.69	56.53	62.10	
Aggregate Technical and Commercial loss	Percentage	<b>63.46</b>	<b>56.36</b>	<b>60.91</b>	<b>64.05</b>	<b>59.48</b>	
	MU	<b>315.83</b>	<b>306.29</b>	<b>334.80</b>	<b>352.64</b>	<b>359.68</b>	<b>1669.24</b>
Less AT&C loss as per CEA norms	Percentage	15	15	15	15	15	
AT&C loss in excess of CEA norm	Percentage	<b>48.46</b>	<b>41.36</b>	<b>45.91</b>	<b>49.05</b>	<b>44.48</b>	
	MU	<b>241.18</b>	<b>224.76</b>	<b>252.36</b>	<b>270.04</b>	<b>268.96</b>	<b>1257.30</b>
Average Domestic consumers realization rate	In ₹	3.79	3.79	3.79	4.15	4.38	
Actual AT&C loss at realization rate	₹ in crore	91.41	85.19	95.64	112.07	117.81	502.12

Source: Departmental figure

It can be seen that the overall percentage of AT&C losses during the last five years varied between 56.36 per cent (2010-11) and 64.05 per cent (2012-13) which had exceeded the CEA norms by 41.36 per cent (2010-11) to 49.05 per cent (2012-13). The quantum of AT&C loss above the CEA norm was 1257.30 MU valuing ₹ 502.12 crore<sup>14</sup> during 2009-10 to 2013-14.

While submitting reply to the PA, the Department did not offer any comments on the issue.

### 2.3.10.5 Defective meters

To examine the reasons for AT&C losses, the year-wise information on the number of defective meters existing under the four test checked distribution divisions during 2009-10 to 2013-14 was obtained, which is summarised as under:

**Table No.2.3.8**

Name of the Division	2009-10	2010-11	2011-12	2012-13	2013-14
Kohima	4166	4577	3605	3418	3289
Dimapur	2935	4196	1327	1050	419
Chumukedima	3541	2250	2677	2679	1324
Mokokchung	5021	3986	3487	2464	3248
<b>Total</b>	<b>15663</b>	<b>15009</b>	<b>11096</b>	<b>9611</b>	<b>8280</b>

Source: Departmental figure

As could be seen from the above table, during the five years from 2009-10 to 2013-14, the total number of defective meters in four selected divisions ranged between 8280 (2013-14) and 15663 meters (2009-10).

<sup>13</sup> Net of system losses from supplier's generating point to the energy receiving point of the Department.

<sup>14</sup> Worked out on the basis of average realization rate of domestic consumers

The energy consumed by the consumers against defective meters was billed on average basis, which contributed towards short fall in the annual revenue targets set by the Department. Although there has been a decreasing trend in the year-wise figures of the defective meters in four divisions, the Department needs to take appropriate steps to replace all defective meters within the prescribed time limits so as to minimise the revenue leakages on this account.

While submitting reply to the PA, the Department did not offer any comments on this issue.

#### 2.3.10.6 Consumers without meter

As per the information obtained from the four test checked divisions it was observed that during 2009-14, the total number of regular consumers without meters ranged between 1686 consumers (2013-14) and 6767 consumers (2009-10) as detailed in the following table:

Table No.2.3.9

Name of the Division	2009-10	2010-11	2011-12	2012-13	2013-14
Kohima	76	124	87	80	58
Dimapur	0	0	0	0	0
Chumukedima	5309	4921	4990	5002	1603
Mokokchung	1382	558	289	75	25
<b>Total</b>	<b>6767</b>	<b>5603</b>	<b>5366</b>	<b>5157</b>	<b>1686</b>

Source:- Departmental figure

From the table it can be seen that although the year-wise number of un-metered consumers was on decreasing trend during five years period, the Department needs to provide 100 *per cent* metering so as to avoid loss of revenue on this account.

No specific reply was offered by the Department on this issue.

#### 2.3.10.7 Operations of Likhimro Hydro Electric Project

The Likhimiro Hydro Electric Project (LHEP) is the only source of own Generation for the Department. The Department, however, did not have the technical competence to operate the LHEP. As such, the Department had leased<sup>15</sup> out (March 2008) the Operation and Maintenance of the LHEP to NEC Energy Private Limited (Lessee) for a period of 10 years from the date of signing of the agreement. As per the Lease Agreement, the Lessee was required to generate 105.12 MU of energy per annum. The energy so generated by the lessee from LHEP, was to be purchased by the Department at the rate of ₹ 1.17 per Kilowatt Hour (KwH). The rate of energy was subject to upward revision every two years at a rate of ₹ 0.05 per KwH.

<sup>15</sup>Agreement signed on 23 March 2006

Examination of records of the Department revealed the following:-

**(i) Excess payment**

During 2009-10 to 2013-14, the Department had paid an amount aggregating ₹ 57.10 crore to the Lessee against the cost of energy generated from LHEP. The comparative details of actual energy received by the Department from LHEP for distribution by SLDC vis-a-vis the cost of energy paid to the Lessee for the years from 2009-10 to 2013-14 are as under:-

**Table No.2.3.10**

(₹ in crore)

As per bill and payment vouchers of Lessee				As per SLDC records			
Year	Energy (MU)	Amount paid	Admissible rate as per MOU	Actual Energy received	Difference in energy (MU)	Amount actually payable	Excess amount paid to NEC Energy Ltd.
2009-10	76.36	9.32	₹ 1.22	73.17	3.19	8.93	0.39
2010-11	74.36	10.35	₹ 1.27	75.60	-1.24	10.35	0
2011-12	87.20	11.07	₹ 1.27	73.84	13.36	9.37	1.70
2012-13	95.76	12.61	₹ 1.32	95.56	0.20	12.61	0.00
2013-14	104.15	13.75	₹ 1.32	104.15	0	13.75	0
<b>Total</b>	<b>437.83</b>	<b>57.10</b>		<b>422.32</b>	<b>15.51</b>	<b>54.99</b>	<b>2.09</b>

Source: Departmental records

From the above table, it could be seen that as per the records of the State Load Dispatch Centre (SLDC) the Department has received 422.32 MU of energy during the last five years 2009-14. As against this, the Department had made payment to the Lessee towards the cost of 437.83 MUs of energy resulting in excess payment of ₹ 2.09 crore against 15.51 MU of energy.

While submitting reply to the PA, the Department did not offer any comment on the issue.

**(ii) Expenditure on import of energy.**

Since LHEP was the only source of own generation for the State, any shortfall in Generation by LHEP necessitates the State to resort to import of energy at higher rates so as to meet the energy requirement of the State.

As per the agreed terms of the Lease Agreement, the Lessee was required to generate minimum 105.12 MUs of energy per annum from LHEP and supply the same to the Department. It was, however, noticed that during the years from 2009-10 to 2013-14, the own Generation under LHEP ranged between 73.17 MUs (2009-10) and 104.15 MUs (2013-14) aggregating to total Generation of 422.32 MUs as against the assured minimum generation of 525.60 MUs in five years period. Hence, there was a shortfall of 103.28 MUs of energy against the agreed generation in five years which had to be compensated by the Department through import of energy from outside sources causing an extra expenditure of ₹ 16.63 crore on this account.

While confirming the facts, the Department stated (October 2014) that the variation was on account of rainfall pattern and scheduled plant shut down for minor and major maintenance works.

While appreciating the contention of the Department it may be mentioned that the Department had to bear extra expenditure on procurement of energy to the extent of shortfall in assured generation by the Lessee.

#### **2.3.10.8 Duilum Roi MHEP**

The Duilum Roi Mini Hydel Project was commissioned (8 November 1991) at a total cost of ₹ 2.13 crore. It was observed that during the last five years ending 2013-14, the plant generated 1.445 MU of energy. It was further observed that till date (September 2014) the supply of energy generated from the plant was not synchronized with the grid. In the absence of information on retail sale of energy to consumers, the actual utilisation of the energy generated from Duilum Roi MHEP and its impact on revenue generation could not be assessed.

The Department stated (October 2014) that the plant was designed to operate in isolation with the grid and during good monsoons, nearby villages connected with the grid are fed from the plant.

The Department, however, could not furnish the details of revenue earned out of the energy generated from the plant.

#### **2.3.10.9 State Load Despatch Centre (SLDC)**

The Department commissioned (January 2004) Remote Terminal Unit (RTU) network to enable real time load management with backup facilities at 132 KV sub-station at Dimapur known as the State Load Dispatch Centre. It was, however, observed that against four RTUs installed at import/export points (Dimapur, Kohima, Aolichen and Naginimora), only two RTUs (Dimapur and Kohima) were functional and therefore, the Department was unable to exercise adequate control in monitoring of the load flow on real time basis. It was further noticed that the SLDC was not provided with adequate manpower and infrastructure. As such, the SLDC could not monitor and assess the data of actual energy injected to the sub-stations and its utilisation.

Thus, absence of dedicated SLDC and functional RTUs impeded assessment of actual input of energy in Transmission, Sub-transmission and Distribution networks.

While submitting the reply to the PA, the Department did not offer any comment on the issue.

***Objective-4:- To assess the efficiency and effectiveness of the Financial Management system of the Department.***

#### **2.3.11.1 Budget and Expenditure Control**

The year wise position of budget allocation vis-a-vis actual expenditure of the Department for the last five years ending 2013-14 is given below:

**Table No.2.3.11**

(₹ in crore)

Year	Budget		Actual		Excess (+)/savings (-)	
	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan
2009-10	100.86	168.58	90.41	168.58	(-) 10.45	0
2010-11	72.58	220.89	59.27	220.89	(-) 13.31	0
2011-12	100.90	291.37	77.18	291.37	(-) 23.72	0
2012-13	122.70	296.41	72.06	298.45	(-) 50.64	(+) 2.04
2013-14	111.48	308.99	57.98	286.42	(-) 53.50	(-) 22.57
<b>Total</b>	<b>508.52</b>	<b>1286.24</b>	<b>356.90</b>	<b>1265.71</b>	<b>(-) 151.62</b>	<b>(-)20.53</b>

Source:-Departmental figures

It can be seen that the Department could not utilise the funds provided under Plan head in any of the five years from 2009-10 to 2013-14 covered in the PA. The unutilised budget allocation under the Plan head showed an increasing trend during the period 2009-14 and the same ranged between ₹ 10.45 crore (2009-10) and ₹ 53.50 crore (2013-14). Under the Non-Plan head, there was under utilisation of budget allocation to the extent of ₹ 22.57 crore in one year (2013-14) out of five years. The trend of significant savings under the Plan head during the five years covered under the PA was indicative of the inadequacy of capital expenditure incurred by the Department on creation of the power infrastructure in the State.

#### **2.3.11.2 Non-reconciliation of Expenditure figures**

The Accountant General (Accounts & Entitlements), Nagaland ((AG (A&E)) prepares the Appropriation Accounts of the State Government each year summarising the Department wise figures of actual expenditure vis-à-vis budget allocation under the Plan and Non-Plan heads. The expenditure figures are obtained by AG (A&E) from the Monthly Accounts and Expenditure vouchers furnished by the State Government Departments through the State Treasuries.

During the course of the present PA, year-wise figures of the expenditure for the years 2009-10 to 2013-14 were obtained from the Department of Power (Department). It was, however, noticed that the figures of year-wise expenditure as furnished by the Department were at variance with the figures booked in the Appropriation Accounts of the Government as detailed below:

**Table No.2.3.12**

(₹ in crore)

Year	Final Expenditure as per appropriation accounts (Both revenue and capital)	Total expenditure as furnished by the Department	Difference
2009-10	243.51	261.21	17.70
2010-11	280.04	285.46	5.42
2011-12	376.69	390.27	13.58
2012-13	428.07	388.05	40.02
2013-14	371.39	349.80	21.59

According to the arrangement in place, it is the responsibility of the Department to reconcile the departmental figures of expenditure with the figures in the books of the

State Treasuries and the AG (A&E) regularly so as to have proper control over the flow of expenditure as well as to avoid possibilities of any misclassification, misappropriation or fraud. However, the Department did not reconcile the figure of expenditure during the period of PA. As a result, the differences in the figure of expenditure remained unexplained.

While accepting the facts (October 2014) the Department assured that necessary steps would be taken to reconcile differences in the figures.

### 2.3.11.3 Diversion of fund

The National Bank for Agriculture and Rural Development (NABARD) sanctioned a loan (₹ 29.92 crore) bearing interest of 6.5 *per cent* in favour of the Department for implementation of five hydro electric projects<sup>16</sup>.

As per the loan agreement, the loan amount was to be utilised for the intended purposes only and any diversion of loan funds on other purposes was prohibited. During examination of records, it was observed that out of the total loan amount of ₹ 25.36 crore availed (March 2009/June 2010) by the Department, an amount of ₹ 8.55 crore only was utilised for intended purpose while an amount aggregating ₹ 15.90 crore was remitted (October 2011) to Government Accounts as per the direction of the Finance Department. The balance amount of ₹ 0.91 crore was diverted (December 2010 and March 2011) by the Department towards procurement of vehicle, bull dozers and excavator (JCB) in violation of the loan agreement.

The Department availed (March 2013) another loan of ₹ 4.56 crore from NABARD for implementation of Doyang Project Phase III-V incorporated in the 11<sup>th</sup> Five Year Plan. It was, however, noticed that excepting the construction of link road to Doyang Hydro Electric Project (DHEP) at a cost of ₹ 1.32 crore, no other project activity was taken up by the Department so far (September 2014). Further, out of the remaining project fund of ₹ 3.24 crore, an amount of ₹ 0.68 crore was diverted (October 2013-February 2014) by the Department towards procurement of vehicles. The balance loan amount of ₹ 2.56 crore was retained by the Hydel Construction Division of the Department (November 2014).

Irregular diversion of the project fund on procurement of vehicles, bull dozers and excavator had hampered the implementation of the projects as per the approved schedule.

While accepting the facts (October 2014) the Department stated that the funds were diverted as per the Government directive.

The reply is not acceptable as diversion of project funds in violation of loan conditions was irregular and had caused adverse impact on implementation of the projects.

<sup>16</sup>Lang MHEP; Tulo MHEP; Doyang Stage-III; Doyang Stage-V; Rio Road Doyang and Tohok MHEP

### 2.3.11.4 Target and Achievement of Revenue

The year-wise position of targets fixed by the Department for collection of revenue and actual achievement there-against for the years from 2009-10 to 2013-14 in respect of four out of ten D&R divisions test checked in Audit is given below:-

**Table No. 2.3.13**

(₹ in crore)

Year	2009-10	2010-11	2011-12	2012-13	2013-14
<b>Kohima Division</b>					
Revenue target	10.50	12.04	26.87	26.60	34.03
Actual achievement	10.25	12.04	17.92	18.02	22.88
<b>Dimapur Division</b>					
Revenue target	NA	27.14	40.56	81.93	96.65
Actual achievement	21.58	24.18	29.45	29.18	35.04
<b>Chumukedima Division</b>					
Revenue target	4.41	6.26	16.54	13.92	17.54
Actual achievement	4.00	5.27	6.85	6.53	7.76
<b>Mokokchung Division</b>					
Revenue target	2.73	3.79	9.33	8.83	10.41
Actual achievement	2.74	2.75	4.14	4.87	5.25
<b>Total revenue target</b>	<b>17.64<sup>17</sup></b>	<b>49.23</b>	<b>93.30</b>	<b>131.28</b>	<b>158.63</b>
<b>Total achievement (per cent)</b>	<b>16.99</b> <b>(96.30)</b>	<b>44.24</b> <b>(89.90)</b>	<b>58.36</b> <b>(62.60)</b>	<b>58.60</b> <b>(44.60)</b>	<b>70.93</b> <b>(44.70)</b>
<b>Short fall (per cent)</b>	<b>0.65</b> <b>(3.70)</b>	<b>4.99</b> <b>(10.10)</b>	<b>34.94</b> <b>(37.40)</b>	<b>72.68</b> <b>(55.40)</b>	<b>87.70</b> <b>(55.30)</b>

*Source: Departmental figure*

It could be seen that excepting marginal increase of 0.10 *per cent* during 2013-14, the percentage of actual collection against the year-wise revenue targets fixed in four test checked divisions during 2010-11 to 2013-14 was showing a decreasing trend. As against the short fall of ₹ 4.99 crore (10.10 *per cent*) in achievement of revenue targets during 2010-11, the actual collection of revenue during 2013-14 fell short of the targets by ₹ 87.70 crore (55.30 *per cent*). The deficiency in achievement of the revenue targets was attributable to inefficiencies in the billing and collection process as discussed in succeeding paragraphs.

While submitting reply to the PA, the Department did not offer any comment on this issue.

### 2.3.11.5 Billing and Collection efficiency

#### (i) Billing Efficiency

Billing efficiency<sup>18</sup> ratio is an indicator of the efficiency of an organisation in billing of the recoverable dues against the energy actually supplied (both metered and un-metered) in an area.

<sup>17</sup> Excluding Dimapur Division for 2009-10.

<sup>18</sup> Billing Efficiency =  $\frac{\text{Total Units Sold (kWh)} \times 100}{\text{Total Input (kWh)}}$

During the period of five years covered under the PA, total 2746.03 MU of energy was injected into the system out of which bills were raised for only 1596.84 MU (58 per cent ). The bills for the balance 1149.19 MU (42 per cent) of energy valued at ₹ 393.16 crore were not raised as detailed below:-

**Table No. 2.3.14**

(Money value ₹ in crore)

Particulars	2009-10		2010-11		2011-12		2012-13		2013-14		Total	
	In MU	Money Value	In MU	Money Value	In MU	Money Value	In MU	Money Value	In MU	Money Value	In MUs	Mone Value
Energy input	497.69	116.13	543.43	148.57	549.69	210.09	550.54	211.00	604.68	186.03	2746.03	871.82
Energy billed	249.88	64.96	284.93	75.33	317.45	103.84	350.08	113.88	394.50	120.65	1596.84	478.66
<b>Difference</b>	<b>247.81</b>	<b>51.17</b>	<b>258.50</b>	<b>73.24</b>	<b>232.24</b>	<b>106.25</b>	<b>200.46</b>	<b>97.12</b>	<b>210.18</b>	<b>65.38</b>	<b>1149.19</b>	<b>393.16</b>
<b>Percentage of energy input and billed</b>	<b>50</b>		<b>52</b>		<b>58</b>		<b>64</b>		<b>65</b>		<b>58</b>	

Source: Departmental figure

Though the overall trend of billing efficiency during the five years showed an improvement from 50 per cent (2009-10) to 65 per cent (2013-14), 35 per cent of the energy was not billed in 2013-14 which was quite significant and involved a revenue loss of ₹ 65.38 crore for the year. The revenue loss on this account during the five year period was at ₹ 393.16 crore, which was substantial and warrants for immediate attention of the Department for taking appropriate remedial action.

The efficiency of billing was examined in detail in respect of the four out of ten D&R divisions test checked by Audit. The year-wise position of the energy input and billed for the years from 2009-10 to 2013-14 under these four divisions was as follows:-

**Table No. 2.3.15**

Year	2009-10	2010-11	2011-12	2012-13	2013-14
<b>Kohima Division</b>					
Energy Input (in MU)	76.27	84.34	85.72	82.68	84.61
Energy billed (in MU)	46.64	45.78	40.75	61.80	66.97
<b>Billing efficiency</b>	<b>61</b>	<b>54</b>	<b>48</b>	<b>75</b>	<b>79</b>
<b>Dimapur Division</b>					
Energy Input (in MU)	166.41	181.75	205.78	199.79	177.08
Energy billed (in MU)	104.54	101.11	103.35	94.72	89.67
<b>Billing efficiency</b>	<b>63</b>	<b>56</b>	<b>50</b>	<b>47</b>	<b>51</b>
<b>Chumukedima Division</b>					
Energy Input (in MU)	47.96	55.24	46.46	44.37	48.13
Energy billed (in MU)	18.10	18.92	22.72	22.17	19.83
<b>Billing efficiency</b>	<b>38</b>	<b>34</b>	<b>49</b>	<b>50</b>	<b>41</b>
<b>Mokokchung Division</b>					
Energy Input (in MU)	38.36	48.64	39.46	38.22	38.23
Energy billed (in MU)	17.27	21.03	20.76	21.61	20.81
<b>Billing efficiency</b>	<b>45</b>	<b>43</b>	<b>53</b>	<b>57</b>	<b>54</b>

Source: Departmental figure

The position of billing efficiency in the four test checked divisions was as under:



**Kohima:-** The billing efficiency showed an improving trend after 2011-12. The billing efficiency of the division during 2013-14 (79 per cent) was the highest among the four divisions test checked.

**Dimapur:-** The billing efficiency continuously decreased from 63 per cent in 2009-10 to 47 per cent in 2012-13 and marginally increased to 51 per cent in 2013-14.

**Chumukedima:-** The billing efficiency in Chumukedima was the lowest among the four divisions and the same stood at 41 per cent during 2013-14.

**Mokokchung:-** The billing efficiency varied between 43 per cent (2010-11) and 57 per cent (2012-13) during the five years.

The position of the billing efficiency in four test check divisions as explained above is a pointer towards possibilities of lacunae in billing system as well as existence of large number of consumers with defective meters. Further the possibility of manipulation in meter readings also could not be ruled out.

While submitting the reply to the PA, the Department did not offer any comment on the issue.

**(ii) Collection Efficiency**

The ratio of amount collected to the total amount billed is termed as collection efficiency. Collection efficiency is measured using formula given in footnote<sup>19</sup>.

During the period of five years covered under the PA, it was noticed that as against total 1596.84 MU of energy (valuing ₹ 478.66 crore) billed during 2009-14, the Department could collect an amount of ₹ 312.99 crore only leaving an unrealised amount aggregating ₹ 165.67 crore. The overall collection efficiency of the Department during the period covered in audit ranged between 57 per cent (2012-13) and 83 per cent (2010-11) as detailed below:-

**Table No.2.3.16**

(₹ in crores)

Particulars	2009-10		2010-11		2011-12		2012-13		2013-14		Total	
	In MU	Money Value	In MU	Money Value	In MU	Money Value	In MU	Money Value	In MU	Money Value	In MUs	Money value
Energy billed	249.88	64.96	284.93	75.33	317.45	103.84	350.08	113.88	394.50	120.65	1596.84	478.66
Cost of Energy realised	181.86	44.76	237.14	52.02	214.89	64.58	197.90	67.73	245.00	83.90	1076.79	312.99
Difference	68.02	20.20	47.79	23.31	102.56	39.26	152.18	46.15	149.50	36.75	520.05	165.67
Percentage of energy realised to energy billed	73		83		68		57		62		67	

Source: Departmental figure

<sup>19</sup>Collection Efficiency=  $\frac{\text{Revenue Collected (in ₹)} \times 100}{\text{Billed Amount (in ₹)}}$

The position of revenue collection in the four test checked divisions was as under:-

**Table No.2.3.17**

Year	2009-10	2010-11	2011-12	2012-13	2013-14
<b>Kohima Division</b>					
Cost of energy sold (₹ in Crore)	11.94	12.36	18.34	32.89	26.79
Revenue collected (₹ in Crore)	10.25	12.04	17.92	18.02	22.88
<b>Percentage in collection efficiency</b>	<b>86</b>	<b>97</b>	<b>98</b>	<b>55</b>	<b>85</b>
<b>Dimapur Division</b>					
Cost of energy sold (₹ in Crore)	30.46	29.94	38.05	49.02	51.49
Revenue collected (₹ in Crore)	21.69	23.70	27.88	27.75	35.04
Percentage in collection efficiency	71	79	73	57	68
<b>Chumukedima Division</b>					
Cost of energy sold (₹ in Crore)	4.95	6.10	8.81	10.26	15.63
Revenue collected (₹ in Crore)	4.00	5.27	5.88	6.56	7.76
Percentage in collection efficiency	81	86	67	64	50
<b>Mokokchung Division</b>					
Cost of energy sold (₹ in Crore)	5.51	6.71	8.50	6.90	6.87
Revenue collected (₹ in Crore)	2.74	2.74	4.14	4.87	5.25
Percentage in collection efficiency	50	41	49	71	76

Source: Departmental figure

The collection efficiency in Kohima Division showed an increasing trend during 2013-14 excepting one year (2012-13). The collection efficiency in Kohima division was the highest among four divisions at 85 per cent during 2013-14.

In Dimapur Division, the collection efficiency showed a decreasing trend during 2011-13. The collection efficiency however, marginally improved to 68 per cent during 2013-14.

The collection efficiency of Chumukedima Division showed a decreasing trend after 2010-11 and was at the lowest (50 per cent) among four divisions during 2013-14.

Mokokchung Division recorded significant improvement in the collection efficiency after 2010-11 and was at 76 per cent during 2013-14.

The inefficiency in collection indicated lack of effective monitoring and prompt action by the Department against the defaulters which might include disconnection of supply.

While accepting the facts (October 2014) the Department stated that a High Power Committee headed by the Chief Secretary had been constituted to recommend both short and long term measures to improve commercial performance of the Department.

### **2.3.11.6 Revenue Arrears**

Revenue earned through sale of energy is accounted as non-tax revenue of the State Government. The revenue collected during the year is then routed through budgetary support for allocation to various Departments of the State Government under Plan and Non-Plan heads. For revenue deficit State like Nagaland, timely realisation and

deposit of the revenue by the Department into the Government Account is essential for the State Government to assess and prioritise the sectors for allocation of funds.

During the last five years, the four out of ten D&R division test checked by Audit had reported significant revenue arrears as shown below:-

**Table No.2.3.18**

Name of the Division	Revenue Arrears (₹ in crore)				
	2009-10 <sup>20</sup>	2010-11	2011-12	2012-13	2013-14
Kohima	11.40	12.89	14.23	18.59	24.92
Dimapur	58.35	64.91	74.04	95.36	120.42
Chumukedima	7.11	8.18	11.70	14.30	18.00
Mokokchung	NA	1.32	1.50	2.00	2.47
<b>Total</b>	<b>76.86</b>	<b>87.30</b>	<b>101.47</b>	<b>130.25</b>	<b>165.81</b>

From the above table it could be seen that during the period of five years from 2009-10 to 2013-14, the revenue arrears had accumulated by 116 *per cent* from ₹ 76.86 crore (excluding Mokokchung division) in 2009-10 to ₹ 165.81 crore in 2013-14.

Accumulation of huge revenue arrears indicated lack of transparency in collection process and ineffective monitoring of dues receivable, which warrant for immediate attention of the Department for remedial action.

While submitting reply to the PA, the Department did not offer any comment on the issue.

#### **2.3.11.7 Retention of Revenue**

According to sub-clause 1 of Rule 6 of Receipt and Payment Rules, all moneys received by or tendered to Government officers on account of revenues or dues of the Government are required to be remitted into the accredited bank without undue delay for inclusion in Government Account.

During the last five years ending 2013-14, the EEs of three test checked D&R Divisions collected a revenue of ₹ 247.67 crore out of which an amount of ₹ 247.40 crore was deposited to the Government Account. In the absence of necessary information/records, the extent of delays in remitting the cash collection to Government Accounts in individual cases could not be analysed by Audit. It was, however, observed that the three EEs had irregularly retained the daily revenue cash collection ranging from ₹ 0.13 crore to ₹ 0.49 crore at the end of each year during 2009-14 as shown below:-

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<sup>20</sup> Including the opening revenue arrears as on 31 March 2009

Table No.2.3.19

(₹ in crores)

Year	Opening Balance	Revenue collected during the year	Amount deposited to Govt. account	Amount retained at the end of the financial year
2009-10	0.21	35.67	35.71	0.17
2010-11	0.17	41.32	41.36	0.13
2011-12	0.13	52.43	52.43	0.13
2012-13	0.13	52.81	52.45	0.49
2013-14	0.49	65.44	65.45	0.48
<b>Total</b>		<b>247.67</b>	<b>247.40</b>	<b>0.48</b>

Source:-Department figure

Undue retention of cash collected against Government revenue is not only against the canon of financial propriety but is also susceptible to misappropriation of funds. During examination of records of the Department it was also noticed that there were three instances of misappropriation of revenue to the tune of ₹ 0.52 crore by the employees of the Department during the period covered in the PA.

The Department in reply stated (October 2014) that retention is unavoidable as revenues are collected at multiple counters. However, the Department assured to take corrective measures to reduce the amount of retention.

While appreciating the reply, it may be stated that the Department should ensure that the entire revenue collected is remitted to the Government Account without undue delay.

**Objective-5:- To assess the adequacy and effectiveness of the monitoring mechanism of the Department.**

Monitoring is a systematic and timely collection of information from all levels. Monitoring enables the decision making authority to evaluate and manage utilisation of available resources based on the past experiences.

### 2.3.12 Deficient monitoring

Examination of records revealed inadequacies in the monitoring mechanism of the Department. There were inconsistencies in the data maintained by different authorities regarding the quantum of energy purchased, energy generated from own sources, energy input into the system etc. Further, remedial measures were not taken by the higher authorities to address the shortfall in achievement of performance targets and deficiencies in billing and collection of revenue.

While submitting reply to the PA (October 2014), the Department did not offer any comment on the issue.

## **Conclusion**

The State was highly dependent on purchase of energy from Central Generating Stations on account of limited own generation capacity. The Department did not have sufficient financial resources of its own for implementation of power projects. Therefore, the short term plans prepared by the Department for development of power infrastructure in the State were based solely on the anticipated availability of project funds under Centrally Sponsored Schemes and the grants/loans from North Eastern Council/Financial Institutions. The Department could complete only 5 projects (1 Generation and 4 Transmission) out of 15 major projects proposed for execution under the 11<sup>th</sup> Five Year Plan (2007-12) as of September 2014.

The management and execution of projects by the Department was not efficient and economic. The Department allowed exorbitantly high margin of upto 763 *per cent* to the suppliers in respect of eight major works executed during 2009-14. Instances of incurring avoidable capital expenditure were also noticed on account of execution of work components beyond actual requirement.

Inconsistencies were noticed in maintenance of basic data relating to actual quantum of own generation and energy purchased indicating lack of transparency and non-existence of a proper system of Energy Audit in the Department. The Department also failed to maintain effective discipline in drawal of energy as per the approved schedule resulting in avoidable payment of Unscheduled Interchange (UI) charges of ₹ 101.46 crore during 2009-14. The quantum of Aggregate Technical & Commercial (AT&C) Losses incurred by the Department exceeded the Central Electricity Authority (CEA) norms in all five years. The outsourced operations of the Likhimro Hydro Electric Project (LHEP) were also not satisfactory which necessitated import of additional energy at higher costs.

The Department of Power also did not also utilise an amount of ₹ 151.62 crore out of the budget allocations made by the State Government for capital works under the Plan head during 2009-14.

The billing and collection efficiency of the Department was dismal as bills were not raised against 42 *per cent* of the energy injected into the system and 33 *per cent* of the energy bills raised remained unrealised.

The monitoring mechanism of the Department was not effective in the absence of proper systems for taking remedial measures to address the inconsistencies in maintenance of various data and shortfall in achieving the targets.

## **Recommendation**

- The Department should make efforts to increase its own generation capacities by effectively utilising the budget allocations made by the Government to reduce dependency on outside purchase of power.
- The execution of the projects should be planned after conducting detailed feasibility study and duly considering the state specific requirements through comprehensive surveys.

- The project works should be awarded after conducting market survey to avoid extra financial payments.
- The Department should devise effective systems to ensure efficient billing and collection of revenue.
- A proper system should be introduced for conduct of periodic Energy Audit in the Department.

## IRRIGATION AND FLOOD CONTROL DEPARTMENT

### 2.4 Performance audit on the implementation of Accelerated Irrigation Benefit Programme

The main activities of the Irrigation & Flood Control Department are construction of irrigation projects under Accelerated Irrigation Benefit Programme (AIBP) with an objective to create sufficient Irrigation Potential in the State to provide Sustainable Agriculture to increase food production and economic viability of the farming community. To assess the impact of AIBP in the State a performance audit for the period 2009-14 was conducted. The major observations noticed are highlighted below:

#### **Highlights**

*Projects were selected without conducting surveys. As a result, 14 projects for ₹ 1.70 crore were constructed in areas without water sources and 8 projects for ₹ 3.64 crore beyond the vicinity of Culturable Command Areas.*

**(Paragraphs 2.4.7.3, 2.4.7.5 & 2.4.7.6)**

*An amount of ₹ 0.73 crore was paid based on fictitious measurements though the projects were either incomplete or abandoned.*

**(Paragraph 2.4.9.2)**

*Three projects were abandoned due to non-maintenance/poor workmanship which resulted in unfruitful expenditure of ₹ 4.62 crore.*

**(Paragraph 2.4.9.4)**

*Ineffective participatory irrigation management system led to non-maintenance of 87 projects valued at ₹ 35.30 crore. Besides, a completed project (₹ 2.30 crore) remained un-utilised due to non-provision of CC channel.*

**(Paragraph 2.4.10)**

*Monitoring cell did not carry out proper monitoring during implementation of Minor Irrigation projects.*

**(Paragraph 2.4.11)**

*Impact of the AIBP could not be assessed due to non-maintenance of records on actual creation of Culturable Command Areas, the total area irrigated, cropping intensity and patterns etc.*

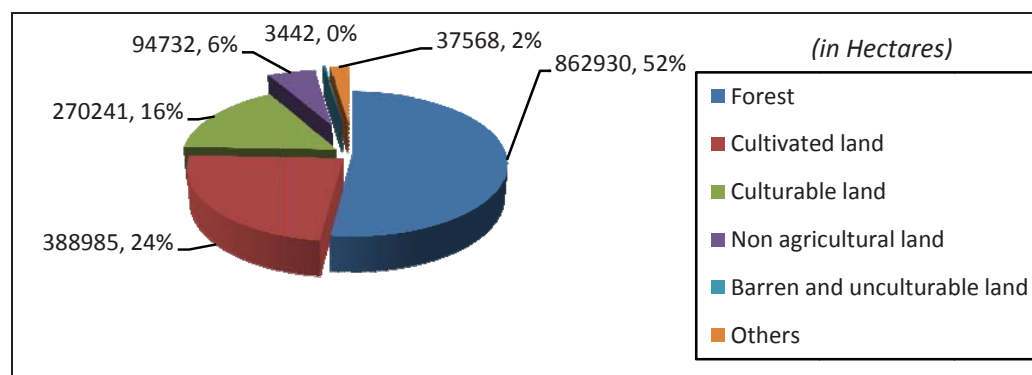
**(Paragraph 2.4.12)**

## **2.4.1 Introduction**

### **2.4.1.1 Profile of Nagaland**

Nagaland is predominantly a hilly State where over 89 per cent of the population is dependent on agriculture for their livelihood. Water plays the most vital role for successful agriculture produce. The overall land use pattern in the State shows that 52 per cent of the land is covered with forests (chart 1). After deducting the barren land and area under non-agricultural use, 24 per cent of the land holds potential for being brought under cultivation.

**Chart-1**  
**Land use pattern in Nagaland (2008-09)**  
(Source: Departmental figure)



### **2.4.1.2 Accelerated Irrigation Benefit Programme**

The Government of India (GoI) introduced Accelerated Irrigation Benefit Programme (AIBP) in Nagaland during 1999-2000 with 468 projects to irrigate 13772 hectares of potential land. From the inception of the programme till 2008-09, 1133 minor irrigation projects had been implemented with the target of creating 40680 hectares of culturable command areas (CCA) at a cost of ₹ 235.74 crore. During 2009-14 a total of 548 projects to irrigate 29847 Ha potential land were taken up at a cost of ₹ 361.75 crore out of which, 393 were completed till the end of March 2014 and 155 are ongoing. AIBP consisted of the following three programmes namely (i) Flood Management (ii) Command Area Development & Water Management and (iii) Minor Irrigation.

The present performance audit covered only two programmes (Flood Management and Minor Irrigation). The programme on implementation of Command Area Development & Water Management was not considered as the expenditure was very meagre (₹ 0.28 crore).

#### **(i) Flood Management**

The Flood Management Programme is implemented in areas where the infrastructure, townships, communications, human habitations etc., are threatened due to erosion of river bank. It is also implemented to mitigate the flood in rivers and drainage system. The funding pattern of the programme was 90:10 till October 2013, thereafter 70:30 between the Central and State.

## (ii) Command Area Development & Water Management

This is a Centrally sponsored scheme with 50:50 (Centre:State) funding pattern and the objective of the programme is to bridge the gap between irrigation potential created and potential utilised.

## (iii) Minor Irrigation

The programme was to be funded on a matching basis by the Central and the State Government. Special Category States including Nagaland are eligible for 90 per cent of funds as central assistance and the remaining 10 per cent of the funds have to be borne by the State Government. The grant component amounting to 90 per cent of the total grant sanctioned will be released immediately and balance 10 per cent will be released when 70 per cent expenditure is incurred. The grant component along with the State share must be released to the project authorities by the State Government within 15 days of its release by the GoI.

A total of 548 schemes (*Minor Surface Irrigation Schemes*) were sanctioned during the period 2009-14 under AIBP with the aim of creating 29,847 hectares of Irrigation Potential (IP) at an estimated cost of ₹ 361.75 crore.

### 2.4.1.3 Organisational structure

In Nagaland, AIBP is implemented by the Irrigation & Flood Control Department (I&FCD) through 11 I&FC Divisions each headed by an Executive Engineer (EE). The EEs work under the supervision of two Superintending Engineers who in turn, report to the Additional Chief Engineer and the Chief Engineer (CE) at the Directorate office at Kohima. The overall administrative control of the Department vests with the Principal Secretary, I&FCD at the Government level.

## 2.4.2 Scope of Audit

Performance audit of AIBP was carried out during April 2014 to July 2014 covering the period 2009 to 2014. Out of 11 districts in the State, four<sup>21</sup> districts were selected for test-check. Sampling was done under the following three strata:

**Stratum-I:** Capital District (Kohima).

**Stratum-II:** Three districts (Dimapur, Wokha & Tuensang) of Western, Northern and Eastern regions comprising one district from plain and two districts from hill areas have been selected using statistical sampling method of PPSWR (Probability Proportional to Size With Replacement).

**Stratum-III:** In all 55<sup>22</sup> minor irrigation projects (Kohima: 17, Dimapur: 20, Wokha: 11 and Tuensang: 7) were selected by SRSWOR (Simple Random Sampling Without Replacement). Information and data was collected from the CE (I&FC), EEs, Directorates of Agriculture, Soil & Water Conservation and Economics & Statistics of the State.

<sup>21</sup> Kohima, Dimapur, Wokha & Tuensang

<sup>22</sup> Comprising of 36 Cluster of MI projects and 19 individual MI projects



### **2.4.3 Audit Objectives**

The objectives of the performance audit were to ascertain whether:

- Projects were undertaken after detailed survey and the sanctioned projects met the programme criteria; the need for the projects and their technical viability was examined properly;
- Adequate funds were released on time and whether these have been utilised properly;
- The projects were implemented within the time schedule and within the approved costs and were executed in an economic, efficient and effective manner and provided assurance on quality. The programme created the planned infrastructure and the projects were functional;
- Implementation of Participatory Irrigation Management (PIM) achieved its objective of community participation in planning and execution of projects. PIM created a sense of ownership of assets among the users;
- Implementation of AIBP projects was properly monitored;
- AIBP led to augmentation of irrigation potential and utilisation in the State and had a substantial impact on growth of agriculture.

### **2.4.4 Audit Criteria**

The audit criteria used for performance audit of AIBP were derived from the following sources:

- Guidelines of GoI on AIBP;
- Detailed Project Reports (DPRs) of the selected MI projects;
- Other circulars/instructions issued by MoWR and CWC/State Government;
- Guidelines issued by CWC for preparation of DPRs;
- District Development Programme;
- Quarterly Progress Reports;
- Agriculture Production Reports;
- Guidelines for monitoring and evaluation; and
- Nagaland PWD Code.

### **2.4.5 Audit Methodology**

Before commencing the audit, the audit objectives, criteria and scope were discussed (April 2014) with the Principal Secretary to the Government of Nagaland and Chief Engineer, I&FCD in an entry conference.

Audit conclusions were drawn after scrutiny of relevant records of the Directorate and Divisions<sup>23</sup> for the period 2009-14, analysis of the available data, replies to the audit queries along with physical verification of the projects.

The audit findings were discussed (September 2014) with the Principal Secretary of the Department in an Exit Conference and the replies of the Department have been incorporated in the Report at appropriate places.

#### **2.4.6 Acknowledgement**

We acknowledge the cooperation and assistance extended by the I&FCD, Agriculture, Soil & Water Conservation and Economics & Statistics Departments, Government of Nagaland during the conduct of the Performance Audit.

#### ***Objective 1: Detailed survey, need for the projects and their technical viability***

#### **2.4.7 Planning**

##### **2.4.7.1 Irregularities in selection and approval of projects**

The Irrigation & Flood Control (I&FC) Department does not have any village-level data on the existing projects or on the irrigation coverage of villages on the basis of which it can decide on priority of the projects proposed. The State Technical Advisory Committee (STAC) formed in March 2011 is required to examine the proposed MI projects under AIBP for techno-economic clearance and fair distribution of uncovered potential areas of the State. However, selection of projects was on the basis of the applications furnished by the beneficiaries and not on the basis of the irrigation potential (*ie* availability of water source, CCA etc.). Priority was determined based on pressure exerted by the VIPs/MLAs. As such, the STAC could not independently discharge its assigned duty with the delegated authority.

AIBP envisaged that minor irrigation projects would be funded, provided that the proposed projects meet the pre-conditions *viz.*, individual schemes should benefit irrigation potential of at least 20 hectares and group of schemes (within a radius of 5 km.) should benefit irrigation potential of at least 50 hectares.

Examination of records revealed that out of 55 projects verified in audit, one standalone project covered less than 20 hectares and seven cluster projects covered 50 hectares in each project as detailed in **Appendix-2.4.1**. The schemes were however, approved despite deviation from the norms.

The Department replied (September 2014) that all the schemes selected under AIBP comply with AIBP guidelines of 20 & 50 hectares for the period up to 2012-13 and 10 & 20 Hectares from 2013-14 onwards for Stand Alone and Cluster projects respectively (as per revised guidelines of MoWR of AIBP).

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<sup>23</sup> Executive Engineers Kohima, Dimapur, Wokha and Tuensang

The reply was not acceptable as audit verification clearly revealed shortfall of two hectares in standalone project and 2 to 35 hectares in respect of Cluster projects.

#### **2.4.7.2 Non-coordination with Agriculture and allied Departments**

Implementation of irrigation projects, with the objective of creating sufficient Irrigation Potential to provide Sustainable Agriculture for increased food production and economic viability of the farming community, involves integrated activities of the Agriculture, Soil & Water Conservation, Horticulture and Land Resources Departments for holistic approach towards agricultural development. To ensure this, coordination of the Departments is essential. For this, formation of a co-ordination committee would be effective for inter-departmental dissemination of information.

However, it was seen that no integrated activities were undertaken in coordination with the allied departments for implementation of the irrigation projects (September 2014). Due to non-coordination with the Agriculture & allied departments in implementation of the projects, no multi-cropping was carried out in the CCA of any selected project. Some of the completed projects were lying abandoned as the land for cultivation had not been developed.

The Department accepted (September 2014) the fact.

#### **2.4.7.3 Preliminary survey not done**

As per the norms, after receipt of applications from the beneficiaries the divisions should conduct preliminary survey of the proposed project site. Thereafter, the preliminary survey reports along with the list of proposed projects are to be sent to the Directorate for selection of the projects. After the projects are selected by the Directorate, the division should conduct detailed survey for preparation of DPRs.

Divisional Engineers of the four<sup>24</sup> selected districts stated that they conducted one time survey before preparation of DPRs. From this, it was noticed that the Divisional offices did not conduct preliminary survey. However, Preliminary Survey Reports (PSRs) were found enclosed with the project proposals which were not based on actual survey. During spot verification the discrepancies between the information in the PSR and the actual position were noticed (***Appendix-2.4.2 A & B***). The selection of the projects without conducting preliminary survey resulted in construction of (a) 14 projects without having water source: paragraph 2.4.7.6 (i) & (ii), (b) 8 projects without having CCA: paragraph 2.4.7.7 (i) to (iv) and (c) one project constructed in landslide risk area : paragraph 2.4.7.5 (i).

The Department stated (September 2014) that for projects that are on priority list, detailed surveys were directly carried out instead of preliminary survey and this survey is treated as final.

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<sup>24</sup> Kohima, Dimapur, Tuensang and Wokha

#### 2.4.7.4 Preparation of DPRs without proper survey

Conduct of survey involves survey of catchment area and calculation of water discharge of the stream/river, main project site where the head work is to be constructed, channel lines, environment, ecological condition and soil condition of the project site, CCA, crops cultivated in the CCA and meeting with the beneficiaries.

Two<sup>25</sup> selected Divisions stated that even though they conducted survey they did not keep record of the survey. Hence, they could not give details, such as, when and who conducted the survey or any record to prove that actual spot survey was conducted. The other two<sup>26</sup> Divisions furnished records relating to conduct of spot survey of the projects.

As per the records, an official conducted survey of 4 to 12 projects at different locations on a single day even though it was practically impossible. This implies that the projects were selected without conducting proper feasibility survey and work order was issued without knowing the ground realities of the project site and the details of works actually required for the projects.

The Department stated (September 2014) that preliminary survey is carried out to assess the approximate information of the project viz existing CA, additional CCA that can be brought under irrigation, irrigation source and volume of stream/river flow, farmers to be benefited, cropping pattern, catchment area, type of head work required, channel length, etc. Since the CCA of cluster projects are usually of few hectares only and all the projects are located within close proximity, several project sites can be visited and preliminary survey assessment made on the same day.

The reply was not acceptable as it was not practically possible to carry out survey of 4 to 12 projects located in hilly areas on a single day as the project sites were not accessible by vehicle.

Further, during spot verification it was noticed that actual executed components of 24 projects were not as per the components specified in the DPRs (*Appendix-2.4.3*). Hence, it was evident that the DPRs were not prepared on the basis of the actual survey and ground reality of the project site.

The Department replied (September 2014) that the time gap between preparation of DPR and actual execution of work may vary from one year to several years depending on various factors in getting the project approval and sanction. There is often change in the river course and changing of head work site and design specification becomes necessary as per site conditions. The land use and land development that have taken place also necessitate changes in channel requirement (lined/unlined channel, cross drains, aqueducts etc). Hence, a working estimate is prepared as per actual ground condition at the time of starting construction of the project which may deviate from the design and specification of the original DPR.

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<sup>25</sup> Wokha and Tuensang

<sup>26</sup> Kohima and Dimapur

The reply was not acceptable as the working estimates for each individual project stated to be drawn up were neither furnished during the course of audit nor enclosed with the replies furnished to audit.

Significant deficiencies which were attributable to poor planning are discussed in the succeeding paragraphs:

#### **2.4.7.5 Abandonment of projects**

##### **(i) Krazhol MI Project**

Krazhol MI project (Phase-I & II) at a cost of ₹ 2.55 crore was implemented during 2007-08 to 2010-11. In the DPR it was mentioned that '*due to time factor, proper survey for implementation of the project could not be done*'. After 9 months of the date of completion (September 2011), a landslide occurred (July 2012) at downstream portion near the head work of the project and completely inundated the project area and the head work structures were completely covered with siltation. The project was abandoned and the chance of reviving the same was remote.

A joint spot verification of the project was conducted on 28.6.2014 and it was found that the project was in an abandoned state. Photographs taken after completion and on the day of verification of the project are shown below:

##### **Photograph No.2.4.1**



After completion of the project (September 2011)



As found during verification (June 2014)

Thus, it is evident that the Department took up the project without conducting proper survey of the project area and also did not consider factors like environmental, ecological, landscape, soil condition and risk of landslide. As a result, the project constructed for ₹ 2.55 crore was washed away which resulted in infructuous expenditure to that extent.

The Department accepted (September 2014) the fact.

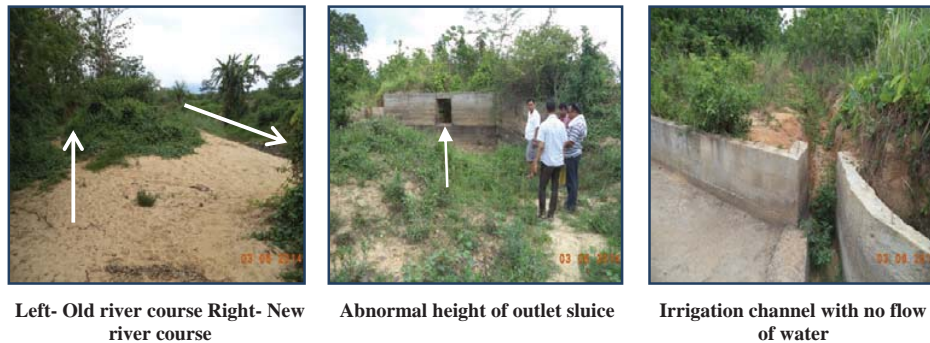
##### **(ii) Upper Amaluma (Phase-2)**

The work "Upper Amaluma MI Project (Phase-2)" at a Project cost of ₹ 0.33 crore which commenced on 9.12.2011 was completed on 22.2.2013. However, the project was handed over to the beneficiaries on 15.2.2012 (i.e. one year before the date of completion). The Department certified that the project was successfully completed as on 15.2.2012. Thus, the MoU furnished to audit cannot be relied upon.

During spot verification (June 2014), it was noticed that the project was abandoned due to change of river course (August 2013). The Upper Amaluma project was constructed in plain area of Dimapur where the water current is steady. The technical experts who proposed the project after conducting detailed survey of the Amaluma River by taking various aspects such as environmental, ecological, soil condition and water discharge capacity could have foreseen the probability of change in the river course. Abandonment of the project just after 5 months from the date of completion due to changing of the river course shows that the project was implemented without proper survey.

The Department could have revived the project by taking initiative to re-establish the original course of the river as Dimapur was a plain area. This indicates non-seriousness of the Irrigation Department to fulfill the objective of AIBP and uplift the economic condition of the rural farmers by providing irrigation facilities.

**Photograph No.2.4.2**



The Department stated (September 2014) that initiative for restoration of the original river course to utilise the irrigation facility of the project had been taken.

#### **2.4.7.6 Projects without water source**

##### **(i) 13 projects in Dimapur and Wokha districts:**

In the DPRs of the following 13 projects (located in Dimapur and Wokha) names of the stream/river were mentioned as water sources with details of minimum and maximum water discharge. However, during spot verification (June 2014), it was noticed that the projects were not connected with any stream/river (as stated in DPR). The details of the water source position found during verification are indicated in column 11 of the following table:

**Table 2.4.7.1**

District	Sl. No.	Name of the project	Name of the Cluster project	Name of the water source	Water discharge capacity (cusecs) during			CCA (Ha)	Project cost (₹ in lakh)	Remarks of the verification team on water source
					Monsoon	Lean	Maximum			
1	2	3	4	5	6	7	8	9	10	11
DIMAPUR	1.	Dadi (Rengmapani)	Dadi	Loru river	3.00	0.25	3.50	5.00	8.56	A rain-fed water pond without having connection to the Loru river was found.
	2.	Juma (Medziphema)	Pator Nallah	Juma river	2.16	0.18	2.30	4.00	6.51	The departmental officers could not show to Audit the existence of any stream/pond as water source.
	3.	Nitozu (Nitozu)	Pator Nallah	Balu Nallah	2.25	0.25	3.00	3.00	5.25	A dried low land area without having connection to Balu Nallah was found.
	4.	Pagla River (Ganeshnagar)	Nozoperu	Pagla river	1.00	0.21	3.50	4.00	4.77	A dry low land without connection with the Pagla river was found.
WOKHA	5.	Yanglien (Caikitong)	Yanglien	Yanglien stream	1.05	0.86	1.3	4.00	7.57	A rain water harvesting pond without connecting to the stream/river (water source) was constructed.
	6.	Tizaphen (Riphyim Old)	Mokoktongchu	Tezaphen	0.16	0.04	0.21	3.00	12.46	-do-
	7.	WHP (Tsongiki)	Alunti	Yankey	0.16	0.02	0.18	8.00	7.76	-do-
	8.	Choshuchu (Changshu New)	Alunti	Choshuchu	0.11	0.05	0.12	8.00	9.02	-do-
	9.	Tchuhanyak Area (Yikhum)	Alunti	Tchuhanyak	0.15	0.13	0.16	9.00	11.12	-do-
	10.	Temeshong (Wokha village)	Menchu	Nitsichu	0.11	0.05	0.12	2.00	7.56	-do-
	11.	Lumkhumchung (Wokha village)	Menchu	Lumkhumchung	0.10	0.07	0.11	8.00	20.16	-do-
	12.	Chentanchu (Elumyo)	Menchu	Chentanchu	0.18	0.07	0.21	2.00	9.46	-do-
	13.	Arumotchu (Wokha New)	Menchu	Arumotchu	0.13	0.09	0.15	2.00	11.94	-do-
<b>TOTAL:</b>								<b>62.00</b>	<b>122.14</b>	

(Source: Spot verification reports and DPRs)

Thus, the information furnished in the DPRs was not based on the actual ground condition of the project site. Irrigation projects established without having water source would never be able to achieve its targeted objective.

The Department stated (September 2014) that water sources of the 13 projects were rivers and nallahs. In Nagaland, rivers and nallahs are not snow fed. Hence, they dry up during lean season of April and May and extend up to June during late monsoon. However, with onset of monsoon, the runoffs from the natural drainage are diverted to the fields to meet irrigation requirement of crops.

The fact however, remained that none of the above projects were connected with any river, nallah or any water source.

**(ii) Ciethucha MI Project (Kohima district)**

Construction of Ciethucha (Left and Right) MI project at a cost of ₹ 0.48 crore with Thesa stream as water source with water discharge capacity ranging from 0.30 cusecs to 2.20 cusecs was completed on 15.3.2012.

During spot verification (27.5.2014) it was noticed that a water reservoir tank was constructed at the project site. However, there was no connection between the Thesa stream (water source) and the water reservoir tank. It was also noticed that the level of the source stream was far below the tank and the CCA. Paddy cultivation activity had started but there was no water in the reservoir tank for supply to the fields. Thus, the reservoir tank was only a rain-water harvesting pond and not an irrigation source which was capable of supplying water to 69 Ha during cultivation season.

**Photograph No.2.4.3**



**Right Water harvesting pond  
harvesting pond**

**Left Water**

It is evident that the projects at (i) and (ii) were implemented without proper survey and determination of the water source of adequate capacity- a basic requirement. Thus, a consolidated expenditure of ₹ 1.70 crore (₹ 1.22 + ₹ 0.48 crore) incurred on the 14 projects without water source and the purpose of irrigating 131 Ha (62 Ha+69 Ha) of CCA could not be achieved.

The Department stated (September 2014) that the project was for construction of water reservoir tank for rain water harvesting from Thesa catchment area during monsoon. The reservoir serves the purpose of irrigation as well as recharging of ground water to increase stream flow in the lower reaches of Thesa area which has large area under terrace farming.

The reply was not acceptable as it was clearly mentioned in the DPR that the water source of the project will be Thesa river, wherein the water flow volume was also calculated.

**2.4.7.7 Projects without Culturable Command Area**

Culturable Command Area (CCA) is the area which can be irrigated from a scheme and is fit for cultivation. Out of 55 MI projects selected for test check in the four districts, eight<sup>27</sup> projects (15 per cent) were implemented without any CCA. The major cases are highlighted below:

**(i) Tsuwhezha MI Project, Tseipama (Dimapur) 2010-11**

Tsuwhezha MI Project was implemented at a cost of ₹ 1.30 crore with an objective to irrigate existing 100 hectares of paddy cultivation and to create additional 20 Ha of CCA. The project commenced on 10.9.2010 and was completed on 14.10.2011.

<sup>27</sup> One in Dimapur, 2 in Tuensang and 5 in Wokha



During spot verification (June 2014) it was noticed that the project was in an abandoned state with no agricultural activity in the proposed CCA. The Divisional Engineer stated that the CCA would be developed into cultivable field in due course. The statement of the Engineer amounts to wishful thinking as it could not be ascertained when and who will develop the proposed CCA.

Thus, the project was approved and implemented on the basis of the data provided in the DPR which was not based on actual survey of the project site.

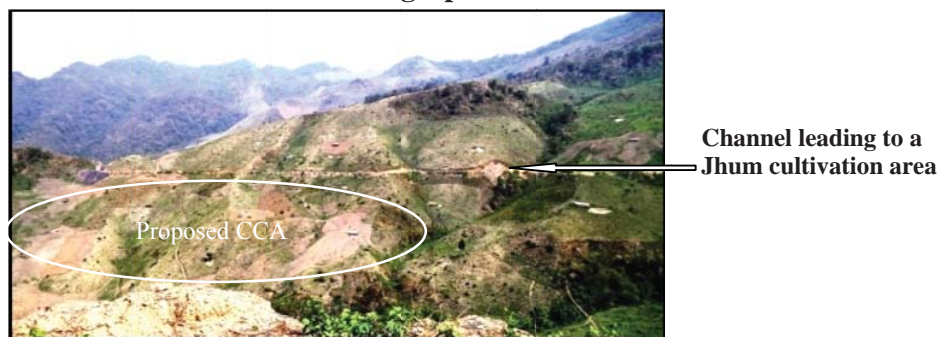
**(ii) Shopong MI Project, Yali/Yangli villages (Tuensang)-2012-13**

As per records of the DPR of the project, the farmers had already developed 33.50 hectares of CCA and the project after completion would enhance an additional 47 hectares thus aggregating to 80.50 hectares. The project commenced on 9.12.2011 and was completed on 8.5.2012 at a cost of ₹ 1.15 crore.

During spot verification (24.4.2014) it was noticed that no cultivable wet field were developed or any agricultural activities was undertaken in the proposed CCA. The Divisional Engineer stated that the CCA would be developed into cultivable field in due course. The statement of the Engineer was not acceptable as it was in contravention to the information provided in the DPR. Moreover, the Department had not fixed any time frame for development of the CCA and had also not identified the agency to develop the area.

Thus, the project constructed at a cost of ₹ 1.15 crore remained abandoned due to selection of site in unviable area. Hence, the intended benefits from the project were not obtained.

**Photograph No.2.4.4**



**(iii) Nangpung MI Project, Nakshu village (Tuensang)-2009-11**

As per the DPR of the project, the farmers had already developed 2.50 hectares of CCA and after completion of the project the CCA will be enhanced to 51 hectares. The project commenced on 9.9.2010 and was completed on 26.3.2011 at a project cost of ₹ 0.62 crore. However, during spot verification (26.4.2014) it was noticed that the project was executed at a site where there was no CCA at all.

Thus, the entire expenditure of ₹ 0.62 crore was infructuous.

**(iv) Five projects under Wokha division:**

In Wokha district the following 5 projects costing ₹ 0.57 crore were implemented to create 52 Ha of CCA. However, during spot verification (May 2014) the projects were found without having CCA, as detailed below:

**Table 2.4.7.2**

Sl. No.	Name of the Project	Project cost (₹ in lakh)	Location	Year	CCA as per DPR (Ha)		Actual CCA found (Ha)
					Pre	Post	
1.	Serikatchu MI Project	11.01	Riphyim Old	2010-11	4	8	NIL
2.	Mokoktongchu MI Project	17.94	Riphyim Old	2010-11	0	18	NIL
3.	WHP MI Project	7.77	Tsungiki village	2010-11	0	8	NIL
4.	Phunghangthu MI Project	8.87	Changsu New	2010-11	0	8	NIL
5.	Lakhutichu MI Project	10.92	Changshu Old	2010-11	0	10	NIL
<b>Total:</b>		<b>56.51</b>			<b>4</b>	<b>52</b>	

(Source: Spot verification reports and DPRs)

Hence, construction of eight projects in three districts (Dimapur, Tuensang and Wokha), without CCA was a total failure. Thus, a consolidated expenditure of ₹ 2.64 crore was incurred without bearing any fruitful result.

The Department accepted (September 2014) the fact that in some cases, the farmers were slow in land development of the command area and there was considerable delay in utilising the irrigation facility or the potential created was not fully utilised. However, non-development of CCA was not to be construed that projects were without CCA. The MI Projects were not abandoned as they are now under development by the concerned farmers and will eventually achieve the target.

### ***Audit objective 2: Release and utilisation of funds***

## **2.4.8 Financial management**

### **2.4.8.1 Release of funds**

The position of funds released by the GOI and the State Government and expenditure incurred by I&FC Department on the implementation of irrigation schemes under AIBP is detailed in the following table:

**Table- 2.4.8.1**

(₹ in crore)

Year	OB	Allocation			Release			Short release		Total funds available (Co.2+8)	Expenditure	Closing Balance
		Central	State	Total	Central	State	Total	Central (Col.3-6)	State (Col.4-7)			
1	2	3	4	5	6	7	8	9	10	11	12	13
2009-10	21.39	0.00	0.00	0.00	58.77	5.40	64.17 <sup>28</sup>	0.00	0.00	85.56	85.56	0.00
2010-11	0.00	97.20	10.80	108.00	86.73	15.37	102.09 <sup>29</sup>			102.09	102.09	0.00
2011-12	0.00	45.46	5.05	50.51	54.65	0.78	55.43 <sup>30</sup>	-9.20	4.27	55.43	55.43	0.00
2012-13	0.00	82.10	9.12	91.22	82.44	8.07	90.51 <sup>31</sup>	-0.34	1.05	90.51	90.51	0.00
2013-14	0.00	100.82	11.20	112.02	75.07	8.55	83.63 <sup>32</sup>	24.40	2.50	83.63	53.31	30.32 <sup>33</sup>
<b>Total</b>		<b>325.58</b>	<b>36.17</b>	<b>361.75</b>	<b>357.66</b>	<b>38.17</b>	<b>395.83</b>	<b>14.86</b>	<b>7.82</b>	<b>417.22</b>	<b>386.90</b>	

(Source: Departmental figure)

Against the total allocation of ₹ 361.75 crore under AIBP during the period 2009-14, the I&FCD received ₹ 299.57 crore (₹ 395.83 crore - ₹ 96.26<sup>34</sup> crore). Thus, there was short release of ₹ 62.18 crore (Central: ₹ 50.41 crore and State: ₹ 11.77 crore).

#### 2.4.8.2 Parking of funds in Civil Deposit

Rule 290 of Central Treasury Rules, which is being followed by the State Government, restricts the drawal of money from the treasury unless it is required for immediate disbursement.

Examination of records revealed that during 2010-11 and 2012-13, the Department drew funds at the end of the financial year and kept in 'Civil Deposit' ranging between 48 and 252 days in contravention to the above provision. However, the Utilisation Certificates furnished by the Department included the amount kept in Civil Deposit as expenditure in order to obtain further AIBP funds from the Central Government as detailed below:

**Table 2.4.8.2**

(₹ in crore)

Year	Group of projects	Amount in CD	Date on which kept	Amount withdrawn	Date of withdrawal	No. of days kept in CD
2010-11	177	7.78	31.3.11	7.78	5.8.11	127
2011-12	96	25.00	24.3.12	10.00	24.7.12	120
				15.00	19.10.12	207
		5.05	31.3.12	5.05	24.7.12	115
2012-13	120	25.83	29.11.12	12.92	16.1.13	48
				12.91	25.3.13	116
		23.00	25.3.13	14.05	22.7.13	118
				7.03	18.9.13	176
				1.92	3.12.13	252
5.11	30.3.13	5.11	3.12.13	248		
2013-14	120	5.11	31.3.14			122 (upto 31.7.14)
	155	25.21	25.3.14			129 (upto 31.7.14)

(Source: Departmental figure)

<sup>28</sup> Release of ₹ 64.17 crore during 2009-10 pertains to 2007-08: (₹ 4.40 crore) and 2008-09 (₹ 59.77 crore)

<sup>29</sup> Release of ₹ 102.09 crore during 2010-11 includes ₹ 32.09 crore pertaining to allocation of 2007-08 (₹ 0.44 crore) and 2008-09 (₹ 31.65 crore)

<sup>30</sup> Release of ₹ 55.43 crore during 2011-12 includes ₹ 34.98 crore pertaining to 2010-11

<sup>31</sup> Release of ₹ 90.51 crore during 2012-13 includes ₹ 33.07 crore (2010-11: ₹ 3.02 crore and 2011-12: ₹ 30.05 crore)

<sup>32</sup> Release of ₹ 83.63 crore during 2013-14 includes ₹ 28.11 crore pertaining to 2012-13

<sup>33</sup> The closing balance of ₹ 30.32 crore during 2013-14 is lying in Civil Deposit.

<sup>34</sup> ₹ 4.84 crore for 2007-08 and ₹ 91.42 crore for 2008-09

### 2.4.8.3 Delay in release of funds

AIBP guidelines envisage that the grant component released by the GOI along with the State share must be released to the project authorities within 15 days of its release. However, the State Government delayed in release of the Central grants along with its share ranging from 10 days to 334 days during the period 2009-14 as shown in the following table.

**Table 2.4.8.3**

Name of the Programme	Year	Amount released by GoI (₹ in lakh)	Date of release	Date of release by Finance Department	Delay in No. of days
Accelerated Irrigation Benefit Programme (AIBP)	2009-10	20.94	31.03.2010	12.09.2010	150
		188.52	01.02.2010	26.03.2010	34
		551.90	31.03.2010	12.09.2010	150
		4967.24	01.02.2010	26.03.2010	11
	2010-11	2447.67	01.09.2011	16.11.2011	62
		271.97	07.03.2012	31.03.2012	10
		6300.00	05.01.2011	11.03.2011	51
	2011-12	4091.05	24.11.2011	23.03.2012	106
		454.56	24.11.2011	31.03.2012	114
	2012-13	3100.00	09.05.2012	28.11.2012	189
2013-14	5040.96	22.11.2013	31.01.2014	56	
Command Area Development and Water Management Programme (CADWMP)	2011-12	15.00	02.02.2012	24.03.2012	42
Flood Management Programme (FMP)	2009-10	127.28	31.03.2010	30.11.2011	230
		85.68	31.03.2010	21.12.2011	251
	2011-12	2.78	30.03.2012	12.02.2013	305
	2010-11	153.02	31.03.2011	19.02.2012	311
	2012-13	1544.91	30.03.2012	13.03.2013	334

(Source: Release/sanction orders)

### 2.4.8.4 Control over utilisation of funds

Payments against a project should be made on the actual execution of the work and information on utilisation of funds should be based on the actual physical achievement of the project and expenditure incurred thereon.

Instances of full payment against actual execution of 20 per cent of work, payment on fictitious measurement and submission of UC against non-executed projects were noticed as discussed in *Paragraphs 2.4.9.2; 2.4.9.5(i) and 2.4.9.5(ii) and 2.4.9.3.*

There was also inflated reporting of expenditure by including the amount kept in Civil Deposit as expenditure during 2010-11 and 2012-13 as detailed in the following table:

**Table 2.4.8.4**

(₹ in crore)

<b>Project batch and year</b>	<b>Amount released (Central and State)</b>	<b>Amount utilised as per UC</b>	<b>Actual expenditure as on the date of issuing UC</b>	<b>Amount kept in CD</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
177 of 2010-11	7.78	7.78	0.00	7.78
96 of 2011-12	45.46	45.46	20.46	25.00
96 of 2011-12	5.05	5.05	0.00	5.05
120 of 2012-13	34.44	34.44	8.61	25.83
120 of 2012-13	51.10	51.10	23.00	28.10

*(Source: Utilisation Certificates and Departmental figure)*

Para 7 of the AIBP guidelines envisaged that the State Government was required to submit audited statements of expenditure (SoE) incurred on the AIBP component of the project within nine months of the completion of the financial year. The release of Central Assistance of the following years will not be considered if audited statement of expenditure is not furnished within nine months of release of central assistance. There was no system of submission of SoE in the State for the AIBP schemes. This is a risk area since there is no assurance on the actual expenditure. However, non-submission of audited statement of expenditures did not deter the GOI from releasing funds under AIBP each year.

The Department stated (September 2014) that preparation of Audited Statement for AIBP projects was introduced in the “Revised Guidelines of AIBP” issued by MoWR during November 2013. But the fact remained that this was mandatory as per AIBP guidelines issued in December 2006.

### ***Audit objective 3: Implementation of projects***

#### **2.4.9 Execution of schemes**

##### **(i) Flood Management**

During the period from 2009-14, the I&FCD executed 11 FMP projects (Dimapur: 5, Mon: 2, Mokokchung: 2, Wokha: 1 and Peren: 1) at a total estimated cost of ₹ 49.37 crore. All the 11 projects were completed. The details are shown below:

Table 2.4.9.1

(*₹in lakh*)

Sl No	Name of the scheme	District	Estimated cost	Expenditure
1	Nag-1 (Protection of Tuli from Erosion of Milak River)	Mokokchung	354.00	353.80
2	Nag-2 (Protection of Hakhishe & Yeveto villages from Erosion of Dzuza River)	Dimapur	166.00	165.55
3	Nag-3 (Protection of Mhainamsti and New Jalukie from Erosion of Nkwaren River)	Peren	238.00	237.77
4	Nag-4 (Protection of Tizit town from erosion of Tizit River)	Mon	258.00	257.79
5	Nag-5 (Protection of Upper Naginimora town from erosion of Dikhu River)	Mon	373.90	373.89
6	Nag-6 (Protection of Baghty town from erosion of Baghty River)	Wokha	582.10	580.16
7	Nag-7 (Anti Erosion work on Dhansiri river at Lower Purana Bazar & Burma camp-North Block , Dimapur)	Dimapur	748.00	748.00
8	Nag-8 (Anti Erosion work on Chathe river at Upper Seithekema, Dimapur)	Dimapur	712.30	712.28
9	Nag-9(Anti Erosion work of Tsuong river at Changki valley, Mokokchung)	Mokokchung	376.60	376.55
10	Nag-10 (Protection of Dimapur-Kukidolong-Peren road from erosion of Ruzaphema nallah at Ruzephema, Dimapur)	Dimapur	645.50	645.44
11	Nag-11(River training work along Dzumha river at Jharnapani-Kukidolong, Dimapur)	Dimapur	482.60	482.59
<b>Total</b>			<b>4937.00</b>	<b>4933.82</b>

*(Source: Departmental figure)*

Four projects (Sl. No.7, 8, 10 and 11) out of five implemented in Dimapur district were selected for detailed check. During spot verification (May 2014) it was noticed that two projects in Dimapur (Sl. No.7 and 8) located in the plain area were found to be in good condition. The other two projects (Sl. No.10 and 11) executed in the foothill areas were partially damaged due to natural cause (strong water current).

#### **(ii) Minor Irrigation**

A total of 548 projects (Surface Water Minor Irrigation Schemes) were sanctioned during the period 2009-14 to create 29,847 hectares of irrigation potential (IP) at an estimated cost of ₹ 361.75 crore. Out of 548 schemes, 393 representing 72 per cent of the projects were completed as of March 2014 while the work on 155 projects was ongoing. The projects were sanctioned for completion within the biennium. The Department executes the works through the group of beneficiaries of respective project, by issue of work orders.

The year-wise position of projects sanctioned and other details are given in the following table:

**Table- 2.4.9.2**

Year	No. of projects sanctioned	Project cost (₹ in crore)	Irrigation potential (Ha)	No. of projects completed	No. of ongoing projects
2009-10	177	108.00	9891	177	0
2010-11					
2011-12	96	50.51	4792	96	0
2012-13	120	91.22	6329	120	0
2013-14	155	112.02	8835	0	155
<b>Total</b>	<b>548</b>	<b>361.75</b>	<b>29847</b>	<b>393</b>	<b>155</b>

(Source: Departmental figure)

There were altogether 382 sub-projects in the 55 projects (19 standalone and 363 sub-projects in 36 cluster projects) selected for detailed check in four districts (**Appendix-2.4.4**). Out of this, Audit conducted joint physical verification of 18 standalone and 74 sub-projects within the 36 cluster projects.

#### **2.4.9.1 Expenditure on non/short executed items of works**

Regarding the execution of projects by the Irrigation Department, the quantity of the work executed is measured by a Section Officer and details of the work executed were entered in the Measurement Book (MB). The correctness of the measurements entered in the MB and execution of the works as per the specification in the DPR were certified by the responsible officers<sup>35</sup> and the bills passed for payment. However, during spot verification (May-June 2014) of 40 projects it was noticed that 6153.60 metres of lined channel (₹ 1.97 crore), 32 numbers of retaining walls (₹ 0.66 crore) and 15110 metres of earthen channel (₹ 0.46 crore) were not executed (**Appendix-2.4.5**). It was evident that the measurements recorded in the MBs were not as per the actual work executed at the project site but the same specifications in the DPRs were recorded in the MB. Position of the non/short execution of work is given below:

**Table 2.4.9.3**

Sl. No.	District	No. of projects where items of non/short execution were noticed	Amount involved (₹ in lakh)
1.	Kohima	6	26.33
2.	Dimapur	12	121.45
3.	Wokha	16	120.53
4.	Tuensang	6	78.11
<b>Total</b>		<b>40</b>	<b>346.42</b>

(Source: Spot verification reports and Detailed Project Reports)

The Department made payment of ₹ 3.46 crore on fictitious measurements. Thus, the quality of AIBP projects were compromised to the extent of ₹ 3.46 crore as there were items of non/short execution in 40 projects.

The Department accepted (September 2014) the facts but claimed that all the projects were implemented and functioning even though there were deviations in specification and components of work from the DPRs in the process of implementation.

<sup>35</sup> Sub-Divisional Officer; EE of the Division; the EE posted in Chief Engineer's office

#### 2.4.9.2 Release of full payment against incomplete and abandoned project

The Chief Engineer approved (December 2011) the Yaseliezie MI project with Theseru river as the water source at Tsiesema village, Kohima for ₹ 0.73 crore with a stipulation to complete within 12 months. The main objective of the project was to enable the farmers of the area to take up multi cropping by means of providing adequate irrigation to the existing 23 hectares of CCA. The objective also envisaged creation of additional CCA of 20 hectares.

Examination of records revealed that the Department paid ₹ 0.71 crore<sup>36</sup> (cost of civil work) to the contractor during March 2012 and March 2013. It was seen that the work commenced in December 2011 and was completed in November 2012.

However, during spot verification (June 2014) it was found that excepting formation cutting (approx. 2 km) for construction of lined channel (**Photograph 2.4.6**) no other work specified in the DPR was executed. The Chairman and the Secretary of the village council stated that the project could not be completed due to dispute among the beneficiaries. The matter was not brought to the notice of the Department officially. However, the village authority assured the audit team that they have settled the dispute and the construction work would be completed by February 2015. The Department was neither aware of the dispute nor had any knowledge about non-completion of the work.

**Photograph No.2.4.6**



**Formation cutting (approx. 2 km) for construction of lined channel**

From the above, it is evident that the Chief Engineer paid the entire project cost on the basis of fictitious measurements without verifying the actual execution of the work at site.

The Department stated (September 2014) that due to a major dispute between the Committee and beneficiaries the execution of the work was stopped. The Division had however recorded the project as completed since the full amount was drawn and released to the Division. However, the money for the portion of work not completed was retained by the Division and would be released as per progress when work is resumed for which the Village Council had given assurance to complete the project by February 2015.

<sup>36</sup> 1<sup>st</sup> RA- ₹ 24,50,700 (30.3.12- MB No.175 at page 49) and 2<sup>nd</sup> and Final bill: ₹ 46,19,500 (25.3.13- MB No.184 at page 49)



The statement regarding non-release of full amount to the beneficiaries was not acceptable as the beneficiaries had given a written statement that they had received the amount in full.

#### **2.4.9.3 Completion reported against unexecuted project**

Out of 120 projects planned for the year 2012-13, the Department took up 23 projects in Dimapur district which *inter alia* included project at Amiyighoki of Zutovi village. As per the approved DPR, the project cost of Amiyighoki of Zutovi village was ₹ 0.38 crore. The Department issued work order<sup>37</sup> in favour of the President, Amiyighoki (Lalong) Water User Association, Zutovi village. It was also seen that the Department had drawn the entire cost of the civil work amounting to ₹ 90.65 crore in four bills<sup>38</sup> against all the 120 projects.

During the course of audit (June 2014), the Divisional Engineer stated that the project at Amiyighoki of Zutovi village had not been taken up due to non-receipt of funds from the Head office.

Thus, it was evident that the project for ₹ 0.38 crore remained unexecuted. The objective of creating irrigation potential of 26 hectares also could not be fulfilled.

The Department stated (September 2014) that the bill for Amiyighoki Project of Zutovi village under Dimapur had not been drawn at the time of Audit as the work had not been started. Hence, the question of completion report does not arise.

The reply was not acceptable as the Department had already drawn the funds (November 2011-March 2014) and also furnished completion certificate. The matter therefore, requires investigation for action against the persons involved.

#### **2.4.9.4 Abandonment of projects due to non-maintenance/poor workmanship**

(i) The work for Construction of Churo MI Project at Chandalangshung village (Wokha district) at a total cost of ₹ 1.23 crore targeted to cover 100 hectares of irrigation potential commenced on 9.9.2010 and was completed on 19.7.2011.

During verification (May 2014) it was found that water was sufficiently available in the water source. However, due to poor workmanship there was seepage at the initial point of the channel. It was also seen that there were thick undergrowth of vegetation and siltation all along the channel line which interrupted the flow of water from the source to reach the CCA as shown in **Photograph 2.4.7**.

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<sup>37</sup> IFC/DD/Tech-II/2011-12 dated 8.12.2011

<sup>38</sup>

Bill No./date	Amount (₹ in crore)
204/29.11.12	34.44
304/25.3.13	45.99
312/30.3.13	5.11
321/31.3.14	5.11

Thus, the objective of irrigating 100 hectares of CCA could not be obtained even after incurring an expenditure of ₹ 1.23 crore.

**Photograph No.2.4.7**



Seepage and blockage of lined channel



Blocked channel due to siltation and growth of vegetation



Uncultivated fields without irrigation connectivity

The Department stated (September 2014) that irrigation channels are often affected by heavy siltation due to high silt load of the streams and rivers. Thus, the channels get deposited by heavy silt load by the end of the crop season. Maintenance of irrigation project and repair to damages of channels is carried out yearly by the beneficiaries before onset of the monsoon. The visit by Audit team to the project site was before carrying out annual maintenance work by the WUAs.

The reply was not acceptable as mono cultivation was taking place during monsoon season only which is contrary to the objectives of the projects specified in DPRs that multi cultivation would be taking place in order to uplift the economic condition of the farmers.

(ii) With an objective to create 218 hectares of irrigation potential, the MI Project at Old Ralan (Wokha district) was taken up at a cost of ₹ 3.12 crore which was completed in January 2013.

During joint spot verification (May 2014) it was found that the headworks, lined channel and hume pipe channel were constructed. Sufficient water was available at the water source. However, around 400 metres of hume pipe channel constructed in place of RCC lined channel was completely damaged due to poor workmanship. Substantial portion of the lined channel was also blocked due to landslide. The remaining portion of the channel was blocked due to thick growth of vegetation and siltation as shown in the Photograph below:

**Photograph No.2.4.8**



Broken hume pipe channel



Blocked sluice due to siltation



Thick undergrowth of vegetation

The connection between the water source and CCA was completely cut off due to the above factors. There was no visible agricultural activity in the CCA. Thus, the project remained defunct even after incurring an expenditure of ₹ 3.12 crore.

The Department while accepting (September 2014) the facts stated that the restoration of the damaged section of the aqueduct and repair/maintenance of the channel was being carried out.

(iii) Dzusharu MI Project under Khuzu Cluster at Phesama (Kohima district) with an objective to create 27 hectares of irrigation potential was completed in November 2012 at a project cost of ₹ 0.27 crore.

During verification (27.5.2014) it was found that the lined channel (about 500m) was completely damaged/washed away due to landslide and another portion (about 700m) was blocked due to land development for setting up of 2 stone crushing units. Due to this, the connection between the water source and CCA was completely cut off and the project remained non-functional and abandoned. The Department also did not take any steps to revive the defunct project.

Thus, due to laxity on the part of the Irrigation Department in particular and the beneficiaries in general, the AIBP project costing ₹ 0.27 crore could not yield any fruitful result.

**Photograph No.2.4.9**



Lined channel damaged by landslide and stone crushers



No water at water source

The Department in their reply accepted (September 2014) the fact and stated that the Department's instruction to restore the channel conveyance could not be effected due to the complex village politics, land holding rights, traditional water rights etc., which had hindered positive settlement of the issue. It was further stated that the beneficiaries of the project had given assurance that they would restore the project at their own cost.

#### **2.4.9.5 Discrepancy between records of measurement and actual execution**

Measurement of works executed should be recorded in the MB after measuring the quantum of work actually done at the work site. Payment should be made with reference to the quantity of work executed.

During spot verification of AIBP projects it was noticed that there were discrepancies between the records in the MB and actual execution at projects site. Payment of ₹ 1.05 crore was made on the basis of fictitious records of measurement as detailed below:

(i) The work “Construction of Chathe-I MI Project at Ruzaphema village” at a project cost of ₹ 1.50 crore was awarded to Shri Achalie vide work order No.IFC/DD/Tech-11/2012-13 dated 3.10.13 with the stipulation to complete the work within 12 months from the date of issue of the work order.

On scrutiny of records it was noticed that an amount of ₹ 0.35 crore<sup>39</sup> was released to the contractor (10.3.2014) being the part payment for construction of coffer dam (₹ 0.13 crore) and head works (₹ 0.71 crore). Measurements of the executed works were recorded in the MB<sup>40</sup>.

During spot verification (June 2014), it was found that coffer dam and headwork were not constructed. The SDO who accompanied the verification team stated that the head works will be constructed during lean period (i.e. October 2014 to February 2015) only.

**Photograph No.2.4.9**



Thus, the Chief Engineer made payment of ₹ 0.35 crore to the contractor on fictitious measurement.

The Department stated (September 2014) that the Division drew the first running bill for construction of the head work. However, since the head work could not be carried out as envisaged lined channel construction was taken up and a part of the amount drawn was paid for channel construction. The head work construction will be carried out after the monsoon. The deviation was necessitated due to circumstances and not to be construed as misuse of fund.

The reply was silent about the fictitious measurements recorded in the measurement book and payments released.

(ii) The work “Construction of Aoyung MI Project at Tuensang village” at a project cost of ₹ 2.99 crore was awarded to Shri Imlong Chang<sup>41</sup> with the stipulation to complete the work within 24 months from the date of issue of the work order.

During spot verification (25.4.2014) it was found that only formation cutting around 4.20 km was in progress. However, as per measurement book diversion weir (₹ 69.80 lakh) and lined channel (₹ 93.30 lakh) works were completed and the Chief

<sup>39</sup> Bill No.235 dated 6.2.14

<sup>40</sup> No.IFC/DD/AIBP-01

<sup>41</sup> No.IFC/TSG/AIBP-1/2008-09 dated 4.1.13

Engineer, I&FC released payment of ₹ 0.70 crore to the contractor (Bill No.235 dated 6.2.14).

**Photograph No.2.4.10**



**Formation cutting for lined channel**

The Department stated (September 2014) that the amount drawn was first running bill for construction of diversion weir and lined channel. However, construction of the head work could not be started in time as envisaged. The construction work would start from October 2014 after onset of dry season. Construction of lined channel work would also start on completion of earth work for channel cutting. The deviation was necessitated due to circumstances and not to be construed as misuse of funds.

The Department's reply was silent about the fictitious measurements recorded in the measurement book and payments released.

#### **2.4.9.6 Deviation from approved DPR**

The Zacho MI Project under Khuzu Cluster at Zakhama (Kohima district) with an objective to create 65 hectares of irrigation potential at a project cost of ₹ 0.11 crore commenced on 5.12.2011 and was completed in November 2012.

According to the DPR, the water source of the project would be from Mezerú river with minimum and maximum water discharge capacity of 2.0 cumecs and 3.5 cumecs respectively. The components of the project were-(i) Head work (check dam), (ii) earthen channel, (iii) cross drainage, (iv) protection/retaining wall and (v) aqueduct.

During spot verification (May 2014) the following were noticed-

- A very old and small irrigation channel was found as water source in place of Mezuru river,
- A retaining wall (10m) along the old irrigation channel was found instead of check dam,
- Lined channel in place of earthen channel was found,
- 45 meter long retaining wall was not constructed,
- Protection wall of 18 meter in length was not constructed,
- Aqueduct of 8 meter in length was not constructed.

The Divisional Engineer stated (May 2014) that the deviation on the components of the project was regularised through working estimate in which earthen channel was converted into CC lined channel. However, in support of the statement working estimate could not be furnished to audit.

Some photographs are shown below:

**Photograph No.2.4.11**



Existing ancestral channel as water source



Lined channel instead of earth channel

In the absence of water source (Mezerú river) and non-construction of required head works and other components, the Zacho MI projects could not be considered as a complete irrigation project. Rather, it was a conversion of an existing earthen channel into a CC channel. Thus, the Department failed to achieve the objective of creating 65 hectares of irrigation potential even after incurring an expenditure of ₹ 0.11 crore<sup>42</sup>.

The Department in their reply (September 2014) furnished a copy of the working estimate and stated that the changes of work from the original estimate were necessitated at the time of actual implementation and therefore a working estimate was prepared and work implemented accordingly. But the fact remained that water source for the project was not available.

#### ***Audit objective 4: Implementation of participatory Irrigation management***

#### **2.4.10 Participatory Irrigation Management**

Participatory Irrigation Management (PIM) was a step to address the management issues in irrigation sector. It was recognised that the quality of an irrigation service in terms of adequacy of water discharge, timeliness (that ensures that the water is available when the farmers need it), equity (by which tail-end of the channel receives as much water as the head-end), dependability and convenience in supply greatly affects the yield from irrigation commands. PIM seeks to decentralise water management, create Water Users' Associations (WUA) and turnover the operation and maintenance of downstream parts of the irrigation systems, distribution of water among users and collection of water rates from the users.

AIBP guidelines recommend that WUA should be formed for each scheme and that ownership of the schemes was to be rested with these groups who in turn would be

<sup>42</sup>1<sup>st</sup> RA dated 30.3.12: ` 3.72 lakh (MB-175/page 31), 2<sup>nd</sup>& Final bill dated 25.3.13: ` 7.32 (MB-184/page 89)

responsible for its day to day water management and maintenance along with minor repairs.

In Nagaland the WUAs were formed only to observe formality at the time of sending proposals and to facilitate issue of work orders and execution of Memorandum of Understanding (MoU). The roles and responsibilities of the WUAs were not clearly defined.

Water charges were not collected from the water users of the projects in the State. The completed projects were handed over to the WUAs with the responsibility to maintain the project. However, the farmers or the WUAs were not made aware about the importance of irrigation project and agriculture extension activities through mass meeting, hand bills, seminars and through the media. No training was imparted to enable the farmers to operate and maintain irrigation system and to have right mindset and technical expertise required for PIM. No funds were allocated for establishing WUAs. The WUAs were handed over the maintenance of irrigation system without any basic technical resources and sustainable source of funding.

During spot verification (April-June 2014) of the selected MI projects in four test checked districts the following defects mainly attributable to ineffective PIM system, were noticed:

**(i) Non-maintenance of projects**

Out of 92 projects verified in audit five projects were maintained and the remaining 87 projects were not maintained. Due to non-maintenance of line channels, CCA of some good projects could not be irrigated. Hence, there was no cultivation during lean season.

**(ii) Demoralisation of WUA by handing over of projects without water source and CCA**

It was also observed that the Department handed over 22 MI projects (14 MI projects and 8 CCA) to the farmers/WUAs without ascertaining the availability of water sources and the actual CCA. This adversely affected the successful implementation of the scheme as no benefit could be obtained from those projects.

**(iii) Non-utilisation of completed project**

Balijan MI project, Khoghovi village (Dimapur) at a project cost of ₹ 2.30 crore was completed on 28.9.2011 with an objective to create irrigation potential of 220 hectares and extend benefits to 95 households of 3 villages<sup>43</sup>. Balijan river was the water source of the project with water discharge capacity of 1.2 cum/sec in monsoon and 0.6 cum/sec in lean period. Availability of water in the water source was perennial.

During spot verification (3.6.2014) the components of the project (Bridge, 2 pump houses, 2 pumping sets, G.I pipes, water storage tank and CC lined channel) were in good condition. Water in the water source was also plentifully available. However,

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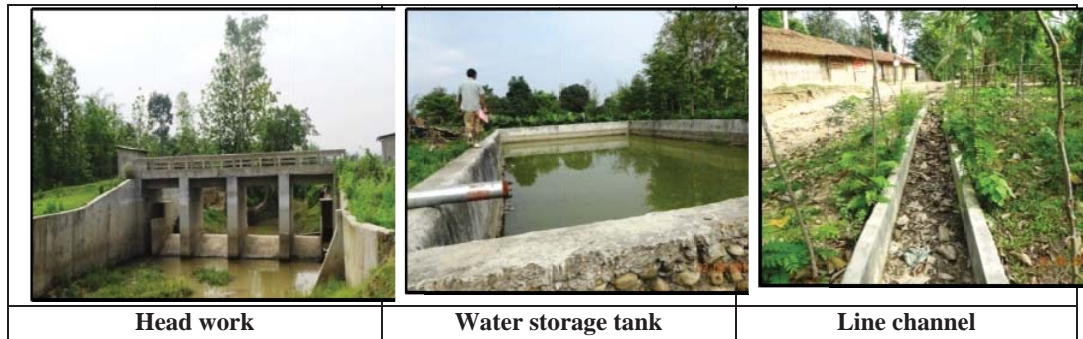
<sup>43</sup> Khoghovi, Lothavi and Henivi

the project which was completed on 28.9.2011 was not operationalised till the date of verification.

The Gaon Bura (GB) of Lothavi Village stated that since outlet points were not given in the CC channel, farmers could not utilise the irrigation project. The farmers resorted to one time paddy cultivation during the monsoon season when rainfall was plenty in the State and irrigation water was not required.

Thus, due to failure to achieve the objective of community participation in implementation of AIBP the project was left idle for the last three years even after incurring ₹ 2.30 crore.

**Photograph No.2.4.12**



**(iv) Non-execution of multi cropping pattern**

DPRs of the MI projects under AIBP were prepared with an objective to adopt multi cropping pattern such as cultivation of kharif crops (paddy and maize) and Rabi crops (potato, cabbage, beans) etc. However, during spot verification it was noticed that in almost all the projects mono cropping pattern (cultivation of paddy) was adopted. This showed lack of awareness on the part of the beneficiaries to derive maximum benefit of irrigation facility in cultivating their fields.

Many projects which were non-functional due to lack of water sources and CCAs were also handed over to the WUAs. The farmers were left on their own for utilisation of the projects without any support like monitoring, direction and cooperation from the Government machinery. Hence, they could not have the mindset of ownership of the assets.

The Department accepted (September 2014) the facts and stated that the Department would streamline the activities of the WUAs both in planning and implementation stages as well as operation and maintenance of M.I. Schemes implemented and handed over to them.

**Audit objective 4: Monitoring**

**2.4.11 Monitoring**

A State Monitoring Cell comprising six members under the chairmanship of the Additional Chief Engineer, I&FCD was constituted on 26 March 2011 to monitor MI schemes under AIBP. They were to physically verify at least 60 per cent of the total



projects and submit quarterly and annual monitoring reports to the Chief Engineer, I&FCD.

During 2011 to 2014 the Monitoring Cell verified 171 projects as detailed below:

**Table 2.4.11.1**

<b>Pertaining Year</b>	<b>Total No. of projects</b>	<b>Month/ year of visit</b>	<b>Number of projects verified</b>	<b>Percentage of verification</b>
2010-11	177	June 2011	110	62
2011-12	96	May 2012	41	43
2012-13	120	April and May 2013	20	17
	<b>393</b>		<b>171</b>	

*(Source: Information furnished by the Department)*

The Department could not achieve the mandate to verify 60 *per cent* of the total projects during 2011-12 and 2012-13. The Department also failed to furnish verification reports of the 151 projects visited during June 2011 (110 projects) and May 2012 (41 projects). In the absence of the verification reports, actual conduct of verification/monitoring could not be authenticated. Verification reports of 20 projects conducted during April and May 2013 were furnished. As per the report the projects were implemented according to the detailed specifications given in the DPRs. However, spot verification of three out of the 20 projects (verified by the State Monitoring Cell) revealed that one project (Shopong MI project) was found without CCA against the existing CCA of 34 Ha featured in the approved DPR and another project (Zacho MI project) was found with a roadside drain as water source instead of Mezeru River as water source as mentioned in the approved DPR. In view of the facts stated above it is evident that the Department did not carry out proper monitoring in implementation of the AIBP.

#### ***Audit objective 5: Impact assessment of AIBP***

#### **2.4.12 Impact of AIBP**

The objective of implementing irrigation projects under AIBP was to provide economic benefits to the beneficiaries through increase in agricultural production. There were targets of creating new CCA, increase in existing CCA, increase in yield per hectare, changing of mono cropping pattern to multi-cropping pattern etc. in implementation of a project. During the last five years, the Department implemented 548 projects for ₹ 361.75 crore with an aim to create 29,847 hectares of CCA. The Department reported 100 *per cent* achievement of the project implementation. Thus, 21,012 hectares was added in CCA. However, irrigation potential actually created and utilised was not assessed by the Department. After handing over of the projects to WUAs, the Department did not even check whether the projects were functioning or abandoned. The Department also did not have information on actual creation of CCA, gross irrigated area, cropping intensity etc. The Economics & Statistics Department also could not provide information of the same for the period covered by audit. In absence of the information, audit could not analyse the impact of AIBP in the State.

In reply to audit requisition, the Department furnished (July 2014) information obtained from Agriculture Department on cultivated areas and yields of cereals and other vegetable crops. The cultivated area and gross yields of paddy, beans, potatoes, maize during the years from 2009-13 (figures for 2013-14 were not available) in the selected four districts are given below:

Table 2.4.12.1

District	Year	Paddy		Beans		Potato		Maize	
		Area sown (Ha)	Gross yield (MT)	Area sown (Ha)	Gross yield (MT)	Area sown (Ha)	Gross yield (MT)	Area sown (Ha)	Gross yield (MT)
Dimapur	2009-10	39290	1558	NA	NA	530	10528	6600	1125
	2010-11	44930	2287	NA	NA	590	12567	6800	1946
	2011-12	45480	2310	NA	NA	640	9031	6690	1964
	2012-13	46190	2408	NA	NA	680	10044	6720	1966
Kohima	2009-10	15740	1461	290	1103	1390	11136	4490	1004
	2010-11	17930	2088	310	1225	1440	12527	4600	1960
	2011-12	13570	2187	320	1250	1470	9040	4610	1960
	2012-13	13660	2293	330	1333	1510	10099	4610	1961
Tuensang	2009-10	15580	1294	200	1100	850	11847	9980	1044
	2010-11	15040	1971	190	1263	900	12455	10080	1969
	2011-12	14070	1946	200	1250	910	9021	10100	1967
	2012-13	14140	2078	210	1285	940	9787	10110	1969
Wokha	2009-10	17520	1376	210	1095	430	10558	5190	1113
	2010-11	18070	2043	250	1240	480	12562	5180	1961
	2011-12	17020	2047	260	1230	510	9019	5190	1951
	2012-13	17070	2149	260	1345	540	10000	5200	1954

(Source: Information furnished by the Department)

From the table, it could be noticed that areas of paddy sown decreased in Kohima, Tuensang and Wokha during 2011-12 and 2012-13. Also the area of beans cultivation in Tuensang district decreased in 2010-11. The yield of paddy crop, beans and maize in Tuensang district decreased in 2011-12. The yield of beans and maize in Wokha district also decreased in 2011-12. Yield of potato crop decreased in 2011-12 and 2012-13 as compared to that of previous years. The decrease in cultivated areas and crop yields indicated that implementation of AIBP in the State obviously did not lead to increase in agricultural yields.

Further, as per statement furnished to audit, the year-wise total areas under cultivation in the State during 2009-10 to 2012-13 were as shown below:

Table 2.4.12.2

(Area in Hectare)

Year	Paddy	Beans	Potato	Maize	Total(IP)
2009-10	168570	2050	5980	68200	244800
2010-11	181390	2150	6250	68550	258340
2011-12	181580	2190	6510	68520	258800
2012-13	183330	2270	6900	68670	261170

(Source: Information furnished by the Department)

The increase of cultivated area (irrigation potential) from 2009-10 to 2012-13 was 16,370 Ha (261170 Ha-244800 Ha). However, during this period, the Department

claimed that 21012<sup>44</sup> hectares of Irrigation Potential was created by executing and commissioning 393 projects under AIBP. Thus, the Irrigation Department exaggerated the achievement figures of irrigation potential created during the period.

It is evident from the following irregularities noticed during spot verification of 92 projects that the implementation of projects under AIBP in the State had not led to a positive impact for the State in terms of enhancing the agriculture yield.

**Table 2.4.12.3**

<b>Sl. No.</b>	<b>Audit findings</b>	<b>No. of projects</b>	<b>Reference to paragraph</b>
1	Projects were abandoned due to		
(i)	Implementation of projects without water source	13	2.4.7.6 (i)
(ii)	Implementation of projects without CCA	8	2.4.7.7 (i) to (iv)
(iii)	Non-maintenance and poor workmanship	3	2.4.9.4 (i) to (iii)
2	Permanent damage of projects due to inadequate survey	2	2.4.7.5 (i) & (ii)
3	Non-implementation of projects despite submission of completion report	1	2.4.9.3
4	Release of full payment against incomplete and abandoned projects	1	2.4.9.2
5	Non-utilisation of completed project	1	2.4.10 (iii)
6	Non-adoption of multi cropping pattern	43	2.4.10 (iv)

The Department in their reply accepted (September 2014) the non-maintenance of the records and stated that the data furnished from Agriculture Department in respect of some cereal and vegetable crops are not necessarily indicative of the impact of irrigation development in the State. The correct data of Irrigation Potential Created, Irrigation Potential Utilised, CCA etc. would be maintained after conduct of 5<sup>th</sup> MI Census which would be carried out during 2014-15 with reference year of 2013-14. The increase in agriculture production and productivity through irrigation schemes by the Department can be assessed by overall socio-economic index of the rural population of the State.

### **2.4.13 Conclusion**

Projects were selected without conducting preliminary survey for arriving at the Irrigation Potential. Detailed surveys were also not undertaken before preparation of DPRs resulting in unviable schemes being taken up. There was no coordination between the Agriculture and allied Departments and I&FCD for successful

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44

<b>Year</b>	<b>No of projects</b>	<b>IP (Ha)</b>
2009-11	177	9891
2011-12	96	4792
2012-13	120	6329
<b>Total</b>		<b>21012</b>

implementation of the irrigation projects. There were delays in release of funds by the State Government and the funds released were also parked in Civil Deposit for periods ranging between 48 and 252 days. Utilisation Certificates were not based on the actual funds expended and there was no system in the State for submission of audited Statements of Expenditure, an important requirement under AIBP.

The execution of the projects were not properly supervised and monitored. Hence, there were cases of non/short execution of works, deviation from DPRs etc. The detailed specifications of works as mentioned in the DPRs were recorded verbatim in the MBs without verifying the actual execution of works at the project site. Therefore, incomplete, abandoned and un-executed works were reported as complete and full payments were released. Execution of projects without cultivable command areas and water sources as well as payment of money on fictitious measurements indicated that the construction works were executed primarily to show utilisation of the scheme funds.

There was no community participation in the implementation of AIBP in Nagaland. Water Users' Associations (WUAs) were formed only to observe formality at the time of sending proposals to facilitate issue of work orders. The beneficiaries were not made aware about the benefits of the irrigation projects and their responsibility to maintain the completed and handed over projects. The Department neither had information on actual creation of CCA, gross irrigated area, cropping intensity etc. nor assessed the impact of implementation of AIBP in the State. As a result, the farmers continued to adopt the traditional way of mono cropping- paddy cultivation rather than shifting to multi cropping pattern.

#### **2.4.14 Recommendation**

- ❖ The Department should ensure that proper survey is conducted before the projects are taken up.
- ❖ Financial management should be strengthened at all levels for timely release of funds in order to avoid incorrect reporting on utilisation of funds.
- ❖ Execution of projects should be supervised at every stage to create quality and functional infrastructure as per the approved DPRs.
- ❖ The Department should ensure that releases of payments are as per actual works carried out and recorded in the MBs.
- ❖ Participation of the farmers should be ensured in the process of planning, execution and maintenance of projects by forming WUAs and clearly defining their functions and responsibilities.
- ❖ Effort should be made to have an independent evaluation of the impact of AIBP in the State for taking corrective action and for future planning of the schemes.

**PUBLIC WORKS (ROADS & BRIDGES) DEPARTMENT**

**2.5 Fraudulent drawal**

The Executive Engineer, Public Works Department (R&B) Atoizu Division drew pay and allowances of ₹ 78.51 lakh in 15 bills against non-existent employees.

Rule 34 of the Receipt and Payment Rules, 1983 provides that a Bill Register should be maintained by all the Head of Offices who are authorised to draw money on bills signed by them. To prevent presentation of fraudulent bills to the treasury, a Bill Transit Register is to be maintained by the DDO and crosschecked with the Bill Register. Further, Rule 66 *ibid* stipulates that the pay bills may be prepared by including both permanent and temporary establishments and divided into separate sections comprising the establishments and indicating the description of each section prominently along with sanctioned number of posts included therein. In respect of permanent posts, the sanctioned strength need only be indicated at the top of each section of posts while in the case of temporary posts, the number and date of sanction letter also should be indicated.

During scrutiny (October 2013) of pay bills of April 2013 of the establishment of the Executive Engineer (EE), Public Works Department (PWD) (R&B), Atoizu Division, Zunheboto it was observed that pay and allowances amounting to ₹ 6.60 lakh was drawn against 23 Grade III employees in one bill. As the pay bill did not contain the authority, the sanctioned post, etc. as required under rules, audit obtained a list of employees under the establishment from the Chief Engineer (R&B) to ascertain the genuineness of the drawal. On cross verification, it was found that none of the persons whose names appeared in the above pay bill were employed in the division by the Department confirming that the amount was fraudulently drawn. Detailed scrutiny of similar drawals by the concerned DDO for the period from December 2010 to May 2013 revealed that the division had drawn ₹ 78.51 lakh in 15 bills as detailed in *Appendix –2.5.1* against non-existent employees<sup>45</sup> following the same *modus operandi*.

Thus, non-observance of rules by the EE and the Treasury Officer led to fraudulent drawal of ₹ 78.51 lakh.

In reply, the Chief Engineer (CE) stated (August 2014) that the matter was reviewed by the Division and it was found that some employees were appointed against specific works while some others (work charged) were attached/posted temporarily from other divisions. They further stated that efforts are being made to arrive at conclusive facts and figures and sought further extension of time to submit their replies.

The reply was not tenable as pay and allowances of work-charged employees are drawn separately on the strength of drawal authorities issued by the Finance

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<sup>45</sup> 9 to 25 numbers

Department and not on regular pay bills. Further, ₹ 78.51 lakh drawn in 15 bills were against Grade III employees and not against work charged employees as claimed by the CE.

The matter was reported to the Government (May 2014); reply had not been received (December 2014).

## LAND RECORDS AND SURVEY DEPARTMENT

### 2.6 Suspected Misappropriation

Director, Land Records and Survey Department drew ₹ 1.24 crore meant for implementation of National Land Records Modernisation Programme on the basis of forged Actual Payee Receipts in the name of three District Land Records and Survey Officers.

The National Land Records Modernisation Programme (NLRMP) is a Centrally Sponsored Scheme (CSS) launched by Government of India (GOI) in August 2008 aimed to modernise management of land records, minimise scope of land/property disputes, enhance transparency in the land records maintenance system and facilitate moving eventually towards guaranteed conclusive titles to immovable properties in the country. The major components of the programme are computerisation of all land records including mutations, digitisation of maps and integration of textual and spatial data, survey/re-survey and updation of all survey and settlement records including creation of original cadastral records wherever necessary, computerisation of registration and its integration with the land records maintenance system, development of core Geospatial Information System (GIS) and Capacity Building. The expenditure for the scheme was to be shared between the Centre and the State in the ratio of 90:10.

The GOI, Ministry of Rural Development, Department of Land Resources released an amount of ₹ 5.75 crore (September 2011) being Central share for implementation of NLRMP in six<sup>46</sup> districts of Nagaland during the year 2011-12. Out of this, the Director, Land Records & Survey (LRS), Dimapur drew ₹ 3.38 crore<sup>47</sup> in March 2012 after depositing the remaining amount of ₹ 2.37, crore<sup>48</sup> in Civil Deposit (March 2012) as directed by the Finance Department. The Director (LRS) withdrew (August 2012) ₹ 2.37 crore<sup>49</sup> from Civil Deposit.

Scrutiny of records<sup>50</sup> of the Director (LRS) revealed that out of ₹ 2.37 crore drawn in August 2012, ₹ 2.20 crore was paid to five District Land Records and Survey Officers (LRSOs) and other agencies involved in the implementation of the scheme between January and September 2013 (*Appendix- 2.6.1*) which inter alia included an amount of ₹ 1.24 crore paid to three LRSOs selected for cross verification as shown in the following table:

<sup>46</sup> Dimapur, Peren, Kohima, Wokha, Phek and Mokokchung

<sup>47</sup> Bill No.343 dated 28.3.2012

<sup>48</sup> Bill No.342 dated 28.3.2012

<sup>49</sup> vide bill No.102 dated 24.8.2012

<sup>50</sup> Cash book, Actual Payee Receipts and Payment Register

To whom paid	Date of payment	Amount
Land Records Survey Officer, KOHIMA	31.1.2013	4000000
Land Records Survey Officer, WOKHA	31.1.2013	4000000
Land Records Survey Officer, WOKHA	4.6.2013	1200000
Land Records Survey Officer, KOHIMA	4.6.2013	1200000
Land Records Survey Officer, DIMAPUR	4.6.2013	1966000
<b>Total payment as per Actual Payee Receipt (APR) &amp; Cash Book</b>		<b>12366000</b>

Scrutiny of the records such as APRs and the Cash Book (November, December 2013 & January 2014) of the above three LRSOs revealed that the funds purportedly paid were not received by the respective LRSOs. This was further confirmed by the LRSOs in written reply to audit query.

Thus, ₹ 1.24 crore was suspected to be misappropriated by the Director (LRS) on the basis of forged documents affecting the implementation of the scheme.

The Department/Government in their reply (June 2014) stated that on cross verification of the available documents it was ascertained that the transactions occurred during the time of former incumbents in the Districts and not by the present incumbents.

On receipt of the reply, audit attempted to conduct a re-verification of the facts from the District offices. It was noticed that the amounts were neither entered in the Cash Books as receipt nor expenditure there against booked in the Cash Books of LRSOs. Further, it was also observed from the Bank Statement of the Directorate that no fund was transferred/deposited to the accounts or cheques issued in favour of the above LRSOs.

## RURAL DEVELOPMENT DEPARTMENT

### 2.7 Fictitious procurement

The Block Development Officer cum Programme Officer MGNREGA, Phomching Block mis-utilised ₹ 5.49 crore meant for procurement of stone boulder and chips by producing fabricated records showing non-existent stone industries

As per the financing pattern prescribed by GOI under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), GOI bears the cost of wages for unskilled manual labour and also 75 per cent of the cost of material, wages for skilled and semi-skilled workers. The State Government has to bear 25 per cent of the cost of material, wages for skilled and semi-skilled labour. The Block Development Officer cum Programme Officer (BDO), Phomching received an amount of ₹ 16.23 crore during 2011-12 and 2012-13 for implementation of the scheme. Out of this, ₹ 6.15 crore was for material component and the remaining amount of ₹ 10.08 crore was wage component.

Examination (July 2013) of records of the BDO revealed that out of the material component of ₹ 6.15 crore, the BDO utilised ₹ 5.49 crore for procurement of stone boulders and chips through 13 Village Development Boards (VDBs) from three Stone

Crusher Industries located in Phomching and Tapi Villages as shown in the *Appendix 2.7.1*. The Actual Payee Receipts (APR)<sup>51</sup> and the cash memos<sup>52</sup> were signed by the VDB Secretaries and counter signed by the BDO.

To ascertain the genuineness of the procurement, audit collected the details of the Stone Crushers existing in Phomching and Tapi villages<sup>53</sup> from the District Industries Centre (DIC), Mon and the Directorate of Industries (DoI), Nagaland, where all the Stone Crushers were to be registered. Information received from the DIC and DoI revealed that the above three Stone Crusher Industries were not registered at any point of time.

In reply the Department stated (April 2014) that the funds were transferred to VDBs account as per scheme guidelines and all procurements were done by them as per the local arrangements. Regarding non-registration, it was stated that stone industry/crusher falls outside the purview of the Industries (D&R) Act 1951 which makes licensing compulsory. The Department also furnished certificates from the three suppliers which stated that though the firms were not registered, they were engaged in supply of stone boulders, chips, etc. and the Registration Number was shown in the bills due to ignorance.

The reply of the Department was not acceptable as a joint physical verification conducted (September 2014) by audit along with Sub-Divisional Officer (Administration) revealed that the above three stone crushing units were non-existent. Moreover, it was also seen from the bank statement that in most of the cases the funds for material component (stone boulders, etc) were drawn from the BDO's account during the period on cash cheques issued in the name of VDB Secretaries and the funds were not transferred to the accounts as claimed by the Department.

## POWER DEPARTMENT

### 2.8 Delay in execution of project

Prolonged delay in execution and commissioning of Lang Hydro Electric Project with 1 MW capacity not only led to increase in cost of production but also resulted in escalation of project cost besides depriving the State the intended benefit of 7.44 MU of power per year for ten years forcing the State to resort to purchase of power from other sources to fill the gap.

Department of Power, Government of Nagaland (DoPN), after considering the potentiality of generating hydropower in Lang River, Tuensang District conceived (1992) construction of Lang Hydro Electric Project (LHEP) with 1 MW capacity with an initial estimated cost of ₹ 8.39 crore. The project was jointly funded by the State Government (GoN) and Ministry of Non-Renewable Energy (MNRE) with a capital

<sup>51</sup> Indicating that the allotted money was received by the VDBs

<sup>52</sup> Supplier bills certifying that the material were received in full

<sup>53</sup> The villages where those stone crushers were reportedly located



subsidy amounting to ₹ 6.00 crore by MNRE. The project was to be commenced in 2000-01 and made operational by March 2003.

The construction work actually commenced in 2002-03 with the release of first installment of ₹ 60.00 lakh from MNRE. However, the project could not progress due to non-provisioning of funds from 2003-04 to 2007-08 by the GoN coupled with deplorable road communication and remoteness of the project site. Thereafter, from 2009-10 State Government started releasing the funds and eventually commissioned the project on 23 April 2013 at a total expenditure of ₹ 22.98 crore i.e, ₹ 14.59 crore in excess of the initial estimated cost.

The initial Detailed Project Report of LHEP envisaged that cost of generation per unit from the above HEP would be ₹ 1.35 per Kwh and the above HEP would be generating 7.44 MU annually. However due to increase in project cost, the cost of generation increased from ₹ 1.35 per Kwh to ₹ 5.298 per Kwh on commissioning the project.

Thus, the delay in implementation of the project not only led to increase in cost of production but also deprived the State the intended benefit of 7.44 MU of power per year for ten years from April 2003 to April 2013 forcing the State to resort to purchase of power from other sources to fill the gap.

In reply (July 2013), Executive Engineer (EE), Hydro Electric Division, Kohima stated that the project construction was delayed due to remoteness of the project location and non-provisioning of matching fund by the State Government for 6 years (2003-04 to 2008-09) which resulted in cost escalation of the project cost to ₹ 22.98 crore and generation cost to ₹ 5.298 per Kwh at the commissioning the project (23 April 2013).

The fact however, remained that there was cost escalation due to delay in implementation of the project and the beneficiaries did not obtain the intended benefits from the project.

The matter was reported to the Government (February 2014), reply had not been received (December 2014).