Chapter - II
Performance Audit

Chapter-II

Performance Audit

Water Resources Department

2.1 Polavaram Irrigation Project

Executive Summary

Polavaram Irrigation Project was contemplated to provide inter alia irrigation, supply of drinking water, generation of Hydro Electric Power and diversion of Godavari water to Krishna River. Audit noted several deficiencies in planning and execution of the project. The Department submitted the Detailed Project Report (DPR) to Central Water Commission (CWC) in 2005. However, it took four years to rectify deficiencies pointed out by CWC and obtain approval of CWC. Progress of works, taken up during the years 2004-2006, was slow mainly due to changes in design and delays in land acquisition, finalization of alignments/ designs/ drawings and in shifting of public utilities.

The Department was yet to acquire 36,009 acres of land in the submergence areas and a further 26,830 acres of land required for allotment to the Project Affected Families. The Department was yet to rehabilitate 96 per cent of the Project Displaced Families (PDFs). Government was yet to sort out the submergence issues with the neighbouring States of Chhattisgarh and Odisha. The work of constructing protective embankments to prevent submergence in those States had not yet commenced.

The total cost of the project increased from ₹10,151.04 crore in 2005 to ₹55,133 crore in 2017. Even after three years since declaration of the Project as National Project, no Memorandum of Understanding (MoU) was concluded between GoAP and GoI. There was short reimbursement of project expenditure of ₹3249 crore to GoAP by GoI. Out of this, ₹1407.64 crore was not released due to non-submission of details of expenditure incurred on LA and R&R. The GoAP granted several relaxations to the contractor of Head works. However, the progress of work was not as stipulated. Despite slow progress and delays attributable to the contractors, Department failed to levy liquidated damages on contractors.

The Department was yet to arrange Third Party Quality Control and Quality Audit of the project works. Monitoring in respect of progress of R&R implementation and compliance of Environmental/ Forest Clearance conditions was weak.

2.1.1 Introduction

The Polavaram Project is located in Andhra Pradesh on the river Godavari, near Ramayyapeta village of Polavaram Mandal in West Godavari district. It is a Multi-purpose Project which contemplated the following benefits:

- Providing irrigation benefits to 2.91 lakh hectares (7.20 lakh acres) in four districts (of East Godavari, Visakhapatnam, West Godavari and Krishna Districts) in AP State;
- Generation of 960 Mega Watts of Hydro Electric Power;
- Diversion of 80 Thousand Million Cubic feet (TMC) of water through the right canal to Krishna river to augment the supplies of Krishna Basin for irrigation purpose;
- Industrial water supply for the Visakhapatnam Township and Vishakhapatnam Steel Plant through the left canal; and
- Domestic water supply to villages and towns en-route, besides indirect benefits such as development of Pisciculture, etc.

The Government of Andhra Pradesh (GoAP) initiated the project in 2004 with an estimated cost of ₹10,151.04 crore. The GoAP revised the project cost to ₹16,010.45 crore with 2010-11 price level in 2011. The Andhra Pradesh State Re-organization Act, 2014 declared the Project as a National Project in March 2014. The Polavaram Project consisted of the following works components:

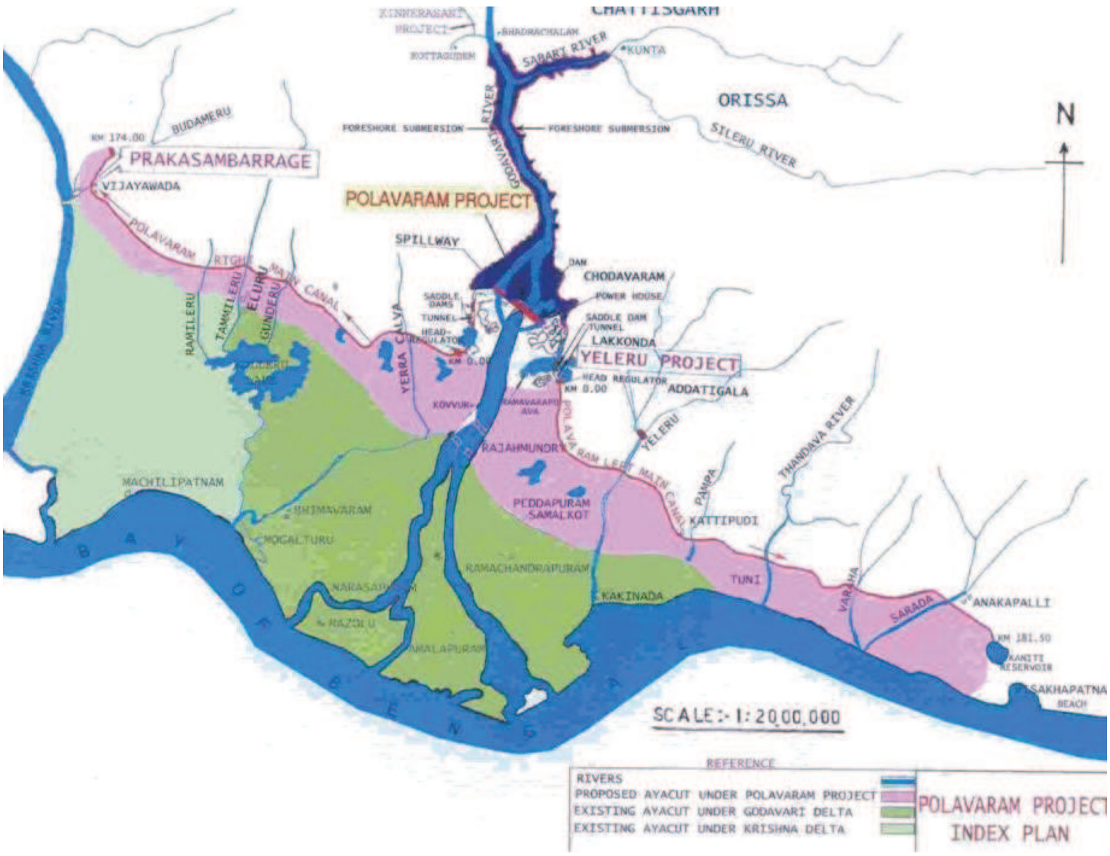
- Head Works consisting of Spill Way, Earth-cum-Rock fill (ECRF) Dam, Power House, Connectivities to Right and Left Main Canals;
- Right Main Canal (RMC) of a total length of 174 KM passing through West Godavari and Krishna districts; and
- Left Main Canal (LMC) of a total length of 181.5 Km passing through East Godavari and Visakhapatnam districts.

Construction of the project was ongoing and the total expenditure incurred on the project was ₹12,147 crore, as of July 2017. The details of expenditure are shown in Table 2.1:

Table 2.1 - Details of component wise expenditure incurred on Polavaram project

Component of project	Expenditure incurred (₹ in crore)
Works	6176
Land Acquisition (LA)	4161
Rehabilitation and Resettlement (R&R)	599
Others[1]	1211
Total	**12147**

*(**Source:** Records of the Water Resources Department)*



Map of Polavaram Project

*(**Source:** Water Resources Department)*

2.1.2 Organizational setup

After declaration of National Project, the Ministry of Water Resources (MoWR), Government of India (GoI) had created (May 2014) the Polavaram Project Authority (PPA). The PPA has to oversee the project construction and release funds due from GoI. As per the present arrangement between the GoI and the GoAP, the Water Resources Department (WRD) of GoAP, headed by

[1] This includes the expenditure on Project establishment, payments made to Forest Department and other miscellaneous items.

the Secretary (Projects), is responsible for execution of the project on behalf of PPA/ MoWR. The Engineer-in-Chief (E-in-C), Polavaram Irrigation Project assisted by four Superintending Engineers (SEs) at Circle level, 23 Executive Engineers (EEs) at Divisional level oversee the project execution.

2.1.3 Scope and Methodology of Audit

Audit had earlier reviewed the implementation of Polavaram project in the year 2011 and the results of audit had appeared in the Report of the Comptroller and Auditor General of India (C&AG) on 'Jalayagnam' (Report No.2 of 2012). Further, the Report of C&AG on Economic Sector for the year ended March 2014 (Report No.2 of 2015) covered the issues relating to implementation of Resettlement and Rehabilitation (R&R).

This Performance Audit covers the implementation[2] of Polavaram Project during the period from April 2012 to March 2017. This Report also includes the updated position of the issues covered in the earlier Audit Reports wherever such issues have contemporary relevance. It also covers the events that occurred during the prior period but not covered in the earlier Audit Reports.

Audit teams visited (during May to August 2017) the offices of the Secretary, WRD, Engineer-in-Chief, three SEs, 18 EEs, seven Land Acquisition Offices and five R&R offices, involved in implementation of the project. Audit methodology included examination of records, issue of audit enquiries/questionnaires and seeking replies in the audited offices, and field visits to the project sites. Audit conducted an entry conference in May 2017 with the Secretary, WRD and other engineering staff to discuss the audit objectives, scope and methodology. The exit conference was held in December 2017 with the Secretary, WRD and Departmental Officials.

2.1.4 Audit objectives

This Performance Audit seeks to examine whether:

- The GoAP planned the Project in accordance with the guidelines of Central Water Commission;
- The GoAP executed the Project in an economic, efficient and effective manner; and
- Adequate monitoring mechanism existed and was effective during implementation.

[2] As regards Land Acquisition/R&R, the audit examination was limited to only the progress of these components. Payments made to land losers/project affected persons were not examined in audit.

2.1.5 Sources of Audit criteria

Audit used the following sources of audit criteria as benchmarks for this Performance Audit:

- Guidelines and circulars/instructions issued by the Ministry of Water Resources (MoWR)/Central Water Commission (CWC) on irrigation projects;
- Detailed Project Report of the Polavaram project;
- Conditions stipulated by the Ministry of Environment and Forests and the Ministry of Tribal Affairs in the clearances given for Polavaram project;
- Andhra Pradesh Public Work Department Code and Andhra Pradesh Detailed Standard Specifications;
- Land Acquisition Act – 1894, GoAP Rehabilitation and Resettlement (R&R) Policy 2005, Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act – 2013 (RFCT LARR Act 2013); and
- Terms and Conditions of the works contracts entered into by the Department with the contracting agencies.

2.1.6 Acknowledgement

Audit acknowledges the cooperation extended by the Department during the course of Audit.

Audit findings

2.1.7 Detailed Project Report (DPR)

The CWC had issued (1980 and 2010) 'Guidelines for preparation of Detailed Project Reports for Irrigation and Multi-purpose projects'. The Department was required to prepare the DPR in accordance with the CWC guidelines. The Water Resources Department of GoAP submitted DPR on Polavaram Irrigation Project to the Central Water Commission (CWC) in the year 2005. Hydrological studies, design issues and planning aspects are important elements in the DPRs of irrigation projects.

(i) The CWC had pointed out several deficiencies relating to hydrological studies, design issues and planning aspects in the Department's DPR submitted in 2005. The Department took four years to rectify the deficiencies and obtain the approval. CWC approved the DPR in the year 2009. The delay in approval of DPR and design parameters of the project had an adverse impact on the execution of the project, especially the dam works, as discussed in Paragraph 2.1.10.

Government in its reply (December 2017) stated that delay of four years is mainly because of delay in getting forest clearance and various other clearances.

The fact remains that the Department failed to obtain statutory clearances, i.e., Forest clearance and Environment clearance before submission of the DPR to the CWC for approval. Delay in rectification of the deficiencies including the design parameters of the project contributed to delays in completion of the project construction and achievement of intended benefits.

(ii) The DPR approved by CWC in 2009 was not complete in all respects. Audit observed the following deficiencies in the DPR:

a) The CWC guidelines stipulated that modern techniques like remote sensing, satellite imagery, etc. shall be used for collection of data during survey. The aerial surveys were to be conducted wherever necessary, for better appreciation of the project area. The Department had not used any of these methods. It relied upon only topographical sheets of Survey of India and field surveys conducted by the Department.

   Government accepted that the Department did not use modern techniques and aerial survey.

b) The Department proposed to bring the already existing command areas under various medium and minor irrigation projects, under the command area of this project. However, the details of command area under existing projects were also not mentioned in DPR.

c) The DPR did not mention the complete details of land required for each project work; head works, right main canal, left main canal and connectivities. It also did not contain the details of land to be acquired for Rehabilitation and Resettlement (R&R) for the Project Affected Families (PAFs).

   The Government reply is silent on details of command area under medium and minor irrigation projects.

2.1.8 Project Cost

The Department in its DPR 2005 estimated the project cost as ₹10,151.04 crore. CWC approved the DPR in the year 2009. The Department submitted a revised DPR in 2010 for ₹16,010.45 crore. The Department had incurred an expenditure of ₹5,549 crore during the period 2004-05 to 2013-14. The expenditure incurred on activities prior to approval of DPR was ₹1,889.77 crore (works: ₹1,085.41 crore and lands: ₹804.36 crore).

The Polavaram Project Authority (PPA) has to oversee the project construction and release of funds. The GoI had agreed to bear the expenditure incurred beyond April 2014 on the irrigation component of Polavaram Project. As per existing arrangement, the GoAP would execute the works with the funds from the State budget. On receipt of the claims, GoI would reimburse the expenditure incurred on irrigation component to GoAP through PPA.

(i) GoAP during the period April 2014 to July 2017 incurred an expenditure of ₹6,598.70 crore on irrigation component of the project. GoI through the PPA reimbursed to GoAP ₹3,349.70 crore, as shown below:

Table 2.2 - Expenditure by GoAP and reimbursement by GoI

(₹ in crore)

Year	Expenditure incurred by GoAP	Amount reimbursed by GoI
2014-15	439.48	245.00
2015-16	1868.30	590.00
2016-17	1700.21	2514.70
2017-18 (up to July 2017)	2590.71	0.00
Total	**6598.70**	**3349.70**

*(**Source:** Records of the Department)*

There was a short reimbursement of ₹3,249 crore. The Department had not submitted the details of expenditure of ₹1,407.64 crore on land acquisition and R&R to the PPA. **This amount was not reimbursed by the PPA due to non-submission of details by the Department.** Audit observed that the Department does not have a system to promptly capture, classify, consolidate and report the expenditure on land acquisition and R&R. The reasons for short reimbursement of the remaining amount of ₹1,841.36 crore were not on record.

As per National Projects Guidelines, a Memorandum of Understanding (MoU) needs to be concluded between GoAP and GoI regarding procedure for release of funds. Audit observed that the parties concerned did not sign any MoU even after more than three years from the date of declaration of the National Project. The parties also did not lay down the procedures to be followed for submission of claims to the PPA and the methodology of checking the claims and reimbursement. The parties had not yet fully streamlined the reimbursement process. The reasons for non-entering into MoU were not evident from the records made available to Audit.

Government replied that the details of expenditure on land acquisition and R&R up to November 2017 had been submitted to PPA for reimbursement. It further stated that the draft MoU had been submitted to GoI. The reply did not state the specific reasons for non-conclusion of MoU till December 2017.

(ii) The PPA in its meeting in March 2015 and also in the subsequent letters[3] asked the Department to submit the revised cost estimates at current price levels. The Department had submitted (July 2017) cost revision proposals in respect of the head works of the project (including R&R, land acquisition and power house component) for ₹47,112 crore with the price level of 2013-14. It had not submitted the revised cost estimate of Right and Left main canals to PPA. However, the Department had internally worked out the revised cost and approved the cost of estimate of ₹ 8,021 crore[4] for these canals. Further, the project had a total irrigation potential of 7.20 lakh acres, the Department had not prepared the estimates for 3.28 lakh acres of distributary network in the revised estimates. **If the revised cost of all the above project components are taken into account, the total project cost would be ₹55,133 crore apart from the cost of distributary network which was not yet worked out by the Department**.

Table 2.3 – Details of increase in project cost

(₹ in crore)

Component of the Project	Cost as per DPR 2005	Cost as per DPR 2010	Cost as per latest estimates
Head works	3,931.53	6,600.56	11,638.20
Left Main Canal	856.55	1,472.05	3,024.66
Right Main Canal	1,273.82	2,135.09	3,167.86
Power	2,192.71	2,865.49	4,171.74
Works Total	**8,254.61**	**13,073.19**	**22,002.46**
Land acquisition and R&R	**1,896.43**	**2,937.26**	**33,130.13**
Total	**10,151.04**	**16,010.45**	**55,132.59**

(***Source:*** Project DPRs and records of the Department)

The cost of works (head works, connectivities, left main canal and right main canal works) had increased from ₹8,255 crore to ₹22,002 crore mainly due to revision of rates, changes in designs, price escalation, etc. as discussed in Paragraphs 2.1.9.2 (iv) and 2.1.10 (i). In the DPR 2005 and DPR 2010, the estimated cost of land acquisition and resettlement and rehabilitation of project displaced persons constituted only 18 *per cent* of the total project cost. In the latest (July 2017) estimates, their cost constituted 60 *per cent* of the proposed project cost. It increased from less than ₹3 thousand crore to more than ₹33 thousand crore. The cost increased mainly due to increase in the cost of land as well as introduction of Right to Fair Compensation and Transparency in

[3] The PPA letters dated 01.02.2016, 16.02.2016, 06.09.2016 and 25.04.2017.
[4] RMC revised estimate: ₹ 4375.776 crore + LMC revised estimate: ₹ 3645.15 crore.

Land Acquisition, Rehabilitation and Resettlement (RFCT LARR) Act – 2013. The project is scheduled for completion by June 2019.

Government replied that the approval of revised cost and reimbursement was pending with Government of India.

2.1.9 Land Acquisition and R&R

2.1.9.1 Land Acquisition (LA)

(i) Progress of land acquisition: The Department was to acquire the lands for the project works, for submergence[5] area and for R&R measures[6]. The Department retained the responsibility of identification of land that would come under submergence. Department to a large extent relied on its Engineering Procurement and Construction (EPC) contractors for identification of lands required for the works. The Commissioner/ Project Administrators (R&R) had the responsibility of identification of lands for providing R&R to PAFs. The details of land acquired as per the earlier Land Acquisition Act 1894 and RFCT LARR Act 2013 and the balance land to be acquired are as follows:

Table 2.4 – Land acquisition details

Component	Total land required for the project (in acres)	Land acquired as per LA Act 1894		Land acquired as per RFCT LARR Act 2013		Balance land to be acquired	Estimated cost (₹ in crore)
		land acquired (in acres)	Expen--diture (₹ in crore)	land acquired (in acres)	Expen--diture (₹ in crore)		
Submergence	103585.21	54448.69	356.67	13127.50	1588.49	36009.02	4095.07
Land to PAFs R&R Centres	37163.93	9229.95	118.80	1103.65	788.61	26830.33	2728.76
Works	24682.33	22515.81	631.09	2166.52	719.27	0	0
Total	**165431.47**	**86194.45**	**1106.56**	**16397.67**	**3096.37**	**62839.35**	**6823.83**

(***Source:*** Information furnished by the Special Collector (LA), PIP, Rajahmahendravaram)

Audit observed that the Department, in its DPR, did not provide complete details of extent of land required for each project work; head works, right main canal, left main canal and connectivities. Department awarded the project works without identifying/ acquiring the required land. Department, instead entered into EPC contracts, conditions of which stipulated that agencies have to conduct detailed survey and investigations. The EPC Agencies would

[5] The areas that are going to be inundated due to impounding of water into the project.
[6] This includes allotment of land to the Project Affected Families (PAFs) and for setting up R&R centres for them.

submit proposed alignments/locations to the Department for approval. Agencies, after receiving such approvals, would identify the land and submit the land plan schedules to the Department. After receipt of Land Plan schedules from contractors, the Department would conduct survey of the identified land jointly with the LA authorities and contracting agencies. The Department, thereafter, would place indents with the LA authorities for initiating the LA process. Department would hand over the acquired land to the agencies for the execution of the works. Audit observed that this system led to acquisition of land in piece-meal manner. It is seen from the records that Department had sent 2 to 19 indents to LA authorities in respect of connectivities and canal packages.

As per the EPC agreements, the alignments of canals were to be finalized within six months, which was the first priority in the Project. However, there were abnormal delays in finalizing alignments of canals. The Department had to give extension of time (EOT) for completion of balance work portions on multiple occasions. The department had given EOTs due to delay in obtaining forest clearances, delay in LA and R&R and court cases. This system resulted in delay in execution of works and contributed to increase in costs.

Department awarded Right Main Canal works in seven packages in October 2004 with stipulation to complete by October 2006. It awarded Left Main Canal works in eight packages during March 2005 to March 2006 with stipulation to complete in 24 months. Audit observed that Department could not ensure acquisition of the required land within the original agreement periods in any of these 15 packages. Out of the total land of 22,891 acres acquired for the canal works, the Department acquired only 13,614 acres within the original agreement period of two years. It acquired the remaining 9,277 acres after completion of the agreement period. The delay in acquisition of land ranged between 6-120 months.

Government replied that almost 99 *per cent* of the land had been acquired for works. In respect of submergence area, the LA and rehabilitation of PAFs were being taken up in line with the progress of works. It also stated that the land for R&R would be identified and acquired by the R&R authorities duly locating the R&R centres as per the consent of villagers. However, the fact remains that the Department/contractors failed to identify and acquire land within the original agreement period. This led to delay in completion of the Project works.

(ii) Utilization of lands acquired for R&R centres: The Department, during 2005-06 had acquired 596.38 acres in East Godavari district for distribution to PAFs[7] against their lost lands. Audit observed that the Department utilized

[7] 56 villages in three mandals i.e., Addateegala; Devipatnam and Gangavaram

only 104.31 acres of land so far and left 492.07 acres of land unutilized. This was because the Department could not convince the PAFs who did not agree for construction of R&R centre in that area. Thus, the expenditure of ₹1.72 crore incurred on acquisition of this land had not fulfilled the desired objective of R&R.

Government replied that the R&R action plan was being implemented in a phased manner and all the lands acquired would be utilized to full extent. However, the Department had not utilized the land of 492.07 acres even after 12 years of acquisition.

(iii) Lapsing of LA notifications: Under Section 11 and 11A of the LA Act 1894, the Collector shall make an award within a period of two years from the date of publication of the declaration. It also stipulated that if no award is made within that period, the entire procedure for the acquisition of land shall lapse.

Land Acquisition Officer (LAO) issued Draft Notifications (DN) (July 2012-October 2013) for acquisition of land under submergence area of project. The total extent of land was 67.73 acres including structures[8] thereon constructed on Government lands in eleven villages[9] in Devipatnam Mandal, East Godavari District. The LAO issued Draft Declarations[10] (DD) during January 2013 to January 2014. Audit observed that Department/LAO could not obtain the valuations for the structures to be acquired, from the departments[11]. As a result, the LAO could not pass the LA awards resulting in lapsing of DD. Consequently, the Revenue Department had to issue fresh Preliminary Notifications (PN) during June - July 2016. Audit observed that the expenditure of ₹2.66 crore incurred on process of the DN and DD during 2012-14 had become wasteful besides continued delay in acquisition of the proposed land.

Government accepted this and replied that the District Collector has called for explanation from the LAO and the R&B authorities on the delays in submission of valuation reports.

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[8] AC sheet house with cement bricks, thatched house with mud walls and thatched house with brick walls, etc.

[9] Chalakaveedhi H/o Manturu; Dandangi; Ganugulagondi; Madipalli; Mettaveedhi; Mulametta; Mulapadu H/o Toyyeru; Pudipalli; Toyyeru Agraharam; Toyyeru and Yenugulagudem

[10] If any particular land is needed for a public purpose, a Draft Declaration (DD) is issued about the intended acquisition after hearing objections of interested persons and conducting necessary enquiries.

[11] Roads & Buildings Department, Forest Department and Horticulture Department

2.1.9.2 Implementation of Rehabilitation and Resettlement (R&R)

(i) Identification of project affected villages and families: The proper assessment of the project affected villages and families were important for planning the R&R activities under the project. As per the DPR, 276 villages were coming under submergence in Andhra Pradesh. The Department had notified (July 2005) 412 villages as affected villages. The Department later (February 2006) realized that 136 out of the 412 notified villages were not coming under submergence but were falling in the alignment of canals. The Government issued orders for providing R&R benefits to 565 tribal families in three villages during 2012 to 2016 as they were falling in the alignment of canals. GoAP in January 2017 accorded permission to the Commissioner (R&R), WRD for notification of 92 additional villages. As per the latest figures (May 2017) the total number of villages coming under submergence was 371.

Department in its DPR 2005 mentioned that 44574 families would be affected under the project. Audit observed that as per the latest figures (November 2017) available in the records of the R&R Commissioner, 105601 families would be affected by the project.

Thus, the assessment of project affected villages and families by the Department at the time of preparation of DPR was inaccurate. Further, the Department took nearly 11 years for identification of the affected villages and families because of improper planning.

The Government replied that 276 villages were initially notified for R&R and that this number had increased to 371 due to identification of additional villages after conducting detailed Full Reservoir Level (FRL) survey. The reply confirms the audit observation that the number of villages was not accurately identified at the time of DPR. The reply is silent on the abnormal delays in identification of all the villages coming under submergence.

(ii) Progress of R&R activities: Polavaram reservoir, once completed is designed to store 194 TMC[12] of water. The FRL of the dam is + 45.72 M. Ministry of Tribal Affairs (MoTA) accorded R&R clearance. It stipulated that the GoAP should ensure that the R&R plan was to be completed within a specified time schedule before submergence in any area starts taking place. The Department planned to implement R&R starting from the villages located in the working area of the dam initially and then going to the villages in the higher contours in a phased manner. **Audit observed that as of March 2017, the Department was yet to rehabilitate 96 *per cent* of the Project Displaced Families (PDFs).**

[12] TMC – Thousand Million Cubic feet

Table 2.5 – Number of PDFs rehabilitated and yet to be rehabilitated as of March 2017

Contour level[13]	Storage capacity at this contour level	Total PDFs to be rehabilitated		PDFs rehabilitated so far		Balance PDFs	
		No. of villages	No. of PDFs	No. of villages	No. of PDFs	No. of villages	No. of PDFs
+35.00 M	30 TMC	27	9204	15	4069	12	5135
+41.15 M	120 TMC	64	11552	-	Nil	64	11552
+45.72 M	194 TMC	280	84845	-	Nil	280	84845
Total		**371**	**105601**	**15**	**4069**	**356**	**101532**

(***Source:*** Records of the Commissioner (R&R), Vijayawada)

Department as of March 2017 rehabilitated only 4,069 PDFs out of the total 1,05,601 PDFs identified for rehabilitation. Audit pointed out that even if the Department completes the dam works by March 2018 as targeted, it would not be able to store even 30 TMC of water in the reservoir. The Department had implemented R&R in respect of only 15 out 371 villages. The Department obtained approval for R&R plans in respect of 164 villages from the Chief Commissioner of Land Administration only in August and October 2017. Department is yet to finalize R&R plans in respect of the remaining 192 villages.

The Department had not furnished the relevant records/information relating to implementation of R&R to Audit. As a result, Audit could not analyze the reasons for the abnormal delays in R&R implementation.

Government replied that R&R action plans were prepared to be implemented in four phases simultaneously with the progress of works. It stated that at present PDFs in 14 habitations under working area had been rehabilitated to new R&R colonies under Phase-I and the R&R activities under Phases II to IV were in progress. The reply is contrary to the fact that the progress of R&R activities was not in line with the progress of works. The Department could relocate only 15 out of 371 villages in the last 12 years. It was yet to implement R&R in 356 villages though the revised target date for completion of the project was June 2019.

(iii) Utilisation of R&R centres: Department could not succeed in relocating PDFs to two R&R centres it constructed in 2013-2014 at Nagalapalli and P.Gonduru villages in East Godavari district (July 2017) as it had not paid the benefits[14] as per RFCT LARR Act 2013. The expenditure of ₹15.34 crore

[13] Contour levels represent the levels/points of equal elevation (height) above a given level, such as Mean Sea Level (MSL).
[14] R&R monetary benefits, additional gratuitous relief and civic amenities.

incurred on development of these R&R centres remained unfruitful besides non-rehabilitation of the PDFs of these two villages.

Government replied that it had sanctioned additional gratuitous relief to these villagers in February 2016. Payments were already made in majority of eligible cases and the remaining dues, if any, would be paid by December 2017. It also stated that after series of meetings, the PDFs had been persuaded for relocation to new colony which would be done by December 2017.

The fact remains that the intended purpose of constructed R&R centres could not be achieved till date.

(iv) Impact of delay in relocation of villages: The Department awarded (March 2013) the work of construction of Spillway, Earth Cum Rock Fill (ECRF) Dam and excavation of foundations of power house, approach channel, etc. to a contractor at a total agreement value of ₹4,054 crore. The contractor had showed poor progress of work stating that the Department did not complete land acquisition/R&R activities in the eight villages[15] out of 14 in the dam area. The contractor sought (June/August 2015 and March 2016) revision to agreement rates with current schedule of rates. The Government accepted the request. The Department concluded (October 2016) a revised agreement (with 2015-16 rates) with the agency for ₹5,385.91 crore, which was ₹1,331.91 crore (i.e. 32.85 *per cent*) higher than the original agreement value (2011-12 rates). Thus, the delay in shifting of villages in dam area led to increase in cost of work by ₹1,331.91 crore.

Government replied that the villages in working area were paid R&R benefits as per the R&R Policy 2005. But later they demanded benefits as per the new RFCT LARR Act 2013 and were reluctant to relocate to R&R centres. Government stated that in view of the importance of the project, it had approved for payment of additional gratuitous relief of ₹115.5 crore. This action led to improvement of progress of work and avoided further cost increase. The reply is contrary to the fact that the failure to relocate the villages in a timely manner not only hampered the progress of the work, but also led to increase in cost by ₹1,331.91 crore.

(v) Inter State issues relating to R&R: The Godavari Water Disputes Tribunal (GWDT) Award-1980 with regard to submergence of bordering villages, gave two options to the Odisha and Chhattisgarh (the then Madhya Pradesh) States – (a) to receive compensation from Project authorities for the submergence areas; or (b) the Odisha and Chhattisgarh States may opt for construction of embankments in their areas by Andhra Pradesh Government to

[15] Ramayyapeta, Mamidigondi, Devaragondi, Pydipaka, Thotagondi, Chegondapalli and Singanapalli villages in Polavaram Mandal of West Godavari District and Angaluru village of East Godavari District

prevent submergence. Ministry of Tribal Affairs (MoTA) had given R&R clearance (April 2007) for the project on the report given by the CWC that the GoAP had given assurance that it would bear the cost of embankments. The GoAP would take every care in the design and construction of protective bunds to ensure that the project would not affect any of the villages. The conditions stipulated by the MoTA inter alia included that the GoAP and the CWC should ensure that no submergence/ displacement of people takes place in the territories of Odisha and Chhattisgarh States. Audit observed that GoAP had not obtained any response from the Governments of Odisha and Chhattisgarh till December 2017 on conducting public hearings for construction of protective embankments.

As per the construction programme given in the DPR (2005), the Department was to commence the construction of protective embankments in 2011-12 and to complete by 2014-15. The Department till date (July 2017) had not even started the construction of protective embankments to prevent submergence of 4 border villages of Chhattisgarh and 8 border villages in Odisha States. Audit observed that the progress of construction of the embankments bordering Chhattisgarh and Odisha is not in tandem with the scheduled construction programme.

The Government replied that public hearings for construction of protective embankment are to be conducted by the concerned States and it was reminding these States frequently. It further replied that a Joint Committee of MoWR of GoI, WRD of GoAP, Chhattisgarh and Odisha had been formed. The Committee intends to resolve the inter-state issues. The Committee held its first meeting in June 2016 at New Delhi. In respect of Chhattisgarh state, it replied that necessary amount had been deposited for finalizing the submergence area in that State and the joint survey was in progress. The reply confirms audit contention.

2.1.10 Delay in finalization of Designs

Department awarded 23 works relating to head works and canal works under Polavaram project during 2004-06. In the agreements, the Department stipulated 36 months for completion of head works and 24 months for completion of canal works. As per these contract agreements, all the head works and the canal works were to be completed by July 2010 and March 2008, respectively. However, out of the 23 package works entrusted under the project, only one could be completed up to July 2017. The rest of 22 are yet to be completed despite time over run of 9 to 10 years. Audit observed that the deficiencies in finalization of designs and drawings contributed to the delays in completion of the project works, as discussed below:

(i) Spillway and ECRF dam: The CWC, as per the GWDT Award - 1980, had to decide the design parameters of Polavaram dam and its operation schedule. The Department, in the DPR 2005, proposed the spillway of Polavaram dam with a designed discharge capacity of 36 lakh cusecs (cubic feet per second). Department without waiting for the finalization of designs by CWC, awarded the works during March 2005 to August 2006. The Department, under EPC turnkey contract system, awarded the works of spillway and ECRF dam to two different contractors in two package works for ₹633.6 crore and ₹884 crore, respectively. The CWC, during scrutiny of DPR, directed the Department to work out the Probable Maximum Flood (PMF) as per IS Code 11223-1985. After further studies, the CWC/ Department worked out the PMF at 50 lakh cusecs and accordingly, increased (September 2006) the discharge capacity of spillway. Since the EPC contracts already awarded were fixed price contracts, the contracting agencies refused to take the additional cost arising due to increase in scope of work. **GoAP took nearly three years to take a decision in the matter and closed the contracts in August 2009. Progress of work at the time of closure of contracts in respect of Spillway and Earth Cum Rock Fill (ECRF) dam was 17.29 *per cent and* 1.68 *per cent* respectively**.

The Department in August 2009 invited tenders for a composite package for the balance work of Spill way and ECRF. It postponed the tenders due to non-finalization of estimates in respect of the Power house component. It invited bids again in June 2011, but cancelled again due to litigations and allegations regarding the eligibility of the lowest bidder. Department invited bids once again in April 2012 and awarded the work in March 2013 at a contract value of ₹4,054 crore. There was a cost escalation of ₹2,331.27 crore due to time overrun of three years as well as due to change in designs.

The agreement with the new contractor of Spill way and ECRF dam involved completion of the detailed survey, investigation and preparation of designs/ drawings. It also stipulated that the contractor had to complete these works in six months (i.e. by September 2013) and execution in 60 months (i.e. by March 2018). **Audit observed (June 2017) that even after four years, the Department had not finalized designs/drawings fully in respect of the dam works.** Audit called for the details of the designs[16] but was provided partial information which shows that it finalized the designs of radial gates in January/May 2017 and was yet to finalize designs of four blocks of the spillway. The remaining designs and drawings were either under departmental scrutiny or the contractors had not submitted to the Department. The delay in finalization of designs and drawings could lead to further delay in completion of work.

[16] The details regarding the number of designs required for the works, the number of designs approved, under examination and yet to be submitted by the contractor.

The Government replied that the original DPR was prepared considering maximum flood discharge of 36 lakh cusecs as was agreed to in the Interstate Agreements and submitted to CWC for approval. Meanwhile the Government took a decision to go ahead with the work and tenders were finalized. During scrutiny of the DPR, the CWC insisted that the dam safety should be checked for PMF of 50 lakh cusecs and finalized the design. The reply confirms the audit observation that entrustment of dam works without finalization of designs by CWC contributed to delay in their completion.

As regards delays in finalization of designs after re-award of works, Government replied that in the EPC contract system, the EPC agency was responsible for submission of detailed designs/drawings. It stated that approval of designs involved conduct of detailed surveys, investigations, studies, model studies, etc. and review by Dam Design Review Panel (DDRP). Government further stated that the design approving authorities sought various additional data which was to be attended by the EPC agency. Hence time lines were to be revised from time to time for the approval of designs. The reply is not in line with the fact that in the agreement concluded with the EPC agency, the Department stipulated that the designs were to be finalized by September 2013. But, the same were not finalized even as of July 2017.

(ii) Canal works:

(a) Department initially estimated discharge capacity of Right Main Canal (RMC) as 330.20 cumecs[17]. The GoAP had in July 2004 accorded administrative approval for RMC with a discharge of 396.43 cumecs. Department in October 2004 increased the discharge capacity to 497.299 cumecs. Department initially estimated the discharge capacity of LMC as 212.10 cumecs. The GoAP accorded (September 2004) administrative approval with a discharge of 396.43 cumecs. The Department subsequently increased the discharge capacity of Left Main Canal (LMC) to 497.277 cumecs. However, there was no increase in the irrigation potential of 7.20 lakh acres targeted under the project even after increasing the capacities of LMC and RMC.

Government replied that the capacity was increased mainly to take care of rush supplies due to erratic rainfall, drinking water aspect and upland areas irrigation. However, audit observed that the increased capacities were not part of the project proposals contemplated in the DPR.

(b) The Department in the DPR submitted to CWC in 2005, stated that it had finalized the alignments for the right and the left main canals. It also stated that it had carried out detailed final survey for the entire canal length and the

[17] Cubic meters per second.

structures enroute and had prepared detailed designs and estimates. Audit observed that despite this, EPC contracts entered into by the Department allowed the EPC agencies to conduct detailed survey and investigations and propose alternative alignments/designs. This led to changes in canal alignments during the execution of works. Audit observed that total variation in length of right main canal and left main canals was 9.672 Km and 5.20 Km respectively. Audit observed that in the DPR, the Department proposed 478 structures[18] on the canals. However, the number of structures to be built increased to 703 during execution.

Regarding variations in lengths of canals, Government replied that it was due to approval of revised alignments keeping in view safety of canals. The reply is not acceptable as the Department was to take into account these issues in the planning stage itself.

(c) As per the agreement conditions, the contractors of canal works were required to complete the preparation of designs and drawings within six months i.e., by April 2005 for RMC and September 2006 for LMC. Audit observed that there were abnormal delays in finalization of the alignments/ designs in respect of the canal sections and the structures en-route the canals. The delays ranged between 3 months to 10 years in finalization of canal alignments. As regards finalization of designs of structures, as per the partial information furnished by the Department, there were delays ranging between 10 months to 12 years in approval of designs in respect of 139 out of 251 structures of RMC. In respect of LMC, there were delays ranging from 2 to 12 years in finalization of 123 out of 452 designs. **Even as of July 2017, out of a total of 703 designs of both the canals 233 designs were yet to be finalized.** Out of which, the contractors were yet to submit 102 designs as tabulated in Table 2.6:

Table 2.6 - Progress of the designs approval of the canal structures

Canal	Total no. of designs of structures	Designs submitted by the contractors	Designs approved by the Department	Designs under scrutiny with the Department	Designs yet to be submitted by the contractors
RMC	251	240	238	2	11*
LMC	452	361	232	129	91
Total	**703**	**601**	**470**	**131**	**102**

* These include nine designs returned to the contractors by the department and the contractors were yet to resubmit them.

(***Source***: Records of the Department)

[18] These are Cross Masonry and Cross Drainage (CM&CD) works which inter alia include cross regulators, offtake sluices, aqueducts, under tunnels, super passages and bridges.

The Department awarded the works of connectivities to Right and Left Main Canals in six packages[19] to contractors in March 2005 under EPC contract system. As per the agreement conditions, the contractors were required to complete the preparation of designs/drawings within two/three months (i.e. by May/June 2005) for Right Side and Left Side Connectivities, respectively. Audit observed that even after 12 years of commencement of works, the Department could not ensure the approval of the designs. **Audit observed that in connectivities works, the delays in approval of designs ranged from 4 to 138 months. Out of total 45 designs, 12 designs were yet to be approved as on July 2017**. The overall progress in respect of connectivities work was 55 *per cent.*

Regarding delays in finalization of designs and drawings of canals, Government replied that detailed field data was required for their finalization and the contracting agencies had submitted the designs/drawings in piece meal manner. It further added that the EPC contractors had also to attend to the remarks of the design approving authorities. The reply is not tenable as the canal agreements stipulated that designs/drawings were to be finalized in six months.

With regard to delay in approval of designs (connectivities work), the Government replied that delays were due to involvement of Forest clearances for tunnel works. The reply is contrary to the fact that the MoEF had accorded Forest clearance for the project in the year 2010 itself. But, the Department failed to finalize designs even after seven years since then.

(d) As per the agreement conditions of connectivities, RMC and LMC packages, the EPC contractors were to obtain timely clearances. The contractors had to obtain the clearances from the concerned authorities where the canal is crossing Highways/other Roads, Railway lines, Oil/gas/water pipe lines, etc. Audit observed that the contractors had not obtained timely clearance from the Departments/agencies concerned. They could not complete the shifting of utilities despite time over run of nine years. As of July 2017, clearance for two Highway crossings, two Railway crossings, two oil/gas crossings and three crossings of electrical lines were pending from the concerned departments.

Government replied that the works estimates had provided for construction of four lane bridges, but the Highways authorities later insisted for construction of wider bridges. Hence, it had issued orders to delete the National Highway (NH) crossings from the agreements and proposed to award the works to other agencies by calling tenders which led to delays in their completion. The reply

[19] Three packages of Right Side Connectivities (package Nos. 62, 63 and 64) and three packages of Left Side Connectivities (package Nos. 65, 66 and 67).

does not justify the abnormal delay of nine years. Further, the reply was silent on the delays in shifting of other public utilities.

Audit observed that in all the above cases the Department could not resolve the design issues during the contract period. Audit observed that the EPC contractors attributed the delays to the Department and insisted for payments with latest rates citing delays in land acquisition, increases in quantities. It was further noticed that the though the department awarded the contracts on firm/fixed price, the contractor represented multiple times for revision of agreement rates. Some of the contractors either slowed down the works or suspended the works all together.

Audit pointed out that the award of works without finalizing designs led to delay in execution and contributed to increase in the cost of Spillway and ECRF dam. Similarly, award of works without finalizing alignments and detailed designs of the canals and connectivities led to delay in execution and contributed to increase in the cost of works.

2.1.11 Execution of works

Department in its DPR 2005 proposed to complete head works in 12 years and the canal system in 15 years and realize the intended irrigation potential by 15th year. It awarded all the works during 2004-2006 in 23 packages[20].

2.1.11.1 Head Works and its connectivities

The head works consists of the works relating to construction of Dam (Earth cum Rock Fill (ECRF) Dam and Spillway) and its connectivities (i.e., the linkages between the dam and canals).

The Department (March 2005 and August 2006) awarded the works relating to the Spillway and ECRF dam to two contractors. Due to changes in designs, etc., the Department had pre-closed (August 2009) the agreements with the contractors on mutual consent. As per the terms of pre-closure, a high power committee had to be constituted by the GoAP to settle the accounts of the contracts within 120 days from the date of closure of contract. The two contractors had then submitted claims for ₹335.62 crore and ₹246.61 crore in September 2009. The State Level Standing Committee appointed by the State Government in January 2011 agreed to pay ₹6.96 crore and ₹12.43 crore as full and final settlement of accounts and claims of the contractors. Audit observed that even after seven years, the department has not settled the accounts of the contractors.

[20] Initially the total works awarded were 23 in number. Due to pre-closure of two contracts and awarding of them as a single contract, the total number of contracts now stands at 22.

The Department replied that the contractors had approached the Honorable High Court AP which directed (April 2015) that the department has to constitute a High Power Committee under the chairmanship of retired Supreme Court Judge to settle the accounts and claims of the contractors. Audit observed that the Government is yet to take a decision on the department's request for permission to file Inter court Appeal in the High Court against the judgment of the High court.

Government replied that the settlement issues were not yet finalized.

2.1.11.2 Violation in Agreement clauses

Department invited the bids for the Spillway and ECRF Dam work (as a composite package including foundations of power house) and awarded the work to M/s Transstroy - JSC EC UES (Joint Venture) in March 2013 for a contract value ₹4,054 crore. As per the agreement, the contractor was to complete the works by March 2018.

(i) Revision of rates during agreement period: Audit observed that the contract for head works was concluded with the contractor after inviting competitive tenders. As per the tender/agreement conditions, the contract was for a firm price and was not subject to any claims on any ground whatsoever of the contractor. The agreement also stipulated that no claim for compensation on account of delays/hindrances to work from any cause whatsoever would be admissible. In the instant case, the agreement period was up to March 2018. Audit, however, observed that the Department increased (October 2016) the agreement value by ₹1,331.91 crore on the ground of delays in land acquisition/R&R (as stated in Paragraph 2.1.9.2 (iv)). The increase in contract value during the currency of the original agreement period was violative of contract conditions and against the spirit of competitive bidding since similar benefit was not offered to the other prospective bidders.

(ii) Collection of performance security: As per the agreement conditions of a contract, the contractor had to provide the Bank Guarantee/Demand Drafts of five *per cent* of the agreement value to the Department towards performance security. Audit observed that though the Department had revised the agreement value from ₹4,054 crore to ₹5,385.91 crore, it did not obtain additional performance security of ₹66.59 crore (on the increased agreement value of ₹1,331.91 crore) from the contractor. Thus, Government interest was not adequately safeguarded against any default by the contractor.

(iii) Procurement of Steel: As per the agreement conditions, the contractor had to make his own arrangements for procurement of tested steel required for the work. Audit observed that the Department paid (June 2017) an amount of

₹25.37 crore directly to suppliers for supply of steel for the work based on the request received from the contractor. Such payments were against the agreement conditions and was undue benefit to the contractor.

(iv) Payment of Customs Duty by the Department: The agreement conditions stipulated that the contractor shall make his own arrangements to equip himself with all machinery/tools and plants for speedy and proper execution of the work and the Department does not undertake responsibility towards their supply. The agreement did not have any clause for payment of Customs Duty by the Department on the machinery/equipment imported by contractor. The Government, contrary to the agreement conditions had permitted (May 2017) for release of ₹7.50 crore towards payment of Customs Duty. The Customs Duty pertained to concreting equipment imported by the contractor and was recoverable from the subsequent Running Account (RA) bills. The Department had paid (June 2017) Customs Duty of ₹5.22 crore. Payment of Customs Duty on behalf of the contractor was violative of the contract conditions and undue benefit to contractor.

(v) Payment towards land cost of dump area: As per the agreement conditions, the responsibility for arranging the land for borrow area and dumping areas rests with the contractor. The Department would not make any separate payment for procurement or otherwise. The contractor's quoted price was inclusive of land cost and the contractor shall hand over the land to the Department after completion of work. **Audit observed that the Department acquired land to the extent of 203.74 acres at a cost of ₹32.66 crore for dumping the excavated earth contrary to agreement conditions**.

(vi) Deferment of recovery of mobilization advance: As per the agreement conditions, the contractor was eligible for an interest bearing mobilization advance (MA) of 10 *per cent* of agreement value. Accordingly, the Department had paid (April 2013 to May 2017) a total MA of ₹404.86 crore to the contractor. As per the agreement conditions, the recovery of MA along with interest shall commence when the total value of work reaches 10 *per cent* of agreement value. Considering this agreement clause, the recovery was to commence from the Running Account (RA) Bill No.21 onwards. The Government, based on the requests of the contractor issued directions (June 2016) for postponement of commencement of recovery of MA and interest initially up to 25th RA bill. Government again postponed it in October 2016 and March 2017 extending the relaxations up to 32nd RA bill. Recently, in May 2017, the contractor again requested the Department for further deferment of recovery of MA and interest for another three months. Audit observed that so far, 34 RA bills were paid (June 2017) to the contractor for the work done amounting to ₹1,404.59 crore which works out to 26 *per cent* of the contract value. **As of June 2017, the Department was to recover a**

total principal amount of ₹187.05 crore and the accrued interest on MA of ₹109.28 crore. Audit pointed out that the deferment of recovery of MA was contrary to agreement conditions and conferred undue benefit to contractor.

(vii) Payment of interest free mobilization advance to the sub-contractor: The contractor, during the execution of the work, in December 2015, had sub-let a part of work related to construction of diaphragm wall costing ₹422.20 crore to another agency. In the agreement concluded with the main contractor, there was no provision of payment of mobilization advance to sub-contractors. The main contractor, in January 2017, expressed his inability to make advance payments to the sub-contractor due to severe financial crisis. The Government in February 2017 permitted the Department to make payment of ₹95 crore directly to the sub-contractor towards mobilization and machinery advance by granting exemption to contract conditions. The Department paid the amount in March 2017. **Audit observed that payment of MA to the sub-contractor directly that too interest free was an undue benefit to contractor/sub-contractor.**

As per the original agreement with the main contractor, the MA paid was recoverable with interest at Government borrowing rate (11 *per cent* per annum applied in this case). Audit observed that the MA to the sub-contractor was interest free and thus it was an undue benefit to the contractor. The interest foregone as of June 2017 worked out to ₹2.87 crore (considering the interest rate of 11 *per cent*).

With regard to the progress of construction, audit observed that only 31 *per cent* work was completed by July 2017 against 76 *per cent* work to be completed as per the milestone programme of the Department.

The Government replied that the above relaxations were given to expedite the Project. The reply further stated that the Government relaxed the relevant clauses of the agreement based on the request of the agency to overcome cash flow problems in the interest of smooth progress of the work and that there was no undue benefit to the contractor.

The fact remains that there was slow progress of work (31 *per cent)* despite relaxation to the agreement conditions given by the Government of Andhra Pradesh. Government needs to withdraw the concessions extended to the contractor, effect necessary recoveries and ensure that the work is executed strictly as per the agreement conditions.

2.1.11.3 Left and Right Main Canals

The Department awarded LMC works (***Appendix 2.1 (i)***) during March 2005 - March 2006 to be completed in 24 months (i.e. by March 2007 – March 2008).

The Department could not complete any of the eight packages in all respects. The overall progress of LMC was only 65 *per cent* till July 2017.

The Department awarded RMC works (***Appendix 2.1 (ii)***) in October 2004 with stipulation to complete by October 2006. The Department had yet to complete six packages. The overall progress of RMC was 91 *per cent* as of July 2017.

(i) Payments for pipeline crossings and shifting of electrical lines: As per the contract conditions of the RMC and LMC Packages, if the canal system is crossing HPCL or GAIL[21] pipelines or any other pipelines, the contractor shall provide suitable crossing in consultation with the concerned authorities. The contractor was to provide these crossings either by himself or get them executed by the concerned authorities duly depositing the requisite amount. The contract price was deemed to include the cost of such crossings. The contractors were also required to bear the cost of shifting of electrical lines and damages occurred to public utilities.

Audit observed that the Department had paid an amount of ₹38.12 crore as detailed in Table - 2.7 below, on behalf of the contractors towards shifting of utilities on the canals:

Table 2.7 – Details of payments made by the Department for shifting of utilities

Pkg. no.	Agency to which the amount was paid	Purpose	Month of payment	Amount paid by department (₹ in crore)
RMC-2	GAIL	Pipeline crossing	May 2015	6.9
	HPCL	Pipeline crossing	May 2015	7.21
	APSPDCL	Electrical line shifting	May 2015	0.16
RMC-4	GAIL	Pipe line crossing	July 2015	5.48
RMC-5	GAIL	Pipeline crossing	June 2015	7.67
RMC-6	APSPDCL	Electrical line shifting	July/August 2015	0.93
	RWS Department	Restoration of damaged pipeline	August 2015/ March 2016	0.46
RMC-7	RWS Department	Restoration of damaged pipeline	October 2015	0.12
	APSPDCL	Shifting of electrical line	August 2016	0.07
LMC-1	GAIL	Shifting of LPG pipeline	June 2017	5.52
	HPCL	HPCL pipe line crossing at Km 18.537	November 2015	3.6
		Total		**38.12**

GAIL - M/s Gas Authority of India Ltd.; **HPCL -** M/s Hindustan Petroleum Corporation Ltd.; **APSPDCL -** Southern Power Distribution Company of AP Ltd.; **RWS -** Rural Water Supply

*(**Source:** Records of the Department)*

[21] **HPCL -** M/s Hindustan Petroleum Corporation Ltd.; **GAIL -** M/s Gas Authority of India Ltd.

The amount of ₹38.12 crore was the liability of the contractors. However, the Department paid the amount on behalf of contractors. The Department had not recovered the amount from the contractor as on November 2017. The reasons for non-recovery were not on record.

Government replied that the amount on shifting of above utilities would be recovered from the respective EPC contracting agencies.

(ii) Levy of liquidated damages: The EPC agreements concluded with the contractors provided for levy of liquidated damages for the delays attributable to the contractors. Liquidated damages were leviable at the rate of one-twentieth of one *per cent* of the respective milestone financial programme value per calendar day or part of the delay for the period of delays subject to a maximum of 10 *per cent* of the contract value. Audit observed that the contractors had not completed the works within the contract period in any of the packages. **In three packages of RMC (package nos. 2, 5 & 6 of RMC) the contractors stopped the works for a period of three to six years despite availability of work front.** The Department failed to levy liquidated damages on the three contractors.

Government replied that it had considered all issues related to hampering of work and EOT had been granted from time to time.

However, granting of EOT without levying any penalty for the delay on the part of the contractors tantamount to relaxation of agreement conditions.

2.1.11.4 Distributary network

Distributary network is an essential component in any irrigation project to deliver irrigation water to the fields of farmers. The Polavaram project contemplates creation of irrigation potential of 7.20 lakh acres. Out of this, 3.92 lakh acres was being covered under Pushkara and Tadipudi lift irrigation schemes taken up to derive early benefits from Polavaram project. Audit observed that the Department was yet to take up the works of distributary network for the remaining 3.28 lakh acres.

Government replied that the entire canal network of these above lift irrigation schemes would become distributary network of the Polavaram Project. For the remaining ayacut, the GoAP and PPA were considering establishing of Micro Irrigation System (piped network) in place of open channel system due to increase in land cost. Audit however observed that micro irrigation was not part of the project proposals contemplated in the DPR. Further, as per the target dates, the works of Polavaram dam and canals were scheduled for completion by June 2019. To derive optimal benefits from the project, it was essential to develop distributary network by the time the project works are completed.

2.1.11.5 Quality Control

Assurance on the quality of works is a critical element in execution of a large scale project like Polavaram project. The EPC agreements concluded with the contractors contained provisions relating to Quality Control (QC) by the EPC contractors. The responsibility of quality assurance was with the QC wing of WRD.

(i) Third party quality control mechanism: After declaration of Polavaram project as a National Project, the PPA had advised (July 2016) the Department to have Quality Control Mechanisms through a third party. The PPA proposed to establish a third party quality control setup for Head works, Left main canal and Right main canal of Polavaram Project. The quality control mechanism inter alia provides for – i) utilization of existing labs at Head works, LMC and RMC, ii) training of candidates engaged in quality assurance by the Central Soil and Material Research Station (CSMRS), New Delhi in Quality control test procedure, recording, compiling and reporting of results, iii) entrustment of overall supervision and examination of the test results to CSMRS etc. **However, the Department had not engaged any third party agency for quality assurance, as of July 2017**.

Government replied that MoU between PPA and CSRMS is under process.

(ii) Quality Audit: As per conditions of agreement concluded (2013) with the EPC agency in respect of the spillway and ECRF dam, the Engineer-in-Charge/ Project Management Consultant (PMC) would conduct Quality Audit departmentally or by other organization. **However, the Department had not arranged for any such quality audit**. The reasons were not on record. The Polavaram Project Authority (PPA), constituted by GoI to oversee the implementation of the project, had engaged (July 2017) the CSMRS, New Delhi for conducting quality audit in respect of dam works. The overall progress of the Project was 50 *per cent* by the time of appointment of CSMRS (July 2017).

The Government replied that action was being taken for concluding MoU with CSMRS authorities for quality audit.

2.1.12 Monitoring mechanism

2.1.12.1 Monitoring of R&R activities

(i) State and Project Level Monitoring: As per the State's R&R Policy, the State Level Monitoring Committee should meet once in three months to review and monitor progress of R&R implementation in various projects in the State. Similarly, the R&R policy require that the Project Level Monitoring Committee meet at least once in two months. **However, Audit observed that**

only six meetings were conducted by the State Level Committee as against stipulated 24 meetings during the period 2012-2017.

Government replied that after introduction of the RFCT LARR Act 2013, it had constituted a State Level Monitoring Committee in February 2015 and the Committee had met twice in July 2017. Regarding Project Level Monitoring, the Government has not furnished any reply.

(ii) Setting up of LA and R&R Authorities: As per Section 51 of the RFCT LARR Act 2013, the Department had to constitute 'Land Acquisition, Rehabilitation and Resettlement Authorities' for speedy disposal of disputes relating to LA, compensation and R&R. The GoAP appointed (April 2016) 'Land Acquisition, Rehabilitation and Resettlement Authorities' in three regions of the State at Visakhapatnam, Vijayawada and Tirupathi. No evidence, i.e., records regarding the functioning of these authorities were made available to audit by R&R Commissionerate to show that these Authorities started functioning.

Government did not furnish specific replies to the audit observations. It did not furnish records to provide assurance that these authorities started functioning.

(iii) Ombudsman for R&R: As per R&R Policy, the Government shall appoint an Ombudsman for time-bound disposal of grievances of stake holders, arising out of the R&R Policy implementation. The R&R Commissioner did not furnish any record of such appointment.

Government replied that efforts were made for appointment of Ombudsman, but did not appoint any officer till January 2014. It further stated that after the RFCT LARR Act 2013, appointment of Ombudsman was not considered as three LA, R&R Authorities had been established to discharge functions of Judicial Court in nature as that of Ombudsman.

The fact remains that Government did not appoint ombudsman till 2014. Further, the Government/R&R Commissioner did not furnish any record to show that the LA, R&R Authorities were functioning.

(iv) Social Audit: As per the Section 44 and 45 of the RFCT LARR Act 2013, the Department was to arrange to conduct social audit in respect of R&R centres established for the benefit of PDFs. This was intended to ascertain the post-accommodation grievances of the PDFs, so that the respective departments address them. The R&R Commissioner had not furnished the details of any social audits conducted in respect of 20 R&R centres where the Department had relocated the PDFs. During the site visit with the departmental staff, Audit found that there were several sanitation issues in many R&R centres which needed to be resolved.

Government replied that the District Collectors were requested to conduct post implementation Social Audit in consultation with the Gram Sabha in rural areas and municipality in urban areas.

2.1.12.2 Monitoring of compliance with Environmental/Forest clearance conditions

(i) The GoAP had formed (September 2009) a Committee for independently monitoring the implementation of Forest clearance conditions given by GoI. Audit observed that Committee held only two meetings (in May 2013 and July 2017) in the last seven years.

Government had not given any specific reply in this regard.

(ii) While according Environmental Clearance (October 2005) and Forest Clearance (In-principle approval in December 2008 and final approval in July 2010) for Polavaram project, the MoEF had stipulated certain conditions to the Department. Audit observed that there has been little progress in implementing these conditions.

- As per the conditions of Forest Clearance (December 2008), the Project area shall be demarcated on ground at the Project cost using four feet high concrete pillars inscribed with serial numbers. Audit observed that though the final approval of forest clearance was granted by GoI in July 2010, the demarcation was not completed even as of July 2017. **Out of 3,229 pillars to be erected for demarcation of the CA area, only 1,490 RCC pillars were erected (May 2017) leaving a balance of 1,739 (54 *per cent)* pillars yet to be erected**.

Government replied that the user agency has assured to complete the work by the end of April 2018.

- As per the Environmental Clearance (EC) conditions, the Department was to implement Catchment Area Treatment Plan (CAT) in 34,500 hectares of area. The CAT involved Biological/Vegetative Treatment (afforestation/re-vegetation, social forestry and vegetative barriers) and Engineering Treatment (construction of gully plugs, rockfill dams, percolation tanks, check dams and contour trenches). For implementing CAT, the WRD had deposited (August 2009) an amount of ₹21.05 crore with the State Forest Department. **Audit observed that there was no progress in implementation of Vegetative Treatment as of March 2017. In respect**

of Engineering Treatment, the progress was only 6.44 *per cent* as of July 2017.

Government replied that CAT was delayed due to transfer of records from Bhadrachalam to Kakinada forest Division. It also stated that the Forest Department was requested to take urgent action and ensure that the CAT plan is implemented as per time schedule.

2.1.13 Conclusion

Polavaram irrigation project, taken up with the objectives of providing irrigation benefits to 7.20 lakh acres, diversion of 80 thousand million cubic feet (TMC) water to Krishna river, supply of industrial water to Visakhapatnam town and supply of drinking water to villages and towns en-route, was scheduled to be completed by June 2019.

Audit findings indicate that completion of the project by June 2019 is at huge risk because of the following reasons:

Department's ability to enforce the contract conditions to complete the works on time was weak. Progress of execution of Spill Way and ECRF dam works, as of July 2017, was only 31 *per cent.* Department extended a number of concessions to the contractors in violation of contract conditions. Department's enforcement of contract conditions was also weak in respect of works related to connectivities, Left Main Canal and Right Main Canal. As of July 2017, the progress of works was 55 *per cent*, 65 *per cent*, and 91 *per cent*, respectively. Department extended a number of concessions to contractors for shifting of utilities on the canals. Department is yet to take up the works of balance distributary network under the project.

Department's inability to complete the design parameters of the Spillway and ECRF dam works in all respects before the award of contracts contributed to time overrun and cost overrun. Alignments for canals and the designs stated to be final and complete in the DPR proved to be incorrect. The contract conditions allowed the EPC agencies to survey and propose alternative alignments/designs.

Department's inability to identify the extent of land that had to be acquired had an adverse effect on the project time schedule and on the expenditure. GoAP, as of July 2017, was yet to acquire 36,009 acres that would be submerged.

Department did not clearly identify the number of project affected villages and families and did not adequately plan the required R&R measures and progress of works in respect of R&R. GoAP, as of July 2017, was yet to acquire 26,830 acres of land for this purpose. GoAP was yet to resolve the issue of submergence of bordering villages with the Governments of Odisha and Chhattisgarh.

Polavaram is a National Project. GoAP would execute the works with the funds from the State budget. GoI, on receipt of claims, would reimburse the expenditure incurred on irrigation component to GoAP through Polavaram Project Authority (PPA). Audit observed that as of July 2017, GoAP has not submitted the details of expenditure of ₹1,407.64 crore on land acquisition and R&R. Audit observed that the Department does not have a system to promptly capture, classify, consolidate and report the details of expenditure on the project. This problem is more pronounced in respect of the expenditure on land acquisition, payment of compensation and rehabilitation works.

Audit observed that the parties (GoI and GoAP) had not signed any Memorandum of Understanding specifying the role to be played by each party. The parties had not laid down the procedures to be followed for submission of claims to the PPA and the methodology of checking the claims and reimbursement. The parties had not yet fully streamlined the reimbursement process.

2.1.14 Recommendations

Audit recommends that:

- ***The Department should improve its ability to enforce the contract conditions in the execution of project works to avoid any further time overrun and cost overrun.***

- ***The Department should make concerted efforts to complete the process of land acquisition in submergence areas and R&R activities synchronizing with completion of the project works so as to make use of the project immediately on its completion.***

- ***GoAP may take steps to resolve the submergence issues with the Governments of Odisha and Chhattisgarh and take steps for timely construction of protective embankments to prevent submergence in those States.***

- ***The Department should take immediate steps to identify the village wise command area to be developed under the project and take up the works of distributary network.***

- ***The Department should immediately institute a system to promptly capture, classify and consolidate the details of expenditure on the project, particularly for land acquisition and R&R activities.***

- ***Government should expedite conclusion of Memorandum of Understanding with the Ministry of Water Resources/ Polavaram Project Authority, so as to streamline the process of getting the Central assistance in a timely manner. It should provide for procedures and timeframes to be followed for submission of claims to the PPA, the methodology of checking the claims, and for reimbursement.***

Information Technology, Electronics and Communications Department

2.2 Development of Information Technology and Communication Infrastructure by the Information, Technology, Electronics and Communications Department

Executive Summary

The Government's Information Technology (IT) Policy aimed at taking various measures to facilitate the establishment of IT units in the State so as to achieve rapid growth of IT exports, domestic turnover, IT Investments and creating employment opportunities and providing a strong communication backbone in the State. Audit observed that the Department did not prepare any long term strategic plan or annual action plans to achieve the goals stipulated by Government in the IT/Electronics Policies.

The State's IT policies envisaged allotment of Government land to the IT units to encourage IT industry in the State. The process of recommending units by the Consultative Committee on IT Industry (CCITI) for land allotments was deficient. There was no uniformity in the employment generation targets stipulated in the MoUs concluded with the units that were allotted lands.

Out of the 25 IT units that were allotted lands by the Department during 2006 to 2012, two allotments were cancelled, only 14 units had commenced operations, eight projects were still under construction despite time over run of 22 months to 101 months and one unit did not commence construction as of July 2017. As against the total employment target of 10809 as per MoUs, the units created only 4326 jobs. Monitoring by the Department on implementation of IT projects was poor.

Out of the total space of 79,530 Sft. created in the three Incubation Centres at Visakhapatnam, Tirupati and Kakinada, the Department could enter into MoUs with Incubators for only 22,256 Sft. Out of the remaining space, the Department was utilizing 33,500 Sft. for other purposes and the balance 23,774 Sft. was unutilized. The Department was not monitoring the performance of the Incubators and it did not even have the details of start-up units that came up in the Incubation Centres. There was no assurance that the intended objective of promoting start-up companies had been achieved.

2.2.1 Introduction

The Information Technology, Electronics & Communication Department plays a crucial role in policy formulation in Information Technology (IT) sector, managing various e-governance initiatives, promoting investments in IT sector, facilitating growth of IT enabled services (ITES) and providing a strong communication backbone in the State.

The Government aimed at taking various measures to facilitate the establishment of IT and ITES units in the state so as to contribute to the economic development through rapid growth of IT exports, domestic turnover, IT Investments and creating employment opportunities.

Before bifurcation (June 2014) of the erstwhile combined Andhra Pradesh State, two policies viz., Information and Communication Technology (ICT) Policy - 2010-15 and Electronic Hardware (EH) Policy – 2012-17 were in operation. Consequent to the State bifurcation, the Government in the present AP State pronounced (August/ September 2014) a new set of IT Polices[22] for the period 2014-20. These new Policies superseded the earlier policies.

2.2.2 Organizational setup

The Information Technology, Electronics and Communications (ITE&C) Department headed by a Principal Secretary, is responsible for promoting development of ITE&C Infrastructure in the State. The Department is supported by M/s Andhra Pradesh Technology Services (APTS) Limited (a Public Sector Undertaking, functioning under the Department). APTS acts as a nodal agency for procurement of IT related equipment and services on behalf of the Department. Another PSU, i.e., the AP Industrial Infrastructure Corporation Limited (APIIC) is the nodal agency for allotment of land to IT units on recommendation of the Department.

2.2.3 Scope and Methodology of Audit

Audit conducted a Performance Audit (PA) on "Development of Information Technology and Communication Infrastructure by ITE&C Department" from February to August 2017. Audit examined implementation of the following ITE&C infrastructure development initiatives during the five year period from 2012-13 to 2016-17:

1) **Allotment of Government lands** for setting up of IT units;
2) **Development of Incubation Centres** aimed at incubating and nurturing Start-up IT units.

[22] (1) APIT Policy 2014-20; (2) AP Electronics Policy 2014-20; and (3) AP Innovation and Start up Policy 2014-20

3) **AP State Wide Area Network (APSWAN)** which connects the State Capital (State Headquarters – SHQ) to all District Headquarters (DHQs) and all DHQs with Mandal Headquarters.

The performance audit involved examination of records in the Secretariat, APIIC, APTS and AP Electronics and Information Technology Agency (APEITA)[23], Visakhapatnam. An Entry Conference with the Principal Secretary of ITE&C Department was held in June 2017 to discuss the audit objectives, scope and methodology. Audit conducted Exit Conference with the Principal Secretary in December 2017. Audit conclusions were drawn after taking into account the replies given by the Government/ Department.

2.2.4 Audit Objectives

The objective of this Performance Audit was to assess:

(i) Whether the formulation of selected initiatives was comprehensive and in accordance with objectives and policies of the Government;

(ii) Whether the selected initiatives/ projects and facilities were implemented as planned and those under implementation are progressing as scheduled;

(iii) Whether the completed initiatives/ projects and facilities are serving the intended objectives and whether there is a plan in place to accommodate future needs ; and

(iv) Whether the Department has developed adequate infrastructure, on its own or through other organizations, to cater to the needs of the other Departments.

2.2.5 Audit Criteria

Audit used the following sources of audit criteria for conducting this Performance Audit :

(i) ICT Policy 2005-10; ICT policy 2010-15; the new AP IT Policy 2014-20; EH policy 2012-17; the new AP Electronics Policy 2014-20 and AP Innovation and Start up Policy 2014-20 of Government of AP;

(ii) Orders/Guidelines issued by GoAP on provision/allotment of land;

(iii) Terms and conditions of MoUs/Agreements of projects concerned entered between the Department and other agencies; and

(iv) Feasibility Reports and Detailed Project Reports of project initiatives.

The audit findings are discussed in the subsequent paragraphs.

[23] A society registered under AP Societies Registration Act, 2001.

Audit findings

2.2.6 Absence of Strategic Plans and Annual Action Plans

The stated objectives of the new IT Policy 2014-20 and Electronics Policy 2014-20, among other things, were to achieve the following in the next five years:

(i) to attract investments of US $ 2 billion in IT and US $ 5 billion in electronics manufacturing;

(ii) to achieve a five *per cent* share in the national software exports; and

(iii) to create an additional direct employment of 0.5 million.

To achieve the goals stipulated by Government in the IT Policies, it was essential that the Department prepares and implements long term and short term action plans to have a focused approach on the various initiatives. Audit, however, observed that the Department had not prepared any long term strategic plan or annual action plans. In the absence of such strategic/annual action plans, there was no assurance that the Department would be able to achieve the goals of the IT Policy within the stipulated period of five years.

The Government did not furnish any reply on this issue.

Further, there were deficiencies in implementation of the initiatives taken up under these Policies as discussed in the subsequent paragraphs.

2.2.7 Allotment of land to IT units

The earlier and new IT policies envisaged allotment of Government land to the IT/EH industry to encourage IT industry in the State. Allotment of land was subject to fulfillment of eligibility criteria and payment of land and development costs by IT units.

The Government constituted a Consultative Committee on IT Industry (CCITI) under the Chairmanship of Secretary/Principal Secretary of ITE&C Department. The CCITI consisted of representatives of IT industry and other stake holders including APIIC as its members. The role of the Committee was to examine the applications received and recommend for allotment of land to eligible IT units. Based on the recommendations of CCITI, the APIIC, being nodal agency would allot lands to the units. The ITE&C Department would enter into Memorandum of Understanding (MoU) with the IT unit and forwards its copy to the APIIC.

The Department/APIIC allotted lands to 25 units under ICT Policy 2005-10 (23 units) and ICT Policy 2010-15 (2 units) and to 17 units under IT Policy 2014-20.

2.2.7.1 Process of recommendation by CCITI for allotment of land under IT Policy 2014-20

After announcement of the new IT Policy 2014-20, the Department received 83 applications from IT units for allotment of lands. Out of these, the CCITI recommended 44 units, against which APIIC could allot lands to 17 units only. 24 units did not file applications with APIIC for land allotment and one unit had withdrawn application. In case of two units, allotments were cancelled due to non-payment of land cost by them. Audit observed the following deficiencies in the land allotment process:

Existing employment criteria: As per the IT Policy 2014-20, an IT unit should have existing employee strength of minimum 100 to qualify for allotment of land.

- Audit observed that in five[24] cases, the IT Units which were recommended by CCITI did not have existing employee strength of 100. APIIC allotted land to one such unit[25] which was not entitled as per criteria.

- In case of another unit[26], the CCITI in its meeting (June 2015) had rejected the application based on the ground that it was not into IT/ITES activities. However, in the next meeting (November 2015), the CCITI recommended for land allotment to same unit without any recorded justification. The Profit and Loss (P&L) Account for the years 2012-13 and 2013-14 furnished by the unit showed zero revenue from operations in both the years. Audit observed that the unit had claimed to have 102 existing employees on its rolls. However, its P&L Accounts showed that the total expenses (and an equal amount of loss) during the years 2012-13 and 2013-14 were ₹2.95 lakh and ₹6.44 lakh, respectively. APIIC was yet to allot land to the unit as of March 2017.

Government replied (November 2017) that in case of two units, CCTI recommended land even though their existing employees were less than 100, to promote Tirupati as an investment destination. The reply is not convincing. If Government intended to promote IT investments in Tirupati, it should have relaxed the existing employment criteria in the Policy itself. This would have given equal opportunity to all such smaller units. Audit observed that the CCITI had rejected applications of some units proposed in Tirupati on the

[24] (1) M/s Naina Power Pvt. Ltd., (2) People Link Corporate Solutions Pvt. Ltd., (3) M/s Davis Software Solutions Pvt. Ltd., (4) M/s Garuda Engineering Solutions, (5) M/s Corsen Donk Consultants Pvt. Ltd.

[25] M/s Naina Power Pvt. Ltd.

[26] M/s Mudunuru Holdings Pvt. Ltd.

ground that they were not fulfilling 100 employee criteria. Government did not furnish convincing replies in respect of the remaining units.

2.2.7.2 Stipulation of employment generation norms while allotting lands

The objective of allotting lands to IT units was to encourage investments in IT sector and to generate employment. But, the ICT Policy 2005-10 had not stipulated the minimum employment to be created by the IT units to which lands were allotted. The Policy stipulated that the units would be eligible to claim concession on the land cost at the rate of ₹ 20,000 per job created or the cost of the land (excluding development charges) whichever was less subject to a ceiling of 0.30 acre of land for every 100 jobs created.

However, in the MoUs concluded with the units, the ITE&C Department incorporated a clause regarding the minimum employment to be generated by the IT units. Audit observed that there was no uniformity in the employment generation norms stipulated by the Department in the MoUs. **Out of the 21 land allotment cases under ICT Policy 2005-10, in 15 cases, the employment generation target stipulated in the MoUs ranged from 100 to 250 per acre. In six MoUs, the Department stipulated employment target of 500 per acre**. The reasons for adopting different norms for different units were not on record.

Government replied (November 2017) that the clause of 100 jobs per 0.30 acre of land stipulated in ICT Policy 2005-10 relate only to concessions on land cost and that there was no minimum employment norm in the Policy. The reply is contrary to the fact that in the MoUs, the Department had incorporated minimum employment norm without linking to the concessions. Further, the reply is silent about lack of uniformity in the employment generation norm stipulated in different MoUs. In the absence of uniform procedure, the Department failed to ensure that the extent of lands allotted to the units was proportionate to the employment generation committed by them.

2.2.7.3 Delay in implementation of projects and shortfall in employment generation by IT/ITES units which were allotted lands

(i) Delay in implementation of projects by IT units that were allotted land under ICT Policies 2005-10 and 2010-15:

On the recommendations of the Department, the APIIC allotted land to 25 IT Units under ICT Policies 2005-10 (23 units) and 2010-15 (2 units). APIIC cancelled[27] the land allotments to two units, due to non-implementation of the projects. In case of the remaining 23 units, APIIC handed over the sites to these units between 2006 and 2012. As per the MoUs concluded with the

[27] Both these units filed Writ Petitions in the Court and the cases are sub-judice.

units, the due dates for completion of these projects fell between 2009 and 2015 (details are shown in ***Appendix - 2.2***). Audit observed that:

- Out of the 23 units, only 14 units had completed the projects. However, the dates of completion of these projects were not furnished by the Department. In eight cases, the projects were still under construction as of July 2017, despite time over run of 22 to 101 months.
- One unit[28] kept the plot vacant due to an electrical pole existing in the middle of the plot which was shifted only in February 2017, i.e., more than four years after handing over the land to the unit. The unit was yet to start construction (July 2017) and had not submitted the time lines for project implementation.

The reasons for delays in the above projects were not recorded in the files of the Department/APIIC. Abnormal delays ranging from 22 months to 101 months in implementation of the projects resulted in non-achievement of objectives of promotion of IT industry and creation of employment.

Government replied (November 2017) that the projects were delayed due to infrastructural problems like hilly terrain of the land in the IT parks, recession during 2008-13, unrest due to Andhra agitation and natural calamity like Hud Hud cyclone. The reply is not convincing as the above mentioned causes were not exclusive to only these units and the other 14 were able to complete the projects in the same IT parks during this period.

(ii) Shortfall in employment generation by IT units that were allotted land under ICT Policies 2005-10 and 2010-15:

In respect of generation of employment by the IT units that were allotted land, Audit observed that:

- As against the total employment generation target of 10,809 jobs as per the MoUs concluded with the 23 units, these units created a total of only 4,326 jobs (40 *per cent*) as of July 2017, as per the information furnished by the APIIC.
- Nine units (Sl. No. 14 to 21 & 23 in ***Appendix - 2.2***) could not create the employment of 5,450 as stipulated in the MoUs due to non-completion of the projects despite time over run of 22 months to 101 months.
- Even in the case of the 14 units which had commenced operations, only six units were stated to have met the target of employment as per the information furnished by the APIIC. In respect of eight units (Sl. No 1,

[28] M/s Spectrum Innovative Technologies, Visakhapatnam

3, 4, 6, 7, 10, 13 & 22 in ***Appendix - 2.2***) there was a shortfall of 1,821 (50.94 *per cent*) in employment generation (Target: 3,575; Achievement: 1,754).

- The APIIC stated that six units had created targeted employment fully and eight units partially. However, Audit observed that the APIIC was merely relying on the list of employees furnished by the units and was not ensuring the authenticity of the employment details so furnished by the units. APIIC did not insist on furnishing of supporting details like Provident Fund (PF)/ Employees State Insurance (ESI) Registration Numbers of the employees by the units. Only five out of the 14 units had furnished the PF Registration Numbers of employees along with the employee lists.

- Further, the units furnished the list of employees only once at the time of project completion and the APIIC was not obtaining this information periodically in the subsequent years.

- In respect of three units, the APIIC did not obtain even the list of employees from them.

- The terms and conditions of the MoUs concluded with the units stipulated recovery of existing market rate of the land proportionate to the employment not generated along with interest of 16 *per cent* per annum from the defaulting units. However, APIIC did not impose/recover any such penalties.

- The ITE&C Department also was not monitoring the progress of creation of targeted employment by the units against the targets stipulated in the MoUs.

Thus, due to delays in implementation of projects by the units and lack of monitoring by the Department/APIIC on the progress of project implementation/ employment generation by the units, the targeted number of jobs were not created.

Government replied (November 2017) that the desired employment goal was not achieved by the units due to issues like recession, united Andhra agitations and Hud Hud cyclone, besides infrastructural issues/ground conditions. The reply is not tenable as the reasons put forth were not specific to some units and the other units were stated to have created the targeted employment. The reply did not address the audit observations on non-authentication of the employment details and lack of monitoring by the Department.

(iii) Land allotments made under IT Policy 2014-20:

Under IT Policy 2014-20, on the recommendations of the Department, APIIC handed over lands to 15 units between March 2015 and March 2017. As per the MoUs concluded with the IT units, the due date for completion of projects by these units would fall between March 2018 and March 2020. As per the MoUs, the units were required to commence construction within 6 months/12 months from the date of handing over of site.

Audit observed that out of the 15 units, the due date for commencement of construction was over in case of 11 units. Of these, nine units were yet to start construction work (July 2017) and the delay in commencement of construction in these cases ranged from 4 months to 14 months. Reasons for the delay in commencement of construction in these projects were not on record.

Government replied (November 2017) that the Department and the APIIC were conducting multiple meetings with the IT units for seeking explanations from them and were granting extensions in genuine cases. Reply is not acceptable as the Department and the APIIC were not recording the reasons for delays in their files. Even in the minutes of the internal review meetings, there was no discussion about the reasons for delays in commencement of construction or grant of extensions in respect of these 9 units. Inaction in these cases is fraught with the risk of lands being retained by the units for long periods without implementing the projects.

2.2.7.4 Lack of proper monitoring mechanism

To ensure that the units complete their projects and commence operations in allotted time, it was essential that the Department closely monitored the progress of these projects. Audit observed that there was no mechanism in place in the Department/APIIC to monitor the progress of implementation of the IT projects by the units to which lands were allotted.

- It was the ITE&C Department which recommended for land allotments and entered into MoUs with the units. However, it had not developed any system to watch periodical status/ progress reports from APIIC/IT units on implementation of the IT projects and employment generation by the units.

- The APIIC also did not stipulate/obtain any periodical progress reports from its Zonal offices or the IT units.

- APIIC allots lands to IT units on the recommendations of the CCITI. But the CCITI had not played any role in monitoring the implementation of the IT projects by the IT units after allotment of lands. There was no implementation/ monitoring committee formed at any level.

Government replied (November 2017) that APIIC and the Department were jointly monitoring the implementation of the projects in the joint review meetings held between them. The reply is not acceptable since neither the ITE&C Department nor the APIIC conducted any review meetings on the progress of the IT projects until March 2017. It was only in April 2017 that the APIIC started conducting review meetings with the IT units (meetings were held in April, July and August 2017). The reply was silent on the inadequate review prior to April 2017. The reply was also silent on the non-stipulation/non-obtaining of periodical progress reports from the IT Units/Zonal offices of APIIC.

The abnormal delay in implementation of projects by IT units coupled with inadequate monitoring by the Department led to non-achievement of the objectives of promotion of IT industry and creation of employment.

2.2.8 Development of Common Facilities and Incubation Spaces in IT-SEZ, Madhurawada, Visakhapatnam

The GoAP decided (March 2007) to develop 'Common facilities/Incubation centres' in IT-SEZ, Madhurawada, Visakhapatnam with a view to promote Visakhapatnam as a Tier-II IT Hub. APIIC, after inviting bids, allotted (January 2008) 7.24 acres of land[29] in Madhurawada on lease basis (33 years) to a private Developer for development of IT Tower, Incubation Spaces and Support Services. Later, the APIIC withdrew (May 2012) 2.47 acres of land on the ground that this part of land was not suitable. Accordingly, the APIIC executed (April 2013) a lease deed for the remaining 4.77 acres located in the SEZ area and handed over the land to the Developer in April 2013.

As per lease deed, the Developer shall develop an IT Tower with office space of 30,000 Sft. for IT/ITES Companies and Incubation Space of 25,000 Sft. The Developer would also develop support services including serviced apartments, bank, health club and restaurants. The agreement stipulated that the Developer should commence construction within three months[30] and complete construction substantially within 24 months. However, the Developer did not take up any development activity on the allotted land so far.

Audit observed that the APIIC took four years to withdraw the unsuitable land of 2.47 acres and to issue (May 2012) the revised Letter of Award (LoA). Withdrawal of part of land on the ground of its non-suitability indicates improper survey at the time of initial allotment. Even after modifying the LoA,

[29] This land was located in Hill No.2 (2.50 acres in SEZ area and 2.47 acres in non-SEZ area) and Hill No.3 (2.27 acres in SEZ area) in Madhurawada.
[30] from the date of execution of lease deed or taking possession of land or obtaining of all statutory approvals for construction, whichever is later.

the APIIC executed (April 2013) the lease deed with Developer after a gap of 11 months. Reasons for these delays were not on record.

The Developer had not commenced construction till August 2017. Finally, in the review meeting held by APIIC in August 2017, it was decided to cancel the land allotment to the Company.

Thus, the intention of Government to develop IT/ Incubation space and common facilities in the IT-SEZ remained unrealized even after nine years.

Government in its reply (November 2017) accepted that part of land allotted initially was not suitable. It further stated that IT industry did not show much interest in the region due to adverse conditions like recession, socio political situation, etc. and the Developer did not create infrastructure as per the agreement. The reply is silent on the reasons for delay in revising the land allotment and failure to sort out differences with the Developer by APIIC.

2.2.9 Development of Incubation Centres

The Innovation and Start-up (IS) Policy 2014-20 aimed at creating an ecosystem that produces an entrepreneur in every family. The Policy targeted (i) Establishment of 100 Incubators/Accelerators; (ii) Incubation of 5,000 Companies and Start-ups; (iii) Development of one million Sft. of incubation space; and (iv) Creation of at least one home grown billion dollar technology start-up, by June 2019. As per the Policy, the Incubators were to be provided with fully furnished and ready to use Plug and Play IT infrastructure along with other facilities as infrastructure support from the State Government.

Accordingly, the Department planned (2014-15) to develop Incubation Centres at Visakhapatnam, Tirupathi, Kakinada and Anantapuramu. APIIC constructed and handed over to the Department (October 2015 to November 2016) the buildings for Incubation Centres at Visakhapatnam, Tirupathi and Kakinada. The construction work of Incubation Centre at Anantapuramu was in progress (March 2017).

2.2.9.1 Selection of Incubators and utilization of the Incubation space

For selection of pilot Incubators, GoAP constituted a Committee under the Chairmanship of Advisor (IT), GoAP with three other members including the Secretary, ITE&C Department[31]. The Department issued (September 2014) notification inviting reputed Incubators for managing/operating the incubation spaces available. After selection, the GoAP entered into MoUs (2015-16) with two Incubators for setting up Incubation Centres at Visakhapatnam and with one Incubator for setting up Incubation Centre at Tirupati.

[31] The other two members are Joint Director (Promotions) IT of ITE&C Department and Secretary, IT Software Enterprises Association, AP.

Audit observed that as against the total space of 79,530 Sft. available in the three Incubation Centres, the Department could identify Incubators and enter into MoUs for only 22,256 Sft. (i.e., 28 *per cent*), as of May 2017. Out of the remaining space of 57,274 Sft., the Department was utilizing 33,500 Sft. (in Visakhapatnam) for other purposes by allotting it to IT units/APEITA. The balance 23,774 Sft. (8,774 Sft. in Tirupati and entire 15,000 Sft. in Kakinada) remained unutilized as of May 2017. The efforts of the Department to identify Incubators for the remaining incubation space in these Centres were not forthcoming from the records furnished to Audit.

Government replied (November 2017) that agreement for another 20000 Sft. in Visakhapatnam and MoU with another agency was under consideration and that the space would be fully utilized by end of this financial year. In respect of the Incubation Centre at Kakinada, Government replied that it was negotiating with incubators and was in the process of bringing into utilization 2,000 Sft. It further replied that the Incubation Tower at Tirupati had been temporarily allotted to the International Institute of Digital Technologies.

Non-utilization of the incubation space fully for intended purposes resulted in partial achievement of the objective of encouraging innovation and Start up units. **Department needs to take steps to invite fresh bids to attract incubators by giving wide publicity so as to fully utilise the space available in the Incubation Centres.**

2.2.9.2 Monitoring on the performance of Incubation Centres

The responsibilities of Incubators, as per the MoUs, included managing the Incubator facility and producing the mutually agreed number of Incubated Start-up units, as shown below:

Table 2.8 - Start ups deliverable by Incubators

Sl. No.	*Name of the Incubator facility & Location*	*Office space provided (Sft.)*	*Date of MoU*	*Term and Duration*	*No. of Incubated Start-ups to be delivered (Year-wise)*
1	NASSCOM, Technology Research and Incubation Park, Visakhapatnam	5,500	15.03.2016	5 Years	2016-17: 25*
2	M/s GOVIN, Incubation Towers, Visakhapatnam	6,000	21.02.2015	5 Years	2015-16: 5; 2016-17: 15; 2017-18: 20; 2018-19: 20
3	M/s Venusgeo Solutions Pvt. Ltd. (7in Q), Incubation Towers, Tirupati	2,450	24.09.2015	3 Years	2015-16: 50; 2016-17: 100; 2017-18: 200

* Number for subsequent years to be determined after review

(***Source****:* Information furnished by ITE&C Department and APEITA)

Audit observed that the Department was not monitoring the performance of the Incubators with whom MoUs were concluded. **The Department did not even have the details of number of start-up units that came up in the Incubation Centres.** It did not prescribe/obtain any periodical reports from the Incubators to evaluate their performance and deliverables. There was also no evidence that the Department had conducted any review meetings with the Incubators.

Government replied (November 2017) that periodical review meetings were conducted with Incubators, one non-performing incubator was sent out and one low performing Incubator was advised to improve performance. The reply was not supported by any documentation on the performance of Incubators against the stipulated targets of incubated start ups.

Thus, there was no assurance as to what extent the Department had achieved the intended objective of promoting start-up companies through the Incubation Centres.

2.2.9.3 Allotment of space on rent free basis to some units

As per IS Policy 2014-20 and MoUs entered with Incubators, no rent was chargeable for incubation purpose. The IS Policy did not provide space for other purposes on rent free basis.

Audit observed that the Department had allotted 13,000 Sft. of space in the Incubation Centre, Visakhapatnam to four private firms for non-incubation purposes. In case of one firm (space allotted: 5,000 Sft.), the Department was collecting a total rent of ₹ 75,000 per month. However, in case of other three firms, it allotted rent-free working space of 8,000 Sft.

Thus, there was no uniformity in the rent collection from the firms which were not incubators. Non-collection of rent from the three units led to loss of revenue of ₹ 1.20 lakh per month (for 8000 Sft. at the rate of ₹ 15 per Sft. (₹ 75,000 / 5000 Sft.) to the Department. Since the Department did not furnish the details of the periods for which the three firms were rented the incubation spaces on rent-free basis, the total loss for the period could not be calculated. Government reply was silent on not charging of rent from some units. The allotment of space to firms free of rent for non-incubation purposes was arbitrary and without any basis.

2.2.10 Andhra Pradesh State Wide Area Network (APSWAN)

APSWAN was proposed to connect the State Headquarters (SHQ) with all District and Mandal Headquarters (DHQs/MHQs) with minimum 2 Mbps leased line. The objective was to create a secure Government network for the purpose of delivering G2G and G2C[32] services through Common Service Centres (CSCs). The GoAP had developed APSWAN through Public Private Partnership (PPP) model.

Non-handing over of APSWAN assets by the Operator: The BOOT Operator was to hand over the APSWAN assets in working condition to the APTS at the end of contract period, in accordance with conditions of contract. The contract with the BOOT operator for APSWAN expired in November 2015 and APTS concluded (November 2015) a fresh Facility Management & Annual Maintenance Contract (FM&AMC) with a new agency. However, The BOOT Operator was yet to hand over (July 2017) some of the assets[33] to the FM&AMC agency even after more than 20 months since expiry of their contract. The APTS failed to ensure complete handing over of assets by the BOOT Operator.

Government replied (November 2017) that final formal asset handing over would be done after rectification of some of the faulty assets.

2.2.11 Conclusion

The Department had been implementing several initiatives for development of IT infrastructure in the State. Audit scrutiny revealed that monitoring by the Department on implementation of IT projects was poor. There were abnormal delays in implementation of IT projects by IT Units that were allotted land. Even the IT Units that completed the projects did not fully create the targeted employment. This resulted in short-achievement of objectives of development of IT industry and creation of IT jobs. The Incubation Centres set up at Visakhapatnam, Tirupati and Kakinada were only partly serving the incubation purpose. In the absence of documentation on the performance of Incubators, there was no assurance that the intended objective of promoting start-up companies had been achieved.

2.2.12 Recommendations

Audit recommends that:

- ***The Department should prepare and implement a long term action plan/strategy so as to achieve the IT investments, software exports and employment goals aimed by the IT policy 2014-20.***
- ***Feasibility studies should be conducted while identifying lands regarding their suitability for allotment to IT units in order to avoid non progress of projects at a later stage.***

[32] G2G: Government to Government; G2C: Government to Consumer

[33] DHQ Switch - 1; MHQ Switches - 19; MHQ Routers - 19; 5 KVA/8 KVA Generator sets - 662; Isolation Transformers - 74; etc.

- ***The Department should put in place monitoring mechanism including stipulation of periodical progress reports from the implementing agencies and IT units that were allotted land and incubation spaces.***

- ***Department need to take steps to identify Incubators and utilize vacant space at incubation centres. Department may need to consider constitution of an expert panel for assessment of the performance of Incubators.***