
Government of Andhra Pradesh
Report No. 4 of 2017
Report of the
Comptroller and Auditor General of India
on
Economic Sector
for the year ended March 2016

Government of Andhra Pradesh
Report No.4 of 2017

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PREFACE

This Report for the year ended March 2016 has been prepared for submission to the Governor of Andhra Pradesh under Article 151 of the Constitution of India.

The Report contains significant results of the performance audit and compliance audit of the Departments of the Government of Andhra Pradesh under the Economic Services including Departments of Agriculture; Rain Shadow Area Development; Agriculture Marketing and Co-operation; Animal Husbandry, Dairy Development and Fisheries; Energy, Infrastructure and Investment; Environment, Forests, Science and Technology; Industries and Commerce; Information Technology, Electronics and Communications; Water Resources; Public Enterprises; and Transport, Roads and Buildings. However, the other Departments are excluded and covered in the Report on General and Social Services.

The instances mentioned in this Report are those, which came to notice in the course of test audit for the period 2015-16 as well as those which came to notice in earlier years, but could not be reported in the previous Audit Reports. Matters relating to the period subsequent to 2015-16 have also been included, wherever necessary.

The audit has been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.
Chapter - I
Overview of Economic Sector
Chapter-I

Overview of Economic Sector

1.1 Introduction

Andhra Pradesh State has a population of 4.95 crore with a geographical area of 1,62,760 sq.kms. For the purpose of administration, there are 33 Departments at the Secretariat level headed by Principal Secretaries/Secretaries who are assisted by Directors/Commissioners and Subordinate officers under them. This Report covers the functioning of 11 Departments of Economic Sector listed in Table 1.1.

1.2 Expenditure of Economic Sector Departments

Expenditure incurred by the Departments during the period 2011-16 is given in Table 1.1.

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<td>1</td>
<td>Agriculture¹</td>
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<td>3</td>
<td>Agriculture Marketing &amp; Co-operation</td>
<td>343.01</td>
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<td>4</td>
<td>Animal Husbandry, Dairy Development &amp; Fisheries</td>
<td>729.58</td>
<td>830.61</td>
<td>839.18</td>
<td>715.35</td>
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<td>5</td>
<td>Energy, Infrastructure &amp; Investment²</td>
<td>4367.68</td>
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<td>7553.28</td>
<td>14476.96</td>
<td>3852.32</td>
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<td>6</td>
<td>Environment, Forests, Science and Technology</td>
<td>380.74</td>
<td>760.53</td>
<td>705.66</td>
<td>2464.64</td>
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<td>7</td>
<td>Industries and Commerce</td>
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<td>Water Resources³</td>
<td>1.46</td>
<td>1.40</td>
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<td>10</td>
<td>Public Enterprises</td>
<td>3043.04</td>
<td>4188.66</td>
<td>4948.75</td>
<td>5969.18</td>
<td>4076.03</td>
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<td>11</td>
<td>Roads &amp; Buildings⁴</td>
<td>30045.16</td>
<td>35958.48</td>
<td>36238.29</td>
<td>42681.33</td>
<td>23436.30</td>
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</tbody>
</table>

*These figures represent the expenditure figures of the erstwhile composite AP State from 01 April 2014 to 01 June 2014 and of residuary AP State from 02 June 2014 to 31 March 2015.

(Source: Appropriation Accounts of Government of Andhra Pradesh for the relevant years)

¹ The expenditure of Agriculture, Rain Shadow Area Development and Agriculture Marketing is covered under Grant No. XXVII – Agriculture and the expenditure of Co-operation Department is covered under Grant No. XXX.

² These figures represent the expenditure on Energy only. The expenditure of Infrastructure & Investment is covered under Grant No. XI – Roads, Building and Ports.

³ formerly the Irrigation & Command Area Development Department

⁴ These figures also include the expenditure on Infrastructure & Investment.
Of the 11 Departments, with a total expenditure of ₹23,436.30 crore, covered in this Report, a major portion of expenditure was incurred by Water Resources (40.95 per cent), Roads and Buildings and Infrastructure and Investment (17.39 per cent), Agriculture (16.51 per cent) and Energy (16.44 per cent) Departments during 2015-16.

1.3 About this Report

This Report of the Comptroller and Auditor General of India (CAG) relates to matters arising from the audit of 11 Government Departments and Autonomous Bodies under the Economic Sector. Compliance Audit covers examination of the transactions relating to expenditure of the audited entities to ascertain whether the provisions of the Constitution of India, applicable laws, rules, regulations and various orders and instructions issued by the competent authorities are being complied with. Performance Audit examines whether the objectives of the programme/activity/Department are achieved economically, efficiently and effectively.

1.4 Authority for audit

The authority for audit by the CAG is derived from Articles 149 and 151 of the Constitution of India and the Comptroller and Auditor General’s (Duties, Powers and Conditions of Service) Act, 1971 (DPC Act). CAG conducts audit of expenditure of the economic sector Departments of the Government of Andhra Pradesh under Section 135 of the DPC Act. CAG is the sole auditor in respect of four6 autonomous bodies which are audited under Sections 19(2)7 19(3)8 and 20(1)9 of the DPC Act. In addition, CAG also conducts audit of other autonomous bodies under Section 1410 of DPC Act which are substantially funded by the Government. Principles and methodologies for

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5 Audit of (i) all transactions from the Consolidated Fund of the State, (ii) all transactions relating to the Contingency Fund and Public Accounts and (iii) all trading, manufacturing, profit and loss accounts, balance sheets and other subsidiary accounts kept in any Department of a State.
6 AP Electricity Regulatory Commission (APERC) under Section 19(2), AP Khadi and Village Industries Board (APKVIB) under Section 19(3), Environment Protection Training and Research Institute (EPTRI) under Section 20(1) and AP Compensatory Afforestation Fund Management and Planning Authority (AP State CAMPA) under Section 20(1) of DPC Act.
7 Audit of the accounts of Corporations (not being Companies) established by or under law made by the Parliament in accordance with the provisions of the respective legislations.
8 Audit of accounts of Corporations (not being companies) established by or under law made by the State Legislature in accordance with the provisions of respective legislations.
9 Audit of accounts of any body or authority on the request of the Governor, on such terms and conditions as may be agreed upon between the CAG and the Government.
10 Audit of all receipts and expenditure of (i) any body or authority substantially financed by grants or loans from the Consolidated Fund and (ii) any body or authority where the grants or loans to such body or authority from the Consolidated Fund in a financial year is not less than ₹ one crore.
various audits are prescribed in the Auditing Standards and the Regulations on Audit and Accounts, 2007 issued by the CAG.

1.5 Planning and conduct of audit

The primary purpose of this Report is to bring to the notice of the State Legislature important results of Audit. Auditing Standards require that the materiality level for reporting should be commensurate with the nature, volume and magnitude of transactions. The audit findings are expected to enable the Executive to take corrective action as also to frame policies and directives that will lead to improved management of the Organisations, thus contributing to better governance.

The Audit process starts with the assessment of risks faced by various Departments of Government, based on expenditure incurred, criticality/complexity of activities, level of delegated financial powers, assessment of overall internal controls and concerns of stakeholders. Previous Audit findings are also considered in this exercise. Based on this risk assessment, the frequency and extent of Audit are decided.

After completion of Audit, Inspection Reports containing Audit findings are issued to the heads of Departments, who are requested to furnish replies to the Audit findings within one month of receipt of the Inspection Reports. Whenever replies are received, Audit findings are either settled or further action for compliance is advised. Important Audit observations arising out of these Inspection Reports are processed for inclusion in the Audit Reports which are submitted to the Governor of the State under Article 151 of the Constitution of India. During 2015-16, various Departments/Organisations under the Economic Sector were audited and 194 Inspection Reports containing 1339 Paragraphs were issued.

1.6 Response to Audit

1.6.1 Performance Audit and Compliance Audit observations

One Performance Audit and five compliance audit paragraphs included in this Audit Report were forwarded demi-officially to the Principal Secretaries/Secretaries of the Departments concerned between September and October 2016, with a request to send their responses. Government/Department’s responses have not been received for any of them so far (December 2016).

1.6.2 Follow-up on Audit Reports

The Finance and Planning Department had issued (May 1995) instructions to all Administrative Departments to submit Action Taken Notes (ATNs) on the recommendations of the Public Accounts Committee (PAC) relating to the
paragraphs contained in Audit Reports within six months. Audit reviewed the outstanding ATNs as of 31 December 2016 on the paragraphs pertaining to Economic Sector Departments included in the Reports of the Comptroller and Auditor General of India, Government of Andhra Pradesh and found that two Departments\textsuperscript{11} did not submit ATNs for the recommendations pertaining to seven audit paragraphs discussed by PAC.

\textbf{1.6.3 Outstanding replies to Inspection Reports}

The Accountant General (E&RSA), Andhra Pradesh and Telangana arranges to conduct periodical inspections of the Government Departments to test-check transactions and verify maintenance of important accounts and other records as prescribed in the rules and procedures. These inspections are followed up with Inspection Reports (IRs) incorporating irregularities detected during the inspection and not settled on the spot, which are issued to the heads of the offices inspected with copies to the next higher Authorities for taking prompt corrective action. The heads of the offices are required to promptly address the observations contained in the IRs, rectify the defects and omissions and report compliance through replies. Serious financial irregularities are reported to the heads of Departments and the Government.

2311 IRs containing 7866 paragraphs issued upto March 2016 were pending for settlement as of 30 September 2016. The Department-wise details are given in \textit{Appendix-1.1}.

\textbf{1.7 Significant Audit Findings}

\textit{Performance Audit}

\textbf{Implementation of selected Lift Irrigation schemes}

Lift Irrigation Schemes are major sources for supply of water for irrigation, domestic and industrial uses and cater to the needs of drought prone areas. A Performance Audit (PA) of implementation of four lift irrigation schemes (LIS) - viz., Guru Raghavendra, Pulikanuma, Pattiseema and Pushkara LIS, was conducted (March to June 2016) to assess whether (i) planning for the LI Schemes was comprehensive and the schemes were formulated properly; (ii) tendering and contract management, at all stages of the project implementation, followed the canons of financial propriety and transparency and (iii) the LI schemes were executed within the time and cost budgeted and the envisaged target of creation of irrigation potential was achieved.

The major audit findings are summarized below:

\textsuperscript{11} Water Resources Department: 5 ATNs and Animal Husbandry, Dairy Development and Fisheries Department: 2 ATNs
In Guru Raghavendra and Pulikanuma Projects, non-conducting of feasibility studies for 12 out of the 13 individual LI schemes and non-preparation of a comprehensive Detailed Project Report (DPR) for the entire project led to discrepancies/inconsistencies in levels in some of the sub-schemes subsequently, leading to non-release of water to the intended ayacut.

In Pushkara Lift Irrigation Scheme (LIS), preparation of DPR without proper investigations led to several major changes during execution and delay in completion of the project.

Pattiseema LIS was taken up without completion of Polavaram Right Main Canal (RMC) and its distributaries and without identifying the industrial and domestic water users. This, coupled with increase in project cost, resulted in adverse Benefit Cost Ratio.

In Pattiseema LIS, relaxation of ceiling on tender premium and award of work at higher premium without completion of Polavaram RMC and its distributary system resulted in avoidable additional burden of ₹199 crore. Audit also observed avoidable extra expenditure of ₹138.18 crore due to unwarranted change in construction methodology (₹106.17 crore) and reimbursement of Central Excise Duty on pipes despite availability of exemption (₹32.01 crore).

Incorrect reimbursement of Labour Welfare Cess, though not required under the agreement, led to undue benefit of ₹14.22 crore to the contractor in Pattiseema LIS.

Absence of suitable clauses in the Engineering, Procurement and Construction (EPC) contracts led to non-accrual of saving to Government to the tune of ₹20.62 crore as a result of reduction of capacity of pumps/motors in Pattiseema LIS and ₹4.12 crore due to reduction in diameter/length of pressure mains in Guru Raghavendra and Pulikanuma Projects.

In the canal package of Pushkara LIS, audit observed extension of undue benefit of ₹21.81 crore to the contractor due to payment of price escalation contrary to agreement conditions and avoidable additional expenditure of ₹27.09 crore due to deletion of bridge works from the scope of contract and executing them as deposit works.

Similarly, in the pump house work at Purushothapatanam, there was undue benefit of ₹1.57 crore to the contractor due to payment of price escalation for the work completed five years ago.
Though the Guru Raghavendra and Pulikanuma projects were taken up for serving an ayacut of 85,790 acres, the ayacut served during 2011-16 ranged from 7,092 acres (in 2011-12) to 23,490 acres (in 2014-15), mainly due to improper planning, non-acquisition of lands, non-commissioning of lifts, lack of power supply arrangements, non-enhancement of distributaries of Tungabhadra Low Level Canal, etc.

Non-installation of pipes and electro mechanical equipment due to non-acquisition of land in Pulakurthy LIS of Guru Raghavendra Project resulted in blocking up of ₹48.55 crore.

In Pushkara LIS, though an ayacut of 1.86 lakh acres was to be created by the year 2006, the targeted ayacut has not been fully created even after time overrun of 10 years. Only 49 per cent of the field channels were completed, 44 structures on the distributaries were still incomplete and the ayacut of 1.45 lakh acres, stated to have been created, had not been authenticated through localisation process.

Compliance Audit

Implementation of Reforms in Agriculture Marketing System and use of Regulatory Fees collected by State Agricultural Produce Market Committees

The AP (Agricultural Produce and Livestock) Markets Act, 1966 was enacted for regulation of agricultural marketing in the State. There are 191 Agricultural Market Committees (AMCs) and 324 notified markets in the State. The Government of India (GOI) had proposed a Model Act in the year 2003, which was to act as a template for legislation in the States. Audit was conducted (January – May 2016) in the office of the Commissioner & Director of Agricultural Marketing and four selected district offices to assess whether necessary amendments in the State Act have been effected to adopt the reforms suggested by the GOI in Model Act, 2003 and whether the provisions of the State Act have been implemented effectively at field level.

The major audit findings are summarized below:

Though the State Act was amended to incorporate some major reforms viz. Private Markets, Contract Farming, Direct Purchase Centres, as suggested by the Government of India in the Model Act, to promote competitive marketing, no efforts were made to implement these provisions.
There are only 301 market yards in the State, against the requirement of 2000 markets, as per the recommendations of the National Commission on Farmers. The existing market yards did not have required infrastructure. No trading was conducted during 2011-16 in 90 out of the 99 market yards in the test-checked districts.

The proportion of sale in the market yards was meagre. In East Godavari district, only 0.50 per cent of the total agricultural produce was traded in the market yards and in Krishna district, no trading took place in the market yards of AMCs. There was no mechanism to monitor the trading that takes place outside market yards. The Director of Marketing did not have even the details of trading that took place inside and outside the market yards.

Though the Model Act stipulated that no commission agent should act in any transaction on behalf of an agriculturist-seller, the State Act/Rules have not been amended to this effect. During 2011-16, the farmers paid commission charges of ₹466.67 crore to the commission agents in four AMCs in the test-checked Districts.

Though, e-Trading was introduced in 10 markets in the State as suggested in the Model Act, these markets did not have essential facilities like grading, quality certification, etc. The present system does not allow the traders from other parts of the State/Country to participate in e-trading thereby preventing healthy competition. In Guntur AMC, 93.35 per cent of Chilli trade was done through single bids.

Though the Model Act provides for the direct election of members of the AMCs, the State Act had not been amended to incorporate this provision and the Chairmen and members of AMCs were being nominated by the Government and the role of the Marketing Department in the process was negligible. The nomination process also lacked transparency, as most of the members nominated under ‘Trader Members’ category had made no transactions prior to their nomination.

A major portion of the Central Market Funds (CMF) and AMC funds was being utilised for establishment expenditure and construction of godowns and only marginal amounts of funds were utilised for promoting agricultural marketing and reforms. There were cases of diversion of substantial amounts as loans/grants to other Departments/agencies.
Andhra Pradesh Road Sector Project

The Government of Andhra Pradesh had taken up the AP Road Sector Project with loan assistance from the International Bank for Reconstruction and Development (IBRD) and Government of India (GoI). The project comprises four components - (a) Road Improvement, (b) PPP facilitation support, (c) Institutional Strengthening and (d) Road Safety. Audit of implementation of the Project was conducted (December 2015 – June 2016) to ascertain whether the Project components were effectively implemented in a timely manner and the objective of providing better quality, higher capacity and safe roads to the users in a sustainable manner through enhanced institutional capacity had been achieved.

The major audit findings are summarized below:

- **Out of seven upgradation works taken up under the project, only one work was completed and the remaining six works were delayed with progress ranging from 5 to 90 per cent. With the current pace of execution, some of the works are unlikely to be completed within the loan closure period and there is a risk of under-utilization of IBRD loan assistance.**

- **Liquidated damages to the tune of ₹34.82 crore were not levied in respect of three upgradation works. In two terminated packages, cost of balance works of ₹159.96 crore was yet to be realised from the contractors. In one package, mobilization advance of ₹30.08 crore remained blocked with the contractor due to slow progress.**

- **Road stretches for Long Term Performance Based Maintenance Contracts (LTPBMC) were identified without any specified criteria. Out of the 2011 Km of road length covered under the test-checked LTPBMC works, road stretches of 472.208 Km were deleted from the scope of contracts due to improper selection and alternate roads were not taken up in lieu of the deleted stretches.**

- **Delays in collection of road data resulted in non-establishment of Road Management System besides increasing the cost thereon.**

- **The demonstration corridor taken up on Renigunta-Rayalacheruvu road as a model corridor with multi sector road safety measures was not completed due to delays in procurement of goods/works and lack of co-ordination among line Departments. The Department was yet to formulate the Road Safety Policy and the objectives of Road Safety component were not achieved.**
Development of Textile and Apparel Parks

Government of Andhra Pradesh contemplated establishment of Textile and Apparel Parks with an objective of increasing the textile exports and to generate employment opportunities in handloom and textile sector. Out of 11 Parks, Audit examined (May – June 2016) implementation of five Parks to ascertain the reasons behind delay in completion of parks and non-achievement of specified targets.

The major audit findings are summarized below:

- There were significant time overruns ranging from 23 to 156 months in completion of the five test-checked Parks.
- The shortfall in establishment of units ranged from 24 to 100 per cent in these Parks while the shortfall in employment generation ranged from 74 to 100 per cent.
- Three Parks viz., Textile Park, Mylavaram; Textile Park, Rayadurg and Apparel Export Park, Proddutur have not been completed, due to non-transfer/delay in transfer of lands in the name of Handloom and Textiles Department.
- No units were established in Mylavaram and Proddutur Parks, while only one unit was set up in Textile Park, Rayadurg and the infrastructure developed at a cost of ₹7.63 crore in these Parks remained largely idle.
- Infrastructure has not been fully developed in these Parks. Textile Park, Mylavaram did not have assured water supply. In Textile Park, Rayadurg, Water Treatment Plant and widening of approach road were yet to be taken up. In Apparel Export Park, Proddutur, facilities like water supply and electricity, common facilities centre, drainage/sewage, medical and training centre, etc. were not taken up due to non-release of funds. In Vizag Apparel Export Park, the developer did not establish Common Effluent Treatment Plant.
- In respect of M/s Brandix India Apparel City Private Limited, Visakhapatnam, lease rentals at prevailing rates were not collected on the land proportionate to employment not created, as infrastructure agreed to by the Government had not been developed fully and the commitment fulfilment date had not been notified.
➢ **Non-reduction of the agreement value despite reduction in the scope of work in Package No.53 of Handri Niva Sujala Sravanthi Project (Phase-II) led to non-accrual of savings of ₹6.47 crore to the public exchequer.**

[Paragraph 3.4]

➢ **Front loading of payments for excavation tunnel/approach channel in the payment schedules by reducing the provision for lining work, which was not executed by the contractor, in Package No.6 and Package No.10 of Handri Niva Sujala Sravanthi Project (Phase-II), resulted in excess payment of ₹4.97 crore to the agency.**

[Paragraph 3.5]
Chapter - II
Performance Audit
Chapter-II
Performance Audit
Water Resources Department

2.1 Implementation of selected Lift Irrigation Schemes

2.1.1 Introduction

Lift Irrigation (LI) Schemes are major sources for supply of water for both drinking and irrigation in Andhra Pradesh. They cater mostly to the needs of drought prone areas in uplands where there is no other possible method of providing water supply. As per the data available, there are 17 LI (major and medium) schemes\(^1\), with 25.35 lakh acres of contemplated ayacut, out of which Pattiseema LIS was completed during 2016. Ayacut irrigated under these LI schemes constitute 25 per cent of the total irrigated ayacut in the State.

2.1.2 Organizational setup

The Water Resources Department (WRD) is responsible for execution and maintenance of the irrigation projects including LI schemes in the State. The Principal Secretary, Water Resources Department at Secretariat level, Engineer-in-Chief (Irrigation) at State level, Chief Engineers, Commissioner of Command Area Development Authority, 50 Superintending Engineers and 266 Executive Engineers are in charge of the administrative, financial, technical aspects and execution of works taken up by Water Resources Department.

2.1.3 Scope and Methodology of Audit

A Performance Audit (PA) of implementation of four lift irrigation projects viz. Guru Raghavendra, Pulikanuma, Pattiseema and Pushkara selected through random sampling without replacement basis using Interactive Data Extraction and Analysis (IDEA) software was conducted from March to June 2016. Entry Conference was held on 3 May 2016 in which the objectives, scope and methodology of audit were intimated to the Department.

Scrutiny of records relating to the projects from their inception till March 2016 was done with special focus on last five years, at the Secretariat and Offices of Engineer-in-Chief (Polavaram Irrigation Project), Dowlaiswaram; Chief Engineer cum Superintending Engineer (Pattiseema), Dowlaiswaram; Chief Engineer (Project), Kurnool; Superintending Engineer (Pushkara), Tuni;

\(^1\) Information taken from the Administrative Reports/ official website of Water Resources Department
2.1.4 Audit objectives

Performance Audit of implementation of selected lift irrigation schemes was conducted to assess whether:

(i) Planning for the LI Schemes was comprehensive and the schemes were formulated properly;

(ii) Tendering and contract management, at all stages of the project implementation, had followed the canons of financial propriety and transparency; and

(iii) The LI schemes were executed within the time and cost budgeted and the envisaged target of creation of irrigation potential was achieved.

2.1.5 Sources of Audit criteria

Performance Audit findings were benchmarked against the following:

(i) Departmental Codes and Manuals,

(ii) Government Orders and Instructions/Circulars issued by Central/State Governments from time to time,

(iii) Central Water Commission (CWC) Guidelines,

(iv) National Water Policy, and

(v) Guidelines/norms of Ministry of Environment and Forests

2.1.6 Acknowledgement

Audit acknowledges the cooperation rendered by the officers and staff of the WRD during the course of the Performance Audit.

2.1.7 About the Projects

Out of the four LI schemes covered under the audit, two (Guru Raghavendra and Pulikanuma) were conceived to supplement the existing irrigation project (Tungabhadra) and the remaining projects (Pattiseema and Pushkara) were taken up to derive early benefits from the ongoing Polavaram irrigation project.

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2 PIP RMC Division, Kovvuru; PIP LMC Division Nos. 1 & 2, Dowlaishwaram; PIP LMC Division No. 3 Jaggampeta; PIP LMC Division No.4, Tuni; and GRP division No. 2, Yemmiganur
Guru Raghavendra Project consisting of 13 Lift Irrigation Schemes and one Minor Irrigation Scheme was taken up for supplementing the Tungabhadra Project Low Level Canal (LLC). Tungabhadra LLC takes off from right flank of Tungabhadra Project in Karnataka. Due to siltation in Tungabhadra dam, about 50,000 acres in the tail ends of distributaries were deprived of irrigation facilities. All the 14 schemes were given administrative approval between 2003 and 2011. The works were entrusted to different agencies under lump sum (LS) or Engineering, Procurement and Construction (EPC) contracts. Out of 14 Schemes, four schemes were executed by Andhra Pradesh State Irrigation Development Corporation (APSIDC) and the remaining 10 were executed through WRD. Out of 14 schemes, 11 were completed/commissioned between January 2006 and August 2014 and three schemes were under construction. The Pulikanuma LIS, which was administratively sanctioned in January 2008 is also part of Guru Raghavendra Project.

Pattiseema and Pushkara LISs were proposed for deriving early benefits from Polavaram irrigation project (an ongoing project) by lifting water from Godavari river. The water lifted would be routed to the Right Main Canal of the Polavaram Project and Pushkara Main canal, respectively. These schemes were administratively sanctioned by the Government in 2003 (Pushkara) and 2015 (Pattiseema). The work of Pattiseema which was awarded under EPC contract was completed within the prescribed time (March 2016). However, the construction work of Pushkara LIS was in progress till the date of audit. The present status of these projects in financial terms is shown in the table below:

*This includes IP contemplated under Polavaram Right Main Canal

**Source:** Departmental records

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### Table 2.1 – Details of original cost, revised cost and expenditure

<table>
<thead>
<tr>
<th>Name of the Project (LIS)</th>
<th>Administrative sanctions (₹ in crore)</th>
<th>Scheduled date of completion of works as per agreements</th>
<th>Project cost (₹ in crore)</th>
<th>IP planned (in lakh acres)</th>
<th>IP created/stabilised (in lakh acres)</th>
<th>Present status of the project</th>
<th>Total expenditure as of May 2016 (₹ in crore)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guru Raghavendra LIS (GLIS) and Pulikanuma (14 packages)</td>
<td>569.77 (2003 to 2011)</td>
<td>January 2005 to March 2015</td>
<td>January 2006 to March 2017</td>
<td>569.77</td>
<td>584.97</td>
<td>0.86</td>
<td>0.18</td>
</tr>
</tbody>
</table>

*3 Krishnadoddi, Chintamanupalli, Remata and Munagala LI schemes
Audit findings regarding contemplation, execution, completion and maintenance of the selected projects are discussed in the following paragraphs.

Audit Findings

2.1.8 Deficiencies in Planning

In all the schemes covered under audit, there were failures in planning as discussed below:

2.1.8.1 Non-preparation/deficient preparation of Detailed Project Reports

Para 391 of Andhra Pradesh Public Works Department (APPWD) Code prescribes preparation of Detailed Project Report (DPR) before taking up a project. As per directions of the Planning Commission, whenever any project is taken up on interstate river, Preliminary report for clearance of the project is to be sent to CWC for scrutiny following which investment clearance from Planning Commission is to be obtained for inclusion in the State Development Plan. If the proposal is found acceptable, CWC conveys ‘in principle’ consent to State Government for preparation of DPR. Audit observed the following:

(i) Guru Raghavendra and Pulikanuma LI schemes: The DPR for Guru Raghavendra project (prepared in the year 1998) was originally contemplated for execution of three sub-schemes including Pulikanuma LIS. Subsequently, several changes were made to the project on adhoc basis taking the total number of sub-schemes to 14. However, the Department neither prepared any revised DPR for the entire project taking into account these new sub-schemes nor prepared individual project reports for them. Further, feasibility studies were not conducted for 124 of the 13 individual LI schemes. Due to non-preparation of revised DPR, discrepancies/inconsistencies in levels were observed subsequently in some of the sub-schemes under the project, resulting in non-release of water to the intended ayacut, apart from time and cost overrun as discussed in Para 2.1.8.2.

The Department, during the exit conference, accepted (December 2016) that individual DPRs for all LI schemes of GRP LI scheme were not prepared but a DPR for the full project had been prepared. The reply was not tenable since the DPR envisaged only three sub schemes but the Department had executed 14 sub schemes. The Department should have prepared fresh DPRs for the new sub schemes.

(ii) Pushkara LI scheme: The feasibility report and DPR for Pushkara LIS were prepared in 2003 for creation of an ayacut of 0.98 lakh acres and the

4 Feasibility report was prepared for Pulikanuma LI scheme.
works were awarded in 2004. The Department later increased the ayacut to 1.86 lakh acres and prepared a revised DPR in 2006. Even this DPR was found to be deficient and several major and frequent changes were made during execution viz, increase in number of lifts from three to 11 and increase in length of canal from 91.5 km to 97.1 km. Further, though the project was scheduled to be completed by 2006, the Department took nearly five years (2003 to 2008) for finalization of the components of the project resulting in delay in completion. The project was not completed (June 2016) even after lapse of more than 10 years from the scheduled date of completion.

The Department replied that changes had to be made due to undulations in topography observed after survey and investigation. The reply confirms that the DPR was prepared without conducting proper survey and investigation.

2.1.8.2 Failure to take into account carrying capacities of distributaries

As the four LI schemes were meant to either supplement the already existing schemes or derive early benefits from other schemes being executed, they should have been planned taking into consideration the geographic locations and carrying capacities of existing distributary systems or those under development.

Audit observed that Department had failed to take into account the carrying capacity/heights of the existing distributary system and to ensure that it would be revamped/constructed in time to utilise the pumping capacity that was available. In all the projects, the ayacut intended was not completely served due to this lacuna on the part of the Department. There were also cases where ayacut was not served due to the height level difference between the water lifted/canal and the distributary system.

(i) Guru Raghavendra LIS: The Guru Raghavendra Project (GRP) works were taken up in 2004/2005, without preparing a comprehensive DPR and without proper investigation regarding compatibility of the existing distributary system of Tungabhadra LLC with the new sub-schemes being taken up. After 11 to 12 years of taking up of the Projects, the Department found (2015) in seven out of nine LI schemes either commissioned or ready for commissioning that the discharge capacities of Tungabhadra LLC distributaries at merging points were less than the discharge capacity of GRP supply channels by 12.83 to 89.04 per cent as detailed in Appendix-2.1. Three works were executed under EPC contract system and four were executed under lump sum contracts. Both the EPC agencies and the Department failed to take into account the differences in discharge capacities while designing the schemes. Though the Department had decided (July 2015) to enhance the capacity of canal sections to accommodate full discharge of GRP LI schemes,
even estimates had not been prepared/ finalized as of June 2016. Due to non-
 improvement of canal section, water was not being released into distributaries
 at the full discharge capacity resulting in deprivation of irrigation facilities to
 ayacutdars.

The Department accepted (December 2016) that the existing distributaries of
Tungabhadra LLC did not have sufficient capacity to take the discharge of
GRP supply channels and stated that action would be taken to redesign the
channel system.

Further, in Mugaladoddi scheme, which is a part of GRP and was
commissioned in 2009, the Department conducted (December 2012) a detailed
survey and observed that due to the height difference between the bed levels
of Tungabhadra LLC minors and GRP supply channels at the merging points,
water was not being supplied to 2600 acres out of the 3793 acres planned. It
has not been rectified till date (October 2016).

(ii) Pattiseema LIS: The Pattiseema LIS was intended to derive benefits by
utilizing the Right Main Canal (RMC) of Polavaram Irrigation Project. It was
to cater to the 1.2 lakh acres of ayacut besides diverting the flood water of
Godavari to Krishna river. Thus, completion of Polavaram RMC work
simultaneously with the Pattiseema LIS was essential to derive benefits from
the LIS. However, though the LI scheme was completed in time (March
2016), Audit observed that as of June 2016, the works of Polavaram RMC
were incomplete. Due to lack of canal system of adequate carrying capacity,
only 11 of the 24 pumps of Pattiseema LIS were operated during the flood in
July - September 2016. Thus, due to improper planning, the targeted
objectives could not be achieved despite completion of the LIS.

2.1.8.3 Non identification of ayacut/users of the projects

Para 390 of APPWD stipulates that the approximate extent of the ayacut of the
project and its general location should be specified while preparing project
reports.

Audit observed that neither the ayacut nor the actual users were identified
under the schemes though these were meant to supplement either the existing
projects or projects under construction.

(i) Guru Raghavendra Project: Basaladoddi LIS was conceived as part of
GRP for stabilization of gap ayacut of 6450 acres. However, the details of the
area to be covered were not specified. The work was awarded (July 2005) to a
contractor under EPC contract for ₹59.99 crore and was completed by
September 2013. After completion of the lift works, the Department found
(August 2015) that against total intended ayacut of 6450 acres, the existing
gap ayacut was only 3055 acres. This indicates that the Department had incorrectly estimated the extent of gap ayacut to be supplemented under this scheme. The balance ayacut of 3395 acres had to be newly developed to achieve the targets. The Department had to conclude (March 2016) a supplementary agreement for an amount of ₹1.68 crore with the agency for creation of the same.

Pulachinta LIS (a sub-scheme of GRP) taken up for irrigating gap ayacut of 4400 acres was completed in September 2011. The scheme was taken over by the Department in March 2014 after completion of defect liability period. Pulachinta is a two stage LIS. In the first stage, water is lifted from Tungabhadra River and routed through a gravity canal for a length of 8.525 Km into a reservoir. In second stage, water is lifted from the reservoir and routed through a gravity canal for a length of one Km to Chinnakothiliki distributary for serving the targeted ayacut. The water requirements of the farmers en route were not taken into consideration while planning the scheme. This led to unauthorized drawl of water by the farmers in the villages en route from the gravity canals and reservoir. As a result, the ayacutdars of Chinnakothiliki distributary, for whom the scheme was intended, were not getting the intended supply of water and only 44.32 per cent of the planned ayacut was served during the audit period. This could have been avoided had the Department identified the irrigation needs of the farmers en route.

(ii) Pulikanuma LIS: Pulikanuma LIS was taken up for supplementing an ayacut of 26400 acres beyond Km 270.00 of Tungabhadra LLC. The work was awarded (June 2008) to a contractor for ₹263.10 crore for completion in 36 months. It was observed that the details of ayacut to be served (distributary-wise and village-wise) were not mentioned either in the estimate or in the NIT/agreement and have not been defined even after eight years since commencement.

The Department may therefore identify the beneficiaries of the schemes and details of ayacut to be served for achievement of intended objectives immediately after completion of the Project.

(iii) Pushkara LIS: Audit observed that in Pushkara LIS also several changes were made during execution due to preparation of DPR without proper survey and investigation. The DPR of Pushkara LIS had proposed creation of 1223 acres ayacut in four villages in Kotananduru Mandal. However, during execution, the Department created ayacut in 16 villages in new mandals which were not contemplated in the DPR for creation of ayacut. No steps were taken by the Department to create ayacut in the four villages originally proposed.

(iv) Pattiseema LIS: The Administrative sanction was accorded (January 2015) for the Pattiseema LIS to divert 80 TMC of water from Godavari river
for domestic and industrial uses. However, no mention was made about irrigation facilities. The work was awarded at a cost of ₹1427.70 crore in March 2015 and was completed in March 2016. When the details of intended use of water under the scheme were called for by Audit, the Chief Engineer of the project replied (May 2016) that the list of industries had not been prepared and that the villages for domestic supply could not be identified since the distributary system for Polavaram RMC had not been finalized. The reply confirms that the project was taken up without identifying the users.

2.1.8.4 Inadequate planning for land

Though land acquisition issues cause delay in implementation of the Projects, these can be mitigated or reduced with proper planning. Audit came across some such issues which could have been avoided if the feasibility study, survey and investigation had been carried out properly.

In Chilakaladona sub-scheme of GRP, a reservoir with full reservoir level (FRL) of +340 M was to be constructed. While identifying the land to be acquired for the project, the Department estimated the submerge area at 307.72 acres. However, the Department conducted (September 2015) joint survey with Revenue Department and observed that the total area submerged was 369.95 acres. This implies that the land identified by the Department in the initial stage was erroneous. Accordingly, it submitted (November 2015) proposals to Revenue Department for acquisition of remaining land. The Department may now have to pay higher amount of compensation at ₹ five lakh to ₹ seven lakh per acre instead of ₹0.65 lakh to ₹0.70 lakh per acre.

While accepting the audit observation, the Department stated (December 2016) that the acquisition of additional land was under process.

It was further observed that the Department had acquired (in 2004) 19.74 acres of land for excavation of a supply channel. Later, the Department found that there was height difference between the supply channel and the distributary and changed the design of supply channel in May 2013. After revising the designs, the 19.74 acres of land acquired at a cost of ₹13.14 lakh was found unnecessary. As of June 2016, this land remains unutilised. This indicates that the supply channel was designed incorrectly.

The Department stated (December 2016) that they were planning to sell the land to the original land owners. However, the Department had not taken any action in the past three years to dispose of the land.

2.1.8.5 Benefit-cost ratio

Benefit-cost ratio (BCR) is one of the parameters for deciding whether a project is economically feasible or not. It was observed that BCR was either
not calculated or calculated on the basis of incorrect assumptions in the test-checked projects.

(i) Pattiseema LIS: Audit observed that in the case of Pattiseema LIS, the BCR was worked out on the basis of wrong assumptions and without supporting calculations. For example, revenue from industrial water supply was considered as ₹41.51 crore. However, no industrial units have been identified so far. The life of the project was taken as 20 years in DPR and depreciation was allowed accordingly. However, the project is contemplated to run only till the completion of the Polavaram Project which is scheduled for completion in 2019. Thus, the life of Pattiseema LIS would be only three years. Further, while calculating the BCR, the Department considered the irrigation benefits for an ayacut of 1.2 lakh acres under the Polavaram RMC. However, the works relating to distributary network under Polavaram RMC were yet to be taken up and no irrigation benefit has been achieved from this ayacut. If the above factors are considered, the BCR becomes adverse as shown in Appendix-2.2.

(ii) Pushkara LIS: In the case of Pushkara scheme, the Department had revised the BCR of the project from 5.09 (2003) to 2.09 (2006) after increase in project cost and targeted ayacut. The BCR will further reduce as the project cost has increased further from ₹297.25 crore to ₹674.52 crore on account of subsequent changes made in the project components without any increase in the ayacut. Further, since Pushkara LIS is to serve its ayacut only till completion of Polavaram project in 2019, delay in completion of the LIS will reduce its lifespan, thereby further lowering its BCR.

(iii) Guru Raghavendra and Pulikanuma LIS: The Department furnished BCR for only five out of the 13 LIS Schemes under Guru Raghavendra and Pulikanuma schemes. Details of calculations or assumptions made were not made available due to which Audit could not verify their correctness.

2.1.8.6 Project taken up without obtaining clearances

As per the Guidelines of CWC for Submission, Appraisal and Clearance of Irrigation and Multipurpose Projects, 2010, for any project which is having inter-state ramification, a preliminary report is to be sent to CWC for appraisal. If the project is found feasible, CWC conveys ‘in principle’ consent for preparation of Detailed Project Report. Further, Section 84 of the Andhra Pradesh State Reorganisation Act (2014) mandated that before taking of any new project on Krishna or Godavari rivers, CWC approval is to be obtained.

CWC approval for Pattiseema DPR was not obtained though it was required not only because Godavari and Krishna rivers that are being linked through the
Project are inter-state rivers, but also mandated under Section 84 of Andhra Pradesh State Reorganisation Act (2014).

Similarly, no Environmental Clearance was taken for the Project though it is required as per the notifications of Ministry of Environment, Forest and Climate Change (MoEF) as it is a major irrigation project.

During the exit conference, the Department stated (December 2016) that there was no necessity to obtain clearances as the same were obtained for Polavaram project.

The contention of the Department was not tenable in view of notifications of the MoEF and AP State Reorganisation Act.

2.1.9 Tendering

Many lacunae were observed in tendering process, especially in Pulakurthy LIS (a sub-scheme of GRP) and Pattiseema Project as discussed in the subsequent paragraphs.

2.1.9.1 Delay in award of work

Pulakurthy LIS under GRP was administratively sanctioned in August 2011 to irrigate 9830 acres gap ayacut at a cost of ₹113.26 crore. The work was entrusted to a joint venture (JV) of M/s Indian Hume Pipe Co. Ltd. and M/s Megha Engineering & Infrastructures Ltd. for execution in March 2013 under EPC contract and was scheduled for completion by September 2015. The work is still in progress (December 2016).

Audit observed that there were undue delays in award of work. The tender notice was issued in March 2012, after lapse of seven months from the date of administrative sanction (August 2011). Technical and Financial Bids were opened in November 2012 against the scheduled date in April 2012 with a delay of over six months. The work was entrusted to the agency in March 2013 with a further delay of over four months. Thus, the overall time taken for entrustment of work from the date of administrative sanction was 18 months. Delay in entrustment of work coupled with delayed execution of project led to non-accrual of envisaged benefits even after lapse of over five years.

The Department stated (June 2016) that the above delays were due to delay in Technical Sanction and repeated postponement of tender due to non-finalization of technical specifications of pipeline. However, the Department failed to minimize the administrative delays which were avoidable.
2.1.9.2 Improper relaxation of tender premium limit

As per Government Orders\(^5\), ceiling of tender premium for all the works should be five per cent. Tender beyond the prescribed limit should not be accepted in the first call. Accordingly, a condition to this effect was included in the NIT of Pattiseema Project. However, after issue of tender notice, the Engineer-in-Chief, ISPP Dowlaishwaram requested (7 January 2015) the Government to remove the existing ceiling of tender premium on the ground that the work of diverting water from Godavari to Krishna to fulfill the intended benefits was of urgent nature. Based on the request, ceiling limit of tender premium was relaxed (20 January 2015) by the Government and the NIT condition was amended accordingly before the closing date of the tender.

The estimated cost of Pattiseema LIS put to tender (ECV) was ₹1,170.25 crore and bid value quoted by the L1 contractor (M/s Megha Engineering & Infrastructures Ltd., Hyderabad) was ₹1,427.70 crore, which was 21.9991 per cent excess over the ECV. The bid was accepted and work was awarded (March 2015) at the quoted rate for completion by March 2016.

However, the Polavaram RMC works including distributary system were not completed even though the Pattiseema LIS completed in March 2016. Audit observed that though the project envisaged lifting of water through 24 pumps, the Department could lift water only through 11 pumps due to non completion of RMC and its distributaries.

Thus, awarding work at higher tender premium without ensuring completion of the Polavaram RMC and its distributary system led to avoidable extra expenditure of ₹199 crore, besides non achievement of intended benefit.

During the exit conference, the Department stated (December 2016) that excess tender premium was given as an incentive to complete the work in a record time to achieve efficiency.

However, relaxing the ceiling on tender premium resulted in avoidable additional burden of ₹199 crore which was unwarranted as even the intended beneficiaries had not been identified by the Department and the work of distributary system had not been taken up.

2.1.10 Execution and Contract Management

Proper contract management leads to timely execution of the Projects and economy in expenditure. Audit observed deficiencies in contract management leading to time and cost overruns as discussed below:

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\(^5\) GO Ms. No. 94 of I&CAD (PW-COD) Department dated 01 July 2003 and GO Ms. No. 133 of I&CAD (PW: Reforms) Department dated 22 November 2004
2.1.11 Observations relating to Guru Raghavendra Project

2.1.11.1 Package-97 of GRP

Package 97 included execution of three LI schemes – Duddi, Basaladoddi and Madhavaram LIS. It was awarded (July 2005) for ₹59.99 crore under an EPC contract for completion in 24 months (i.e. by July 2007). However, land acquisition was completed only in June 2011. The work was in progress as on the date of Audit despite time overrun of over nine years. Audit observed the followings in the package:

(i) Preparation of inflated estimate by not availing the exemption of Central Excise Duty – ₹2.70 crore: As per the notification issued (January 2004) by Government of India (GoI), all items of machinery including ancillary equipment and their components/parts required for setting up of water supply plant for drinking and agricultural purposes are fully exempted from payment of Central Excise Duty (CED).

It was observed that in the estimates prepared (April 2006) for the work, the Department provided for CED at 16 per cent for pre stressed concrete (PSC) pipes in the estimates without considering the exemption. This resulted in inflation of the estimate by ₹2.70 crore. Further, the Department also issued CED exemption certificates to facilitate the contractor to avail CED exemption on PSC pipes.

The Department accepted (December 2016) the observation and stated that action was being initiated to recover the same from the agency.

(ii) Provision of diameter of PSC pipes in the estimates in excess of requirement – Non-accrual of savings of ₹1.11 crore to Government: The sanctioned estimate of the work provided for laying of 1100 mm diameter pressure main for a length of 10 Km for Duddi LIS. Agreement entered into with the agency specified the length of pressure main (10 Km) and discharge (1.203 cumecs) without mentioning diameter of pressure main. It was observed that the Department approved the designs of pressure mains for a reduced length of 9.670 Km with 1000 mm diameter and the work was executed accordingly. Due to reduction of diameter of the pipeline by 100 mm and length by 330 meters, there was a saving of ₹1.11 crore. Failure of the Department to ensure the execution of work as per the estimates and absence of appropriate clause in the agreement to take care of variations due to changes in diameter and length of the pipeline led not only to foregoing of

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6 Cost provided in the estimate for 10,000 RMT of 1100mm dia: ₹5.92 crore; cost of work actually executed for 9,670 RMT of 1000mm dia: ₹4.81 crore (worked out as per the rates provided in the same estimate): The difference in cost = ₹1.11 crore
savings of ₹1.11 crore, but also resulted in extension of undue benefit to the contractor.

(iii) **Delay in commissioning due to lack of power supply:** All the three LI schemes under Package 97 were completed during 2013-15 at a cost of ₹66.18 crore. However, dedicated power supply arrangements had not been made available for any of the three lifts till the date of Audit. Though the Department had paid ₹3.87 crore to Andhra Pradesh Central Power Distribution Company Limited (APCPDCL) towards development charges, security charges etc., in February 2011, dedicated power supply arrangements were yet to be made. Due to lack of power supply, Basaladoddi and Madhavaram LIS, which were to serve a total ayacut of 10,661 acres, have not been commissioned. For Duddi LI scheme, a temporary HT connection was arranged (December 2011) from Satanur sub-station. However, as per the Department records, Satanur sub-station supplies power to Mugaladoddi LI scheme also and would be unable to provide power to both the LI schemes simultaneously. Power supply to Duddi LIS was being made available only when Mugaladoddi LIS was not in operation leading to sub-optimal utilisation of Duddi LIS. Thus, lack of dedicated power supply had adversely affected the Duddi LI scheme.

(iv) **Issue of completion certificate without completion of work:** Duddi LIS was to lift water from Tungabhadra River during flood days to serve a gap ayacut of 3000 acres. The Department issued completion certificate in September 2013 subject to condition that the agency had to complete the pending items of works and attend to all rectification/defective works within the maintenance period of two years. However, the Department did not include any penal clause to make the agency accountable in case the works were not completed/repairs were not carried out in time.

The Department observed that pump-1 and pump-2 of the scheme required repairs (November 2013 and January 2014). However, the agency completed the repairs only in June 2014 resulting in loss of working season. As a result, against the requirement of 294 Mcft, the water pumped was 66.54 Mcft during 2013-14. In 2014-15, water pumped was only 38.41 Mcft due to breakdown of pumps. Consequently, out of 3000 acres of targeted ayacut, water was supplied to ayacut of only 442 acres to 551 acres during the period 2013-16. The reasons for underperformance of the scheme were repeated breakdown of pumps and failure of the agency to attend to the repair works immediately. In the absence of any punitive clause, the Department also had no means to ensure that the agency attended to the repairs on time.
2.1.11.2 Pulakurthy LIS

Pulakurthy LIS is also a scheme under GRP which was administratively sanctioned in August 2011 to irrigate 9830 acres gap ayacut under Tungabhadra LLC at a cost of ₹113.26 crore. The work was awarded to a contractor for execution in March 2013 under EPC contract and was scheduled for completion by September 2015. The work is still in progress (December 2016). The following observations are made on the scheme:

(i) **Non-acquisition of land for execution:** As per Government Orders\(^7\), administrative approvals for major and medium irrigation projects were to be given in two stages. Stage-I administrative approvals shall include approval of estimates for acquisition of minimum land required. Stage-II administrative approval shall be issued only after lands were acquired for taking up works without interruption for the first two years.

It was observed that one time approval was given for Pulakurthy LIS in August 2011 instead of in two stages. Proposals were sent to Land Acquisition (LA) authorities for acquisition of 121.78 acres of land required for the entire project during June 2013 to November 2014. The land was not acquired till the date of audit. The Special Deputy Collector LA, HNSS, Kurnool (SDC) intimated (October 2015) the Department that Preliminary Notifications were published for acquisition of 88.96 acres and requested the Department to deposit ₹2.67 crore towards cost of land acquisition to take further action. However, the details of funds made available to LA authorities were not on records.

The situation could have been avoided if the Department had followed the two stage process which would have ensured acquisition of minimum land required before awarding of the project.

(ii) **Blocking up of ₹48.55 crore incurred on procurement of supplies:** Pulakurthy LIS work was scheduled for completion by September 2015. However, only 54.38 per cent (i.e. ₹61.59 crore) of financial progress was made till April 2016. Out of this, an expenditure of ₹48.55 crore was incurred between March 2014 to April 2016 towards supply of Pipes and Electro Mechanical (E&M) equipment. The pipes and E&M equipment procured could not be laid and erected due to delay in acquisition of land. The materials supplied are under custody of the Agency. Thus, faulty planning of the Department in timely acquisition of land resulted in blocking up of ₹48.55 crore.

\(^7\) GO Ms.No.94 of I&CAD (PW-COD) Department dated 01 July 2003
2.11.3 Pulachinta, Soganuru and Chilakaladona LIS

(i) Omission of electrical works in original agreements: The works of three LISs (Pulachinta, Soganuru and Chilakaladona LIS) were entrusted to two agencies under LS contracts in February 2004. However, while preparing the estimates and entrustment of works, the Department omitted some essential electrical items from the scope of work. After a lapse of more than six years from award of the works, the Department prepared estimates with 2009-10 Standard Schedule of Rates (SSR) for the additional work of providing electrical equipment in Pulachinta and Soganuru LIS and concluded (October 2010) supplementary agreements worth ₹80.94 lakh for the same. On completion of works, Pulachinta LIS was commissioned in March 2014 and Soganuru in August 2014.

In case of Chilakaladona, Government instructed (January 2014) the SE to invite bids after preparation of separate estimates. The Department proposed a revised estimate for ₹35.58 lakh. However the Government was yet to accord revised administrative approval for the same. The work was yet to be taken up and the scheme had not been commissioned as of May 2016.

Thus, non-inclusion of electrical equipment in the original estimates/agreements and further delay in taking up these works resulted in delay in completion of the Schemes. Further, there was increase in cost as supplementary agreements had to be entered into on the basis of SSR of 2009-10 and 2014-15. Audit could not calculate the increase in cost due to non-availability of required information with the Department.

(ii) Excess deposit of ₹69 lakh with APSPDCL:\(^8\): In Chilakaladona LIS, the Department applied (December 2004) for two HT service connections for Stage-I and Stage-II lifts. According to the demand notice issued (January 2006) by APSPDCL, the Department paid (February/March 2006) ₹1.16 crore against the demand of ₹1.41 crore. However, the power supply was not provided as the contractor failed to complete the work of laying HT lines. When the Department requested (August 2008) the APSPDCL authorities for according necessary approval of service line, APSPDCL raised (May 2015) a reduced demand for ₹47 lakh without taking into account the already deposited amount of ₹1.16 crore. The Department intimated (June 2015) APSPDCL authorities that they had already paid ₹1.16 crore. After adjusting for the fresh demand of ₹47 lakh, there was an excess payment of ₹69 lakh. The service line has still not been provided (May 2016).

Audit observed that due to delay in execution of Chilakaladona LIS works and non-completion of electrical works even after a lapse of 12 years after

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\(^8\) Southern Power Distribution Company of Andhra Pradesh Ltd. (formerly APCPDCL)
concluding agreement by the agency, an amount of ₹69 lakh was blocked for 10 years (March 2006 to March 2016). There was no evidence to show that the Department made any efforts for refund/adjustment of the excess amount paid to APSPDCL.

2.1.11.4 Observations relating to Pulikanuma LIS

Government accorded (January 2008) administrative sanction for Pulikanuma LIS to irrigate 26400 acres at a cost of ₹261.19 crore. The work was technically sanctioned in April 2008. The work was awarded to a contractor in June 2008 for an agreement value of ₹263.10 crore under EPC contract to be completed by June 2011.

(i) Incorrect provision of ₹one crore for railway bridge in the estimate: As per agreement conditions, a railway bridge was to be executed by the Railway authorities as a deposit work for the Department and the role of the EPC agency was only to prepare the proposals. The Department would process the proposals with Railway authorities for execution.

The IBM estimate of the Pulikanuma LIS included provision of ₹one crore for construction of Railway bridge and tender was invited based on this estimate. However, it was stated in the NIT that the cost of bridge was not included in the bid. The work was subsequently awarded to an EPC agency including the provision of ₹one crore. However, the Department subsequently paid ₹5.14 crore to the Railways for construction of the bridge. Despite this, the Department had not taken any action to recover ₹one crore from the agency.

The Department stated (December 2016) that efforts were being made to recover the amount from the agency.

(ii) Non-accrual of savings due to non-inclusion of cost variation clause for pressure main component: It was observed from the sanctioned estimate that the length of Pressure Main was to be 28000 RMT and was to cost ₹60.20 crore. However, the Department neither specified the length of pressure mains nor included a suitable variation clause in the agreement for adjustment of cost of pressure main according to the actual length executed.

It was observed that the total length of pressure mains approved (July 2009) by the Department and executed by the agency was only 26600 RMT, which was 1400 RMT less than the quantity provided in the sanctioned estimate. In the absence of a suitable variation clause, the cost savings of ₹3.01 crore on account of reduction in work has not accrued to Government.

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9 Quantity as per estimate: 28000 RMT; Quantity actually executed: 26600 RMT; Reduction in length of pressure mains: 1400 RMT; Rate per RMT as per estimate: ₹21500; Total savings: 1400 RMT X ₹21500 = ₹3.01 crore
The Department replied (December 2016) that the basic parameters for pumping stations, as per Government memo (May 2008), would be the locations of starting and ending of pressure mains only and accordingly length was not mentioned. It was also stated that any increase or decrease in the cost of execution of on any component due to implementation of approved design was to accrue to the contractor under EPC system unless there was a change in basic parameters.

The reply was not acceptable as the Department had failed to assess the actual requirement while preparing the estimate. Thus, preparation of estimates without assessing actual requirement and absence of suitable clause in the agreement led to non-accrual of savings of ₹3.01 crore to Government but also resulted in undue benefit to the contractor.

(iii) Delay in commissioning due to delay in approaching Railways for approval: As per the agreement conditions, the EPC agency was to provide 33 KV HT lines from APSPDCL sub-stations to pump house locations, which were to cross the Chennai – Mumbai railway line. Further, as per the agreement conditions, the Department was to take up the issue with Railways and the EPC agency was to follow up on the progress.

Though the work was awarded in June 2008, the Department had not approached the Railways for approval to construct Railway line crossings till the date of audit. Proposals were however sent to APSPDCL for vetting and forwarding to the Railway authorities. The APSPDCL forwarded (April 2016) the line diagram to SC Railway authorities for information rather than approval. The Department has thus not pursued the laying of 33 KV HT line with the Railways for more than eight years and this may delay the completion of the project.

The Department replied (December 2016) that the proposal submitted by the agency was under scrutiny by the Railway authorities.

(iv) Delay in applying for HT power connection: It was observed that after completion of more than six years from the date of agreement, the Department applied (November 2014) for HT power supply for a Contracted Maximum Demand (CMD) of 7540 KVA (at Sathanur Sub-station) and 10106 KVA (at Deverabetta Sub-station) for Pulikanuma LIS Stage-I and II pump houses. The SE, Operation, APSPDCL, Kurnool issued (July 2015) demand notice for ₹2.31 crore and ₹1.77 crore (total ₹4.08 crore) towards development charges, supervision charges and security deposit charges for Pulikanuma Stage-I and II, respectively. The amount was paid in March 2016.

It was observed from the correspondence of the SE, Operation, APSPDCL (January 2016) to the SE, O&M Circle, AP Transco that new HT services to
Pulikanuma LIS were not possible from the 132/33 KV EHT Sub-station (under construction) at Madhavaram as the power was proposed to be utilized for other purposes. Pulikanuma LIS had not received HT connection till the date of Audit.

Thus, the delay of more than six years on part of the Department in applying for sanction of HT power supply coupled with lack of continued pursuance contributed to delay in commissioning of Pulikanuma LIS.

2.1.12 Observations relating to Pattiseema LIS

The contract for Pattiseema LIS was awarded in March 2015 and the work was completed within the target date of March 2016.

As per clause 39.3 of the General Conditions of Contract of the agreement, the cost on any component due to any implementation of approved design should always be on the contractor’s account within the cost of the total contracted amount under EPC until and unless such designs effectively change any of the basic parameters as defined. In such a situation, where there is any revision in design due to changes in the basic parameters, then the modalities for effecting such a change shall be decided with the prior approval of the employer.

However, the contract included terms which turned out to be unduly beneficial to the contractor as there was an increase in cost of the items covered under the cost variation clause though there was no change in basic parameters and there was decrease in cost of items not covered under the clause though basic parameters had changed. Audit observed the following:

(i) Adoption of alternative technology instead of conventional technology resulted in additional cost: As per the IBM estimate, pump house was to be constructed at a cost of ₹147 crore through conventional technology. During execution, the contractor requested the Department to allow it to use RCC Diaphragm Wall technology. The same was approved by the Department. As per the cost estimate furnished by the contractor for construction of pump house by diaphragm wall method, the cost was shown as ₹234.60 crore (excluding tender premium), which was ₹87.60 crore in excess of cost of pump house estimated in IBM. Considering the tender premium of 21.9991 per cent, the additional cost works out to ₹106.17 crore.

This resulted in increase in the cost of construction even though there was no change in the basic parameters of the pump house. Further, there was no time savings since the work was completed in 12 months as stipulated in the agreement. The Department also stated that it was possible to complete the work within the stipulated time i.e., 12 months by adopting the conventional method which could have been completed with lesser cost.
Audit observed that the Government had cleared all the hurdles for execution by completing the land acquisition within the agreement period and a special mechanism was created to approve the designs on fast track basis. Hence, it was possible to execute the work within the stipulated period by adopting the conventional method as contemplated at the time of calling of tender. There was no need to adopt alternative technology and bear the additional cost.

The Department accepted (December 2016) the fact and stated that overall additional burden was only about ₹100 crore. The reply of the Department was not tenable as additional charge on the exchequer was without any additional benefit/change in basic project parameters.

(ii) **Lacunae in framing contract terms resulted in non-accrual of savings to the Government:** As per the basic parameters mentioned in the agreement, 30 Pumps and motors were to be erected with a discharge capacity of eight cumecs each to lift 240 cumecs of water. The cost of pumps and motors and other Electro Mechanical equipment and Hydro Mechanical equipment were adopted from the estimates of Chintalpudi LIS (2008) by the Department to arrive at the estimates by considering ₹2.062 crore per Megawatt as unit rate.

During execution, basic parameters like the head from which water was to be lifted, the number of pumps and the height to which water was to be lifted were changed. However, these items were not included under the cost variation clause. The impact on cost due to these changes could not be calculated as the relevant details were not furnished to Audit. However, it was observed that the power requirement of the pumps was reduced from 123 MW to 113 MW due to these changes. Considering this reduction, there was a saving of ₹20.62 crore worked out by Audit (10 MW x ₹2.062 crore) on the basis of Department’s estimate of ₹2.062 crore per MW. However, the savings did not accrue to Government due to non-inclusion of this component under cost variation clause.

(iii) **Payment of Central Excise Duty on exempted items:** Government of India in January 2004, issued a notification fully exempting all items of machinery, equipment, pipes, etc., required for setting up water supply schemes intended for agricultural or industrial use, from payment of Central Excise Duty (CED). CED was neither a part of IBM nor any provision was made in the estimate in this regard. An amount of ₹32.01 crore was paid to the contractor towards reimbursement of CED on pressure mains executed in the work. Despite availability of CED exemption, the Department included a clause in the agreement that the CED would be reimbursed to the contractor as per actuals paid.
During the exit conference, the Department stated (December 2016) that CED was reimbursed based on the agreement conditions and only on production of invoices by the contractor.

Thus, inclusion of agreement clause for reimbursement of CED despite availability of exemption led to avoidable extra expenditure of ₹ 32.01 crore.

(iv) Incorrect reimbursement of Labour Welfare Cess - ₹ 14.22 crore: As per NIT, the contractor was required to quote his bid considering all taxes, duties, etc. except Central Excise Duty and VAT. The agreement conditions also stipulated that Labour Welfare Cess at the rate of one per cent would be recovered from the gross value of each bill. Thus, the price quoted by the contractor was deemed to be inclusive of Labour Welfare Cess. It was however observed that the Department reimbursed (December 2016) the Labour Welfare Cess of ₹ 14.22 crore to the contractor which was irregular.

Department stated (December 2016) that Labour Welfare Cess was reimbursed as per the agreement conditions. The reply was not tenable as the quoted price was inclusive of all taxes and duties including Labour Cess and there was no condition in the agreement for its reimbursement. This resulted in undue benefit of ₹ 14.22 crore to the contractor.

2.1.13 Observations relating to Pushkara Project

Pushkara LIS was taken up (2003) as there was delay in completion of Polavaram project. The cost of the project originally estimated at ₹ 297.25 crore in 2003. However, during execution, due to several changes in the project and delay in execution of the project, the cost of the project increased (September 2014) to ₹ 674.52 crore. Observations relating to execution and contract management in this project are given below:

(i) Lack of planning in obtaining clearances for crossings on National Highways, Oil/Gas pipelines and Railway crossings: The Department had contemplated to complete the main canal and distributaries by September 2006. The canal system under the project had several crossings on National and State Highways, railway lines, oil/gas pipelines and water pipelines. Execution of work at these crossings required clearances from the concerned authorities. The Department had to make necessary arrangements to ensure that permissions were obtained within the targeted period i.e., September, 2006. It was observed that there were eight NH crossings in the main canal and five crossings on distributary network. There were also Gas Authority of India Limited (GAIL) oil/gas pipeline crossings at two locations on the main canal and 14 locations on distributary network. Similarly, there were Hindustan Petroleum Corporation Limited (HPCL) pipeline crossings at two
locations on main canal and 13 locations on distributaries. The distributaries were also to cross Railway lines at 10 places.

Audit observed that though the Department was required to issue letters to the concerned agencies immediately after awarding the work (i.e., October 2004), it addressed letters to GAIL, HPCL, NH and Railways only during 2006-2009. The Department did not pursue the matter with any of the agencies despite being aware of the deadlines for completion of the work.

The lack of pursuance by the Department added to the delay in completion of the work. As of September 2016, execution of distributaries at seven crossings of gas/oil pipelines was yet to be taken up due to non-obtaining of clearances. The Department accepted that there was delay in obtaining clearances.

(ii) Submission and approval of designs: The work of canal excavation was awarded in October 2004 to a contractor for ₹197.82 crore under EPC contract for completion by September 2006. As per clause 10.2 of additional special conditions of the agreement, the contractor was to submit all designs and layout within the time period as stipulated in the construction programme.

As observed from the construction programme, the drawings and designs of main canal were to be completed by November 2004 and the drawings and designs of the distributaries by March 2005. The designs submitted by the contractor were to be processed at four levels i.e., the EE, SE, CE of the project and the CE, Central Designs Organization (CDO). It was observed that there was delay in submission of designs in respect of 175 structures of main canal and 34 structures of distributaries. There was delay of three to 64 months (from December 2004) in submission of designs of main canal and six to 54 months (from April 2005) in submission of designs of distributaries as shown below:

Chart 1: Time allowed for submission and scrutiny of designs and the actual time taken

\[ 
\text{[Diagram showing time allowed vs actual time taken for main canal and distributaries]} 
\]

Source: As per the information obtained from the Department
There is no specific timeline at CE/CDO level to approve the designs. It took nine to 98 months in submission of 96 designs to the CE/CDO. There was delay ranging from one to 25 months in approval of the designs of 28 structures of main canal. The details of time taken by the Department for scrutiny in respect of distributary system were not furnished to Audit.

Thus, absence of fixed timelines at CE/CDO level for approval of designs led to abnormal delays in approval and consequent delay in project execution. Though the work was stipulated for completion by September 2006, the same is still in progress (June 2016) with a time overrun of more than nine years.

(iii) Undue benefit to the contractor in violation of agreement terms: In the canal package of Pushkara LIS, the NIT/agreement conditions (clause 42.4) stipulated that no price adjustment would be paid for any variation in prices and wages. The work of execution of the canal and its distributaries/field channels was scheduled for completion in September 2006. However, extension of time was allowed on various occasions up to June 2016 on the grounds of delay in handing over of site, objections from farmers due to non-payment of compensation and non-finalisation of design and drawings. Audit observed that on the request of the contractor, the Department made extra payment of ₹21.81 crore (between July 2008 and July 2015) towards price escalation on steel and other materials though it was contrary to the contract conditions.

As per agreement conditions, for all the crossings of canal system at National/State Highways and R&B roads, suitable bridges were to be provided as per the standards and permission of the respective Departments. The cost of these bridges was deemed to have been included in the contract price quoted.

However, Department deleted construction of nine bridges from the scope of work and recovered the allocated amount of ₹6.17 crore. The Department subsequently deposited ₹33.26 crore with NHAI/R&B Department for which Government accorded sanction10. Thus, deletion of the bridges from the scope of original contract and executing them as deposit works through NHAI/R&B led to avoidable additional expenditure of ₹27.09 crore.

The Department stated (December 2016) that due to legal issues in execution, the Government deleted the works from the scope of the contract and entrusted them to NHAI/R&B Department. However, against the agreement conditions, the cost of the structures was borne by the Department instead of by the contractor.

Thus, Department made an additional expenditure of ₹48.90 crore (₹21.81 crore + ₹27.09 crore) on payment of price escalation and additional cost on construction of bridges against the conditions of the contract.

10 G.O.Ms.No.50 Irrigation & CAD (Proj.I) Department, dated 22 September 2014
(iv) Payment of price escalation even after defect liability period: The work of second pump house at Purushothapatnam under Pushkara LIS, was awarded (July 2004) to a contractor under EPC contract for ₹50.26 crore for completion by January 2006. In this EPC contract, the amount agreed to for the work was to be the final amount and there was no provision for price adjustment in the agreement.

The work was completed and completion certificate was issued (September 2009). After five years of completion, based on the representation of the contractor, the Department paid (October 2014) ₹1.57 crore towards price escalation for the work though it was completed five years ago. This was irregular and led to extension of undue financial benefit to the contractor.

Department replied (December 2016) that the Government took a decision to apply the price escalation clause on all ongoing works and since the Pushkara LIS was an ongoing project, price escalation was allowed. However, price escalation was not admissible as per the terms and conditions of the EPC contract. Further, completion certificate for the work was issued in September 2009 and it was not ongoing at the time of payment.

2.1.14 Operation and Maintenance

2.1.14.1 Observations relating to Guru Raghavendra Project

GRP works were taken up for serving an ayacut of 85,790 acres\textsuperscript{11}. The ayacut served during 2011-16 ranged from 7,092 acres (i.e. 8.27 per cent) in 2011-12 to 23,490 acres (27.38 per cent) in 2014-15. Observations relating to operation and maintenance of some of the sub-schemes are given below:

(i) Suguru MI Scheme – Not providing irrigation facilities due to non-taking up of repairs to supply channel: Suguru MI Scheme was initially administratively sanctioned (October 2003) for ₹6.49 crore. The Government accorded (November 2005) revised administrative sanction for ₹8.72 crore. Suguru MI tank was completed (January 2006) to serve 2,925 acres. Out of the total targeted ayacut of 2,925 acres, 800 acres was proposed as new ayacut. However, no evidence was available on record to show that distributary network for this new ayacut was created. The EE, TBPLLC Division, Adoni could not furnish this information, though specifically sought for by Audit.

It was further observed that though the project was to supplement 2,125 acres of already existing ayacut, water was not being supplied to the ayacut from 2009-10 due to damages to the supply channel in the floods that occurred in 2008. The Department had prepared (May 2008) an estimate for ₹1.07 crore for restoration of supply channel. Thereafter, multiple estimates were prepared

\textsuperscript{11} stabilization of 81,662 acres and new ayacut of 4,128 acres
but the same were not approved (May 2016) for the reasons not on record. As per the last estimate prepared (January 2014), the cost of restoration of supply channel was ₹2.13 crore.

Due to non-restoration of supply channel, no irrigation benefits were derived since 2008 from the project constructed at a cost of ₹8.72 crore. Besides, the cost of restoration work increased from ₹1.07 crore (May 2008) to ₹2.13 crore (January 2014) and would increase further with the current SSR.

(ii) Munagala LIS – Not providing water to 1,149 acres in Parla village: The works of Munagala LIS was awarded to a contractor in March 2006 for ₹12.30 crore. The scheme, which was intended to serve an ayacut of 4,365 acres in six villages during Khariff, was completed in July 2012 at a cost of ₹11.88 crore. The work was executed by APSIDC. It took six years to complete the project against the original completion period of 16 months.

Out of the total ayacut of 4,365 acres proposed under the project, distributary system covering 1,149 acres was proposed in Parla Village, Kallur Mandal of Kurnool district. After trial run of the scheme in November 2011, APSIDC requested the Department to restore the distributary system in Parla village for this ayacut. However, the Department had not initiated any action in this regard till the date of audit in spite of issue of reminder (December 2014) by APSIDC. Due to this, ayacut in Parla village remained unserved. Thus, inaction of the Department in taking up restoration work on distributary system in Parla village resulted in sub-optimal utilization of the LI Scheme.

(iii) Absence of Manpower for Operation and Maintenance (O&M): As per terms and conditions of the agreements of irrigation projects, the contractor has to maintain the project/work for a period of two years, after which the Department takes over the project/work.

The Department had taken over Mugaladoddi LIS in February 2013 and Pulachinta LIS in March 2014. Since the Department had taken over the LI Schemes, for operation of pumps and motors for supply of water to ayacut, engaging qualified operational crew was essential. The EE requested (April 2015) the SE for recruitment of 25 qualified O&M crew for maintenance of LI Schemes. However, Audit observed that only 25 unskilled lascars were deployed (August 2015) on outsourcing basis for O&M operations.

Department accepted (December 2016) that required number of qualified staff were not available for carrying out O&M operations of completed LI Schemes and stated that proposals for sanction of permanent staff had been sent to the Government for sanction.
2.14.2 Observations relating to Pushkara LI scheme

The Pushkara LIS was administratively sanctioned\(^\text{12}\) for ₹297.25 crore. The scheme is broadly categorized into three components viz., (i) Head works and lifts, (ii) excavation of main canal (97 Km), distributaries and field channels including necessary CM&CD works and (iii) construction of 11 sub-lifts on main canal.

(i) Non-creation/utilisation of ayacut due to non-completion of works: As per the agreement conditions of canal package, the agency was to create an ayacut of 1.86 lakh acres by 2006. As of June 2016, the headworks/lifts and main canal were completed and the work of distributary network was in progress. The Department stated that total ayacut of 1.45 lakh acres had been created as of June 2016. However, Audit observed the following:

- **Non-completion of field channels:** As per the agreement for the canal, the scope of work included construction of distributary system with micro irrigation network (field channels) so as to irrigate contemplated ayacut of 1.86 lakh acres. Though the Department stated that total ayacut of 1.45 lakh acres had been created, Audit observed that out of 1312.95 Km of field channels required to serve the targeted ayacut, field channels for only 645.73 Km (i.e. 49 per cent) were created as of June 2016, even after 12 years of the commencement of the project.

  The Department accepted (December 2016) the fact and stated that action was being taken to create distributary system in a phased manner.

- **Non-completion of structures:** As per the status reports (May 2016) submitted by the Divisions, 44 structures out of 228 were still incomplete. Non-completion of structures could be one of the reasons for short-creation of ayacut. For example, an ayacut of 446 acres could not be created due to non-completion of a culvert at a road crossing on a distributary (on the main canal at Km 59.363) under Peddanapalli lift. However, completion certificate was issued to the agency in July 2009 with a condition to complete the pending works in the maintenance period of two years. Even after lapse of more than seven years from the issue of completion certificate, neither the agency resumed the work nor did the Department make any alternative arrangement to complete the pending work through other agencies. The Department stated (December 2016) that action was being taken to complete the work.

- **Non-localisation of ayacut:** Once the field channels are constructed and ayacut is created, the ayacut is to be localized in coordination with the

\(^{12}\) Vide G.O. Ms. No. 126 of I&CAD Department dt. 27.8.2003 (for ₹144.25 crore) and G.O. Ms. No. 167 of I&CAD Department dt. 31.10.2003 (for ₹153 crore)
Revenue Department. Further, the AP Farmers’ Management of Irrigation Systems (APFMIS) Act, 1997 provides for encouraging participation of farmers in management of irrigation system by forming Water Users Associations (WUAs).

Audit observed that the project started functioning from 2006 and completion certificates for the portions of canals completed were issued by 2011-12. Though 1.45 lakh acres of ayacut was stated to be created, the ayacut created had not been localised and WUAs had not been formed so far due to non-completion of the project in its entirety. Further, though the EPC agreement conditions stipulated that the EPC agency had to prepare and submit ayacut registers (which specify the details of lands being covered under the ayacut) to the Department, the Department had not obtained the same from the contractor till the date of Audit.

- **Short lifting of irrigation water:** The Pushkara LIS was designed to lift 11.5 TMC of water per year. It was observed that though the lifts were commissioned in September 2009, the total quantum of water actually lifted ranged from 13 to 54 \textit{per cent} of the total capacity during 2011-16, even though 78 \textit{per cent} of total targeted ayacut was stated to be created.

While the targeted ayacut of 1.86 lakh acres has not been created fully due to non-completion of distributary system, even the 1.45 lakh acres of ayacut stated to be created had not been authenticated through localisation process.

\textbf{(ii) Drinking Water facilities:} As per the DPR of the Pushkara LIS, the project also contemplates providing drinking water facilities to a population of 5.23 lakh in 143 villages en route. The Basic Project Parameters in the canal agreement (October 2004) also stipulated providing drinking water to villages en route. However, details of facilities to be provided were not discussed anywhere in the contract. Audit observed that though the main canal had been developed, no drinking water facilities had been extended to the villages as of June 2016.

The Department stated (June 2016) that there were no specific points allocated for tapping of drinking water and since it was an open channel, people were using water as per their requirement. During exit conference (December 2016), it was replied that Department provided only the source and it was the responsibility of Rural Water Supply (RWS) Department to utilize the source.

However, it was observed that there was no correspondence between the RWS Department which is responsible for providing drinking water in the villages and the Water Resources Department to identify the specific tapping points or storage facilities for supplying drinking water. Further, the project had contemplated providing drinking water to the villages and not untreated water.
(iii) **Maintenance of Project system:** In the DPR, the life span of the pumping system including motors (Hydro and Electro mechanical equipment) was taken as 12 years. The equipment was procured between September 2005 and September 2009. As per the Agreement conditions, the project should have been completed in two years. However, Audit observed that the project had not been completed and Extension of Time (EOT) was given for completion of the project up to 2016. Meanwhile, the life of the Electro Mechanical & Hydro Mechanical equipment is about to expire as shown in chart below:

**Chart 2: Remaining life span of the Lifts**

![Chart showing remaining lifespan of lifts](chart.png)

**Source:** As per the information obtained from the Department

On analysis of the dates of procurement, erection and operation of pumps and motors of the pumping system in nine lifts/sub-lifts (out of 13), for which the date of procurement was made available, Audit observed the following:

- Though the pumping equipment of head works of the scheme were procured during 2005 and 2006, all were erected and testing was done with a delay of five to 15 months.

- The life span of Lift-I at Purushothapatnam would expire by January 2019. The depreciated value remaining as of January 2016 was only 25 per cent.

- In seven out of the nine lifts/sub-lifts, the gap between procurement of motors/pumps and erection and testing ranged from six to 39 months. However, in respect of Peddapuram and Dharmavaram LIS, the gaps were 20 and 39 months, respectively. While calculating BC ratio of the project, the annual interest on capital was estimated to be 10 per cent. Interest calculated at 10 per cent on the capital cost of these lifts during the idle period worked out to ₹ 1.24 crore.
Thus, non-completion of the works on time led to non-utilisation of the equipment procured in all these cases.

### 2.1.14.3 Monitoring of the schemes

National Water Policy 2002 stipulates close monitoring and supervision of projects so that works are executed in time and with economy. There should also be a system to monitor and evaluate the performance and socio-economic impact of the project/scheme which is essential to judge their success or failure.

Audit scrutiny revealed that no evaluation was conducted to assess the performance of any of the schemes. Economical viability and efficiency of the LISs were not assessed by the Department. Such studies by a third party would facilitate corrective actions on lapses observed and improve the functioning of the projects.

### 2.1.15 Conclusion

Lift Irrigation Schemes are major sources for supply of water for irrigation, domestic and industrial uses and cater to the needs of drought prone areas. Guru Raghavendra and Pulikanuma schemes were proposed for stabilization of ayacut of Tungabhadra Project and Pattiseema and Pushkara LIS were proposed to derive early benefits due to delay in execution of Polavaram Project. Audit observed that the projects were commenced either without DPRs or with deficient DPRs. The components of the Projects were not synchronised in many cases leading to delay in deriving the benefits. For example, in Pattiseema project distributary systems were not ready while the pumps were commissioned. There was also lack of coordination among various agencies and Departments involved in the execution of the Projects. There were also cases of abnormal delay in approval of designs. As a result none of the selected LIS could achieve the targeted objectives. Audit also noticed deficient contract management leading to excess payments, avoidable additional expenditure, etc. Monitoring on implementation of the projects at various levels was deficient in Guru Raghavendra and Pushkara projects.

### 2.1.16 Recommendations

Audit recommends that:

- DPRs may be prepared with proper survey and investigation to avoid deviations.
- The various components of the projects may be synchronized to ensure utilization of infrastructure after its creation.
➢ The Department may ensure execution of works in accordance with the estimates prepared and include suitable clauses in the agreement to protect its interest in case of major changes in design leading to cost variations.

➢ Timelines may be fixed for approval of designs.

➢ Coordination with NHAI, Power Distribution Companies, Railways and other agencies may be ensured to allow for timely completion of projects.
Chapter - III
Compliance Audit
Chapter-III
Compliance Audit
Agriculture and Cooperation Department

3.1 Implementation of Reforms in Agriculture Marketing System and use of Regulatory Fees collected by State Agricultural Produce Market Committees

3.1.1 Introduction

As per the Seventh Schedule of the Constitution, agriculture markets and fairs come under the State List. For the purpose of regulating agricultural marketing, the erstwhile Andhra Pradesh State had enacted the Andhra Pradesh (Agricultural Produce and Livestock) Markets Act, 1966. The Central Government had proposed a Model Act in the year 2003 for the regulation of Agricultural Marketing in the States. This was to act as a template for legislation regarding the subject in the States.

The Model Act, 2003 inter alia envisaged establishment of private market yards, direct purchase of agricultural produce from agriculturists, promoting and permitting e-trading, promoting direct sale by the producer and contract farming, single point levy of market fee, single registration/ licence for trade/transaction in more than one market and creation of marketing infrastructure from the revenue earned by the Agricultural Produce Market Committees (APMC).


There are 191 Market Committees and 324 notified markets\(^1\) in the State. The Market Committees levy and collect market fee at the rate of one \textit{per cent} ad valorem from the purchasers of notified agricultural produce and livestock for transactions in the notified area. Out of the annual income of Agricultural Market Committees, 10 \textit{per cent} (25 \textit{per cent} from October 2015) of the income is contributed to a fund called Central Market Fund (CMF).

In Andhra Pradesh, Agricultural Marketing Department is under the administrative control of Agriculture and Co-operation Department headed by the Commissioner & Director of Agricultural Marketing, who is assisted by

\(^1\) Source: Outcome Budget of 2015-16 of Agricultural Marketing Department
one Director and other staff. There are 13 District Offices, headed by Assistant Directors of Agricultural Marketing.

Records at the Commissionerate and four selected district offices\(^2\) for a period of five years (2011-16) were examined (January – May 2016) by Audit to assess whether necessary amendments in the State Act have been effected to adopt the reforms suggested by Central Government in Model Act, 2003 and whether the provisions of the State Act have been implemented effectively at field level. In addition to this, utilisation of regulatory fees (Market Fee, Licence fee, etc. collected by AMCs) by Agricultural Marketing Department and 72 AMCs in the selected districts was also examined.

**Audit Findings**

### 3.1.2 Implementation of Model Act Provisions

It was observed by Audit that some of the reforms suggested in Model Act were enacted by the State but not implemented and others had not been enacted as discussed below:

#### 3.1.2.1 Establishment of Private Markets

As per the Model Act, 2003, Private Markets were to be established to promote and develop competitive marketing system in agriculture marketing sector. Accordingly, the State Act was amended in 2005 allowing private persons to establish market yards to organise sale/purchase of agricultural produce. However, as per the rules framed by the Department in May 2006, license fee of ₹50,000 and minimum capital outlay of ₹10 crore were required for establishment of private markets.

Audit observed that even after 11 years, no entrepreneur had come forward for establishing private market and no licences had been issued in the State (May 2016). Except making amendments in the Act and displaying the same in the notice boards of the AMCs, no concrete steps were taken by the Department to promote private markets. No expenditure was incurred on propaganda and publicity of private markets by the Department. The Agricultural Market Committees also had not taken any action to publicise the provisions regarding establishment of private markets as envisaged in the State Act.

The Department stated that efforts would be made to establish such markets.

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\(^2\) Krishna, Guntur, Kurnool and East Godavari
3.1.2.2 Establishment of Direct Purchase Centres (DPC)

As per Section 7(7) of the State Act, Director of Marketing may grant/renew licence to establish Direct Purchase Centre (DPC) in a notified area, with such facilities as prescribed, for making purchases of agricultural produce, livestock and products of livestock from the producers for processing, grading, packing, storing and for sale/export.

Audit observed that in the test-checked districts, no DPCs were established till the date of the Audit. Though the State Act was amended to include the provisions for DPCs, the Department did not make any effort to promote and publicise the provisions for setting up DPCs. So far, no license has been issued to establish any DPC. Thus, the objective of promoting alternative agricultural marketing system with involvement of private parties could not be achieved. Due to this, the farmers were deprived of the benefits envisaged in the Act.

3.1.2.3 Inefficient e-Trade Markets

Section 26 (5) of the Model Act envisage promotion of e-trading. The market committee may establish a regulatory system, create infrastructure and undertake other activities and steps needed thereto. The State Act was amended in 2011 to incorporate the provision of e-trade market. The Rules framed (February 2013) by the Department stipulated that the person seeking licence to establish such market should have minimum net worth of ₹10 crore. In addition, licence fee of ₹50,000 and Bank Guarantee for ₹25 lakh were also to be furnished to the Department.

The Department issued licence (November 2013) to the National Commodity and Derivatives Exchange Limited3 (NCDEX) to establish e-market. As per Government Order through which licence was issued, the agency was required to commence its operation from December 2013. NCDEX was to arrange warehouses and other facilities before commencement of actual business. Further, the Commissioner and Director of Marketing was to inspect the arrangements made.

Though the agency was required to give the details of warehouses, etc. to the Department, neither the agency furnished the details nor did the Department insist for the same. This indicated absence of monitoring of activities of the agency by the Department.

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3 NCDEX is India’s leading agricultural commodity exchange.
(i) Lack of Facilities for e-Trading

The Act was further amended in October 2015, according to which the Director of Marketing had to identify and notify markets for conducting online trading through electronic platform and the AMCs were to provide infrastructure for such markets. For this, 11 market yards in the State were identified for establishing e-trade markets in the first phase, out of which 10 e-trade market were established during October-November 2015. Out of the 10 e-trade markets, five\(^4\) are in the test-checked districts. As reported by the Department, turmeric, chilli, groundnut, sunflower, etc. were being sold through these e-trade markets.

However, the AMCs were operating e-trade markets without providing essential services like grading, quality certification, collateral financing, transportation etc. as required under the Act and no action was taken by the Department to ensure the availability of essential services in the e-markets. Though e-trade markets have been established, no details regarding grading of product have been provided for information of the bidders. In the absence of these facilities, the traders from other areas could not trade remotely.

(ii) Limited Access

The purpose of introducing e-trade market was to create a state-wide virtual market linking all the primary agricultural market places. However, Audit observed that the markets established during the first phase were accessible only within the jurisdiction of the AMC. Only traders having licences with the respective AMCs have been trading in the e-trade markets. Moreover the present system does not allow the traders to trade without physically visiting the market yards due to non-availability of details regarding product quality and grading. The bidders have to physically verify the products available in e-trade markets.

This defeated the very purpose of establishing e-trade markets and prevented healthy competition. For instance, in Guntur AMC (largest revenue collecting market yard in the State), where e-trading of Chilli started in October 2015, out of the total 257151 lots traded upto March 2016, 240043 lots (93.35 \textit{per cent}) received only single bids, 16842 lots (6.55 \textit{per cent}) received double bids and only 266 lots (0.1 \textit{per cent}) received three or more bids. No steps were taken by the Department to involve traders from other parts of the State/country.

\(^4\) Guntur – Guntur AMC, Duggirala AMC; Kurnool – Kurnool AMC, Yemmiganur AMC, Adoni AMC; East Godavari – Nil; Krishna – Nil
(iii) **Continuation of Commission Agents**

The objective of e-trade markets was also to limit the role of middlemen/commission agents in the market. However, as reported by the Department, except in AMC Duggirala, the commission agents were functioning in the remaining four AMCs, where e-trade system had been implemented. All transactions were made with the involvement of the commission agents even in these e-trade markets and farmers had to pay commission to the agents at rates (ranging between two to four *per cent* of sale value) prescribed by AMCs. Further, no mechanism was available to ensure that the payment to farmers was made on the day of transaction itself. No initiative was taken to credit the payments to farmers’ bank accounts in these e-trade markets.

The Department stated that the commission agents had arranged for display of produce brought by the farmers, proper weighing of the produce and had disbursed the sale proceeds to farmers, after deducting their commission. It was also stated that steps would be initiated to credit the payments directly into farmers’ bank accounts. The reply was not tenable as the reforms were intended to reduce the role of commission agents and as per the State Rules (Rule 56 and 67), AMCs were to arrange for these facilities in case the farmers preferred to sell their produce without employing commission agents. Moreover, no action was also taken to collect the account details of farmers for direct credit of payments.

**3.1.2.4 Direct sale**

As per Model Act 2003, no commission agent shall act in any transaction on behalf of an agriculturist-seller. The Model Act also stipulated that commission charges were to be paid by the purchaser of the agricultural produce and no amount towards commission was to be deducted from the sale proceeds payable to the agriculturist/seller.

However, in Andhra Pradesh, the Act or the Rules have not been amended in line with the Model Act. Due to non-adoption of the provisions of the Model Act, the farmers (in four out of five AMCs in the test-checked districts), paid commission charges amounting to ₹ 466.67 crore during the period 2011-12 to 2015-16 to agents at the rates prescribed under the by-laws of the respective AMCs. Had the above provisions of Model Act been adopted, payments of commission charges by farmers could have been avoided. AMC Duggirala which had banned the operation of commission agents in 1989 has been functioning efficiently without involvement of commission agents.

It was further observed that there was lack of uniformity regarding levy of commission charges and it varied among the AMCs. For example, the
commission charged on chilli was two per cent in AMC Guntur whereas the same was four per cent at AMC Kurnool.

The Department replied that commission rates were fixed based on the by-laws of the AMCs. However, as per the State Rules (Rule 73), the Director of Marketing is the authority for approval of all market charges and hence, the Director should have ensured uniformity in levy and collection of commission charges in various AMCs.

3.1.2.5 Contract Farming

Model Act 2003 provides for promotion of ‘Contract Farming’. The provisions enable direct sale of farm produce to contract farming sponsors without routing it through market yards. The Model Act provides for exemption of market fee on such contract farming transactions.

Government had amended the State Act in 2005 in line with Model Act. However, the provision for exemption of market fee on contract farming transactions was not included in the amendment.

Audit observed that Department had not issued any licence for contract farming so far (September 2016). Except for making amendments and displaying them in the notice boards of AMCs, no steps were taken by the Department to implement the scheme of contract farming.

Department stated that no sponsor had come forward to enter into contract farming agreements. However, initiatives like exemption of market fee in contract farming could have made contract farming more attractive to potential sponsors.

3.1.2.6 Non-Constitution of the State Agricultural Marketing Board

The State Rules had a provision for setting up of an Agricultural Marketing Advisory Board to advise the Government/Market committees on effective implementation of the State Act/Rules, utilization of Central Market Fund, promotion of orderly marketing of notified commodities, review of working of regulated markets and bringing uniformity in marketing practices in all the regulated markets. However, no such Advisory Board had been constituted till the date of Audit.

Further, the Model Act provided that the State Government may constitute an Agricultural Marketing Board for coordinating the activities of markets and for overall development, promotion and regulation of agricultural marketing.
However, the State Government had not amended the State Act on these lines and no Agricultural Marketing Board was constituted. In March 2008, the Department submitted a proposal for amending the State Rules and setting up of a State Agricultural Marketing Board to bridge the gap between the market committees and Government and to overcome the issues pertaining to agricultural marketing. However, the Government did not accept the proposal stating that no changes were required in the prevailing system.

### 3.1.2.7 Composition of Market Committees

The Model Act provides for direct election of members of the Agricultural Marketing Committees from the cultivators/farmers and registered traders. It further provides for election of the Chairman by the elected members of the market committees.

However, the State Act has not been amended in line with the Model Act. Section 5 of the State Act provides for the nomination of the Chairman and Members of Market Committees (from the category of growers, holders of livestock and traders) by the Government in consultation with the Director of Marketing, instead of election. The members and chairmen of the AMCs in the State are being nominated by the Government, which is against the spirit of the reforms and the Model Act.

(i) **Irregularities in constitution of Market Committees**

During the test-check of 13 AMCs (40 per cent AMCs in Kurnool and East Godavari Districts. Details of nominations in respect of Krishna and Guntur district were not furnished to Audit), it was noticed that the Government had forwarded (during 2014-15) the lists containing the names of the Chairmen and all other members to be nominated to the Commissioner. The Commissioner forwarded the same to the district offices. In turn, the District Officers resubmitted the panel lists, duly adding more names to the lists received from the Government and subsequently, all the names originally forwarded by the Government were notified without any change. In one case, a person was nominated to the Chairmanship of Mandapeta AMC by the Government in spite of the Department being aware that he was a defaulter and had not paid conversion fee for an illegal layout (as per the records of Revenue Department).

(ii) **Nomination of Trader Members**

The Andhra Pradesh (AP&LS) Markets Act (Section 5(ii)) provides for nomination of three members by the Government in consultation with Director of Marketing from among the licensed traders in the notified area.
During the scrutiny of records in the test-checked AMCs (13 AMCs), it was seen that most of the nominated members (20 out of 39 members in 13 AMCs) in the category of ‘Trader Members’ had made no transactions prior to their nomination. Out of these, trader licences to 18 members were issued after the receipt of the initial list of names from Government for nomination as committee members and in two cases, licences were issued just a day before receipt of their names from Government.

It was also observed that in case of three functional markets in Kurnool district, seven out of nine members nominated against the category of ‘Trader Members’ were Commission Agents as the Act included the Commission Agents too under ‘Trader Members’. The nomination of commission agents in the committees was against the spirit of Model Act.

3.1.2.8 Public Private Partnership (PPP)

The Model Act provides for setting up and promotion of public private partnership in management of agricultural markets for carrying out extension activities viz., collection, maintenance and dissemination of information in respect of production, sale, storage, processing, prices and movement of notified agricultural produce. For this, development funds were to be utilised by State Agricultural Marketing Board either on its own or through public private partnership.

Audit observed that no proposal to amend the State Act to incorporate provisions of Public Private Partnership was submitted to the Government so far.

3.1.3 Implementation of Provisions of the State Act

Audit observed lacunae in implementation of the provisions of the State Act which are discussed below:

3.1.3.1 Operation of excess licensees

As per Government orders, market committees are to consider issuing of fresh commission agent licenses only if sufficient space/shops were available in the market yard to conduct transactions. The commission agents are allotted shops in the compound of the market yards. In Kurnool AMC, 217 licences were issued against 163 shops which was against the Government orders and is tantamount to multiple agents operating from the same shop/space.

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\(^5\) G.O.Ms. No.260 of Agriculture & Cooperation (AM.IV) Department, dated 28 September 2010
3.1.3.2  Non establishment of required Market Yards

As per the recommendations of the National Commission on Farmers 2004, a regulated market yard should be available to the farmers within a radius of five Km (i.e. one market for market area of about 80 square Km) to enable easy access. Based on the above recommendations, 2000 regulated markets should be available in the State.

It was observed that regulated markets were available within a radius of 13 Km and there were 301 market yards (including sub-market yards) available in the State (99 were in the four sample districts).

As per the State Act/Rules, the AMCs are required to provide infrastructure facilities to facilitate trade in the market yards. Out of the 99 market/sub-market yards available in test-checked districts, the Department furnished information in respect of only 15 yards (in East Godavari and Kurnool districts). Nine out of 15 market yards did not have the basic infrastructure like auction platforms, godowns, office building, etc. Details of the remaining 84 market yards/sub-market yards were not furnished by the Department.

3.1.3.3  Constitution of AMCs without requisite Market Yards

Out of 72 AMCs in the four test-checked districts, only 62 AMCs had market yards. The remaining 10 AMCs had no market yards. The role of these AMCs was limited to collection of market fee on the agricultural produce purchased by the traders in the notified areas under the jurisdiction of the respective AMCs.

3.1.3.4  Under-utilisation of market yards

Out of the 99 market yards (including sub-market yards) constructed by 72 AMCs in four test-checked districts to regulate trade through tender/auction sale, farmers and traders have been visiting only nine market yards for the sale/purchase of agricultural produce (as per the details provided by the Department). In the remaining 90 yards, no wholesale/auction trade of agriculture produce was conducted during the period covered by audit.

- During the year 2011-16, only 0.50 per cent of the total market fee (₹237.77 crore) collected by the 20 AMCs of East Godavari district related to transactions in their market yards. The remaining 99.50 per cent market fee was collected by these AMCs on sales that had taken place outside their market yards. This shows that the volume of sale of agricultural/livestock produce in the market yards was meagre.

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6 Eight of these were in East Godavari district and two in Guntur.
• In Krishna district, no market fee was realised for the sale of agricultural produce inside market yards through wholesale/auction sale. This implies that all the produce of the farmers in Krishna district was sold outside market yards without direct monitoring by the AMCs. Details of transactions inside the market yards in Guntur and Kurnool Districts were not furnished to Audit.

• The Director of Marketing or the AMCs had not placed any mechanism to monitor trading that takes place outside market yards. The Director of Marketing also did not have even the details of trading that took place both inside and outside the market yards.

The Department replied that most of the farmers were small and marginal farmers who would take loans from middlemen/traders to meet their farming, social and other needs. Their produce was in turn sold to these middlemen/traders. Further due to lack of transport, the farmers were depending on middlemen/traders.

However, the objective of the Act was to prevent the role of middlemen. Thus, both the Department and the AMCs had failed to promote and publicise the benefits of trading inside the markets which is reflected in the insignificant volume of trade inside the market yards of the AMCs.

3.1.4 Utilisation of Regulatory Fee

Out of the annual income of AMCs, 10 per cent (25 per cent from October 2015) is contributed to the Central Market Fund (CMF) administered by the Director of Marketing. As per the State Act/Rules, the CMF was to be utilized for providing Grants-in-Aid/loans to market committees, expenditure on maintenance of the Fund, grading, market intelligence, publicity, development works, staff, purchase of properties, etc.

The remaining income retained by the AMCs is to be utilized by them for establishment of markets, providing facilities, staff salaries, publicity, etc.

3.1.4.1 Non utilisation of Central Market Funds (CMF) on Development Activities

Audit observed that CMF was mainly utilised for meeting establishment and office expenditure of staff and facilitating loans/funds to other Departments/Agencies. During the period 2011-12 to 2015-16 (except for the year 2012-13, the details of which were not furnished to Audit), expenditure of ₹6050.19 lakh was made out of CMF out of which ₹5682.47 lakh (93.9 per cent) was incurred on establishment and office expenditure and 5.8 per cent was provided as loans to AMCs, as shown below:
Table 3.1 - Details of expenditure from Central Market Fund

(₹ in lakh)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total expenditure</th>
<th>Pay &amp; Allowances/office expenses</th>
<th>Loans to AMCs</th>
<th>Market Intelligence/Grading/Publicity/Seminars</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-12</td>
<td>1766.94</td>
<td>1556.37</td>
<td>200</td>
<td>10.57</td>
</tr>
<tr>
<td>2012-13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013-14</td>
<td>1877.22</td>
<td>1721.22</td>
<td>150</td>
<td>6.00</td>
</tr>
<tr>
<td>2014-15</td>
<td>1135.93</td>
<td>1134.78</td>
<td>0</td>
<td>1.15</td>
</tr>
<tr>
<td>2015-16</td>
<td>1270.10</td>
<td>1270.10</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6050.19</strong></td>
<td><strong>5682.47</strong></td>
<td><strong>350</strong></td>
<td><strong>17.72</strong></td>
</tr>
</tbody>
</table>

Source: Information furnished by the Department

Only 0.3 per cent of the total expenditure was incurred on activities like propaganda and publicity, training, grading, etc., which are important for the promotion of marketing of agricultural products. Moreover, the records relating to the expenditure (training, grading, propaganda and publicity) were also not furnished to Audit.

3.1.4.2 Diversion of Central Market Funds

As per Section 16 of the State Act, the Central Market Fund (CMF) can be utilised for the purpose of grant-in-aid to newly constituted market committees; grant-in-aid to deficit market committee for a period not exceeding three years; grant of loan to the market committee and such similar or allied purposes as specified by general or special order.

However, substantial amounts from CMF were diverted to other Departments/agencies in the form of loans/grants for purposes not covered under the State Act/Rules. During the period from 1996-97 to 2013-14, loans amounting to ₹305.62 crore and grants amounting to ₹54.25 crore were given to various Departments/agencies from CMF (total: ₹359.87 crore) though this was not permitted under the Act.

In addition, out of the total loans of ₹305.62 crore, the Departments/agencies had repaid only ₹54.21 crore to the Marketing Department leaving a balance of ₹251.41 crore (April 2016).

In respect of grants, the recipient Departments/agencies had furnished utilisation certificates (UCs) for ₹26.88 crore (out of ₹54.25 crore). These agencies had neither refunded the remaining amount of ₹27.37 crore to the Marketing Department nor furnished UCs for the same. Despite this, no action was taken by the Department for recovery of balance amount.
3.1.4.3 Application of Market Committee Funds

The year wise details of total market fee collected and expenditure incurred by the AMCs in the State from 2011-12 to 2014-15 are given below:

Table 3.2 - Details of market fee collected and expenditure incurred by AMCs

<table>
<thead>
<tr>
<th>Year</th>
<th>Income</th>
<th>Expenditure</th>
<th>Surplus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-12</td>
<td>367.81</td>
<td>311.49</td>
<td>56.32</td>
</tr>
<tr>
<td>2012-13</td>
<td>384.78</td>
<td>309.14</td>
<td>75.64</td>
</tr>
<tr>
<td>2013-14</td>
<td>501.89</td>
<td>365.94</td>
<td>135.95</td>
</tr>
<tr>
<td>2014-15</td>
<td>533.03</td>
<td>357.76</td>
<td>175.27</td>
</tr>
<tr>
<td>Total</td>
<td>1787.51</td>
<td>1344.33</td>
<td>443.18</td>
</tr>
</tbody>
</table>

Source: Information furnished by the Department

Thus, funds were available for providing essential facilities for trading/development activities. Audit observed the following:

3.1.4.4 Non-utilisation of funds on development/promotional activities and diversion for unrelated activities

As per records furnished to Audit, market fees amounting to ₹1787.51 crore was collected during 2011-15 by the AMCs. Out of this, an amount of ₹1344.33 crore was spent by them.

In test-checked districts, it was observed that expenditure incurred by AMCs was mainly towards meeting their establishment/office expenditure (45 per cent, including the advances paid to staff) and for construction of godowns in market yards (23 per cent). No expenditure was incurred on providing facilities/activities like grading, standardization, quality certification services, publicity/propaganda to encourage sale inside market yards, promotion of private markets, contract farming, direct purchase centres, etc. which are important for the growth of agricultural marketing activities in the State and to motivate farmers to trade inside the market yards.

The Empowered Committee of State Ministers in charge of Agriculture Marketing Reforms had also suggested incorporation of a provision in the State Act to prohibit the utilisation of market funds for any purpose other than marketing infrastructure development (in its final report January 2013). No action was taken by the State Government to implement the same.

It was seen that AMC funds were diverted to other agencies like APMARKFED, Agriculture Department, Fisheries Department, Tobacco Growers’ Association, etc. In test-checked districts, a total amount of ₹135...
crore was diverted during the period 2001-11 as loans to different Departments/agencies which was pending for adjustment as of July 2016.

3.1.4.5 Construction of godowns without assessing requirement

As per the information furnished by three out of four test-checked districts\(^8\) there are 321 godowns in the AMCs of these districts. However, the godowns available with AMCs were not fully utilised by them.

A scrutiny of details of vacant godowns in East Godavari, Kurnool and Krishna districts for the year 2015-16 showed that 76 godowns with a total capacity of 50615 MTs have remained unoccupied for eight to 12 months and 33 godowns with capacity of 43490 MT remained vacant for four to seven months during 2015-16. Despite large number of godowns remaining unutilised, AMCs continued to construct godowns without ascertaining the requirement. In May 2015, based on the proposal submitted by the Department, the Government accorded administrative sanction for construction of 35 new godowns for ₹37.82 crore under various AMCs in the State. Out of these, three godowns with a total capacity of 5000 MTs were sanctioned to three AMCs\(^9\) in East Godavari and Kurnool districts. However, it was observed that five godowns (total capacity: 2800 MTs) already existing in these AMCs were lying vacant continuously for more than 11 months during 2015-16.

3.1.4.6 Non-payment of dues to farmers

Under the Model Act and the State Act, the AMCs are to ensure payment of the sale proceeds on the same day of transaction. The State Rules provide for payment of sale proceeds to the seller on the same day. However, it was seen that as of May 2016, an amount of ₹9.82 crore pertaining to the sale proceeds of *subaabul* wood had not been paid by the purchaser, Sirpur Paper Mill to 319 farmers in Jaggaiahpeta and Nandigam AMCs in Krishna District. The sale had taken place in 2014. AMCs had however collected market fee on the same transactions.

The Department stated that the transactions were not done in market yards as the same were purchased directly from the farmers at private weighbridges. The reply of the Department was not acceptable as the AMCs had failed to ensure payment to the farmers even after collection of market fee.

\(^8\) Details of godowns for Guntur district were not furnished to Audit in full shape.
\(^9\) AMCs at Rajahmundry and Ramachandrapuram in East Godavari district and Nandikotkur in Kurnool district
3.1.4.7 Poor implementation of schemes

Section 15 (viii) of the State Act allows the AMCs to expend the Market Committee Funds on schemes for extension of cultural improvement of notified agricultural produce, livestock and products of livestock within notified areas. The AMCs in the State implemented Rythu Bandhu Pathakam and Rythu Bheema Pathakam.

(i) Rythu Bandhu Pathakam

In order to prevent distress sales of agricultural produce, the scheme Rythu Bandhu Pathakam (Pledge Loan Scheme) was introduced, wherein farmers are provided interest free loan of up to 75 per cent of the value of the crop produce pledged, subject to a maximum of two lakh rupees (one lakh rupees up to September 2014). The term of loan is limited to 180 days and AMCs are required to store the crop so pledged once they are harvested.

Audit observed that while there are 65.75 lakh (86.27 per cent) marginal and small farmers in the State, during the period from 2011-12 to 2015-16, only 2371 farmers on an average were benefited every year under the RBP Scheme. This indicates that the scheme was being implemented poorly.

(ii) Rythu Bheema Pathakam (Insurance scheme)

Rythu Bheema Pathakam, an insurance scheme for the farmers, weighmen and cartmen connected with the market yard, was started in June 2003. Under the scheme, the AMCs are to pay the insurance amount to the claimant or the legal heir in case of accidental death/disability of functionary.

It was observed that as per Government orders on the insurance scheme, the AMCs were to maintain and update annually the list of all the farmers who sold at least one quintal of produce in each of the previous three years. However, list of eligible farmers was not being maintained by the AMCs. Due to this, Audit has no assurance that the farmers who could have received benefits under the scheme were even aware of it.

Audit observed that only two individuals who were working in AMCs had received insurance benefit in the test-checked districts and no farmers had availed the benefit in the last five years (2011-16). Though the Department had paid benefit to only two individuals, in the absence of details of farmers, Audit could not ascertain whether all the beneficiaries were benefitted from the scheme.

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10 Introduced in 1982, as pledge finance scheme and renamed as Rythu Bandhu Pathakam in 1995
3.1.5 Conclusion

Though the State had amended its Act in line with the Model Act to implement important market reforms like Private Market, Contract Farming, Direct Purchase Centre, e-Trade Market, etc., it failed to attract entrepreneurs/sponsors due to lack of publicity, non-exemption of market fee for contract farming, etc. As per Model Act, the commission charges were to be paid by the buyer of the agricultural produce. However, the State Act was not amended and the farmers were still paying commission charges. The existing provisions were not being implemented in the true spirit of reforms as envisaged in the Model Act. Further, the CMF and AMC funds were being diverted to other agencies/Departments instead of providing basic facilities which can reduce the dependence of farmers on middlemen.
Transport, Roads and Buildings Department

3.2 Andhra Pradesh Road Sector Project

3.2.1 Andhra Pradesh Road Network

The Andhra Pradesh Roads and Buildings Department (RBD) has its jurisdiction over National Highways (4,913 Km), State Highways (6,167 Km), Major District Roads (19,183 Km) and Rural roads (15,567 Km) totaling 45,830 Km. Out of these total road network, the Core Road Network (CRN\textsuperscript{11}) consists of 14,721 Km, which is being managed and maintained by the Andhra Pradesh Road Development Corporation.

In order to reduce the growing funding gap in road sector, a Loan Agreement was entered into (January 2010) between the International Bank for Reconstruction and Development (IBRD) and Government of India (GoI). After bifurcation of the State, the loan share fixed in respect of the present Andhra Pradesh State is 197.50 Million US Dollars, including expenditure incurred on the project during the period before bifurcation. As per the agreement, the project was to be completed by June 2015. After bifurcation of State into Andhra Pradesh and Telangana, it was rescheduled to May 2017.

3.2.2 Project Components

As per the loan agreement, the project comprises four components - (a) Road Improvement, (b) PPP facilitation support, (c) Institutional Strengthening and (d) Road Safety.

3.2.3 Implementing agencies

The Roads and Buildings (R&B) Department was entrusted with the overall responsibility for implementation of the project. Audit of implementation of the Project was conducted to ascertain whether the Project components were effectively implemented in a timely manner and the objective of providing better quality, higher capacity and safe roads to users in a sustainable manner through enhanced institutional capacity had been achieved.

Audit examined the project records since inception (January 2010) to March 2016 at Roads and Buildings Department, Headquarters Office\textsuperscript{12} and eight field Divisions\textsuperscript{13} during the period from December 2015 to June 2016.

\textsuperscript{11} Roads with high traffic intensity and strategic importance selected from State Highways and Major District Roads were designated as Core Road Network.

\textsuperscript{12} Chief Engineer (R&B), CRN & Managing Director, APRDC, Hyderabad

\textsuperscript{13} R&B Divisions at Visakhapatnam, Rajahmundry (RDC), Nellore, Gudur, Tirupati, Nandyal, Kurnool (RDC) and Ananthapuramu
Thirteen out of 26 Long Term Performance Based Maintenance Contracts (LTPBMC) and all the seven upgradation packages were also examined.

**Audit Findings**

Audit observations on individual components of the Project are discussed below:

**3.2.4 Road Improvement Component**

The component comprised (a) upgradation of 302 Km of prioritized roads in two phases and (b) maintenance of 4301 Km under LTPBMC.

Audit observations on implementation of this component are discussed in the subsequent paragraphs.

**3.2.5 Upgradation Packages**

**3.2.5.1 Shortfall in taking up road stretches for upgradation**

The AP Road Development Corporation (APRDC) had engaged a consultant (2007) for conducting feasibility studies and preparation of preliminary designs of 38 selected road sections for a total length of 2002 Km. Based on the consultant’s report, 14 road stretches with a total length of 302 Km were selected for upgradation under APRSP. Against the 302 Km length mentioned in the loan agreement, roads for a total length of 295 Km were actually entrusted under upgradation contracts. No reasons were found on record for not taking up the remaining 7 km road. The Department had not stated specific reasons for short award of work.

**3.2.5.2 Delays in award of works / procurement of goods**

As per the Procurement Plan agreed to between the Government of Andhra Pradesh and the IBRD, there were 104 items to be procured under the project. Out of these, 54 items were test-checked in audit. The Procurement Plan prescribed the methodology of procurement of goods, works and consultancy services, estimated costs of different items and timeframes for their procurement.

The Procurement Plan was to be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity. It was observed from the records that though the procurement plan was prepared/updated, the timelines stipulated were not adhered to. This led to delay in completion of various components/sub-components of the project.
Audit observed delays at various stages of procurement of works, goods and services as discussed below:

(i) Execution of works: There were a total of 42 works to be executed under Road Improvement and Road Safety components of the Project. Out of these, 23 were test-checked. Audit observed that only four works have been completed till the date of Audit (June 2016). Out of these, two were completed within the original time frame. The reasons for delay in completion of the remaining 21 works are as shown below:

<table>
<thead>
<tr>
<th>Status of works</th>
<th>Reasons for delay</th>
</tr>
</thead>
</table>
| Two works were completed with delays of 3 to 31 months | In the upgradation work of Chittoor-Puttur Road, there was a delay of 31 months due to several changes (July 2011 - November 2014) in the scope of work during execution.  
In the Black Spot Improvement work in Visakhapatnam district, there was delay of three months due to delay in handing over of site and slow pace of work in ghat section. |
| The remaining 19 works were at various stages of execution | In three upgradation packages\(^\text{14}\), the Department had cancelled (May 2010) the initial bids due to low competition and high bid prices. Substantial time was lost in review/revision/approval of estimates and invitation of fresh tenders and these works were finally awarded during November 2011 - April 2012.  
In the remaining 16 works, there were delays ranging from four to 61 months in investigation and designing, preparation and approval of estimates and invitation/finalization of tenders. All these works were in progress. |

(ii) Procurement of goods: In goods procurement, out of 29 items, 18 items were test-checked in audit. Out of these one item (renovation of office building and procurement of furniture), for which a provision of ₹ 1.4 crore was made, was not taken up due to bifurcation of State. Audit observed that there were delays in procurement in the remaining 17 items. It was observed that procurement of four items was completed with delay of 10 to 30 months, as shown below:

<table>
<thead>
<tr>
<th>Item</th>
<th>Reasons for delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) computer, (2) printers and (3) photo copiers</td>
<td>There were delays of 23 to 30 months due to delayed finalization of estimates by the R&amp;B Department.</td>
</tr>
<tr>
<td>(4) breath analyzers and speed laser guns</td>
<td>There was delay of 10 months due to delay in finalization of specifications and preparation of estimates in consultation with Transport Department.</td>
</tr>
</tbody>
</table>

The process of procurement of the remaining 13 items was still going on with delays ranging from 18 to 26 months. The reasons for delay are as follows:

\(^{14}\) KD 02 (Kurnool - Devanakonda road), MJ 03 & MJ 04 (Mydukuru - Jammalamadugu road)
### Item | Reasons for delay
--- | ---
(1) Modernization of check post at Renigunta, (2) Electronic weigh bridge at Renigunta and (3) Inspection and Certification Centre at Kadapa | There were delays ranging from 23 to 25 months due to delay in finalization of specification and preparation of estimates in consultation with Transport Department.

(4) CT scan equipment and (5) medical equipment for Trauma Care Centre at Rajampeta | There were delays ranging from 23 to 25 months due to delay in invitation of tenders.

(6) Ambulance | There was delay of 26 months in signing the contract after finalization of the bids.

(7) and (8) Enforcement equipment for Police Department, (9) Cranes, Light motor vehicles and Interceptor vehicles, (10) Furniture and (11) Computers/printers | There were delays ranging from 18 to 24 months, due to delays in design, investigation and finalization of estimates.

(12) Development of management information system | There was delay of 25 months due to delay in design, investigation, finalization of estimates and preparation of bid documents.

Procurement of another item ‘supply and installation of Road Database Management Software (cost: ₹2.93 crore)’ has not been completed. Audit could not work out the delay in this case, as no timelines had been fixed by the Department for this item.

#### (iii) Procurement of Consultancy services:
As per Procurement Plan, there were 26 consultancy services to be procured out of which Audit test-checked seven consultancy services. Out of these, procurement of one consultancy service (for preparatory services for maintenance contracts) was completed within the prescribed time. In the remaining six consultancy procurements, delays ranged from 15 to 48 months. Two Supervision Consultant services engaged for supervision and quality control of upgradation contracts were being continued beyond their original agreement periods, due to non-completion of the road works.

The remaining three consultancy services for Road Management System, Road User Satisfaction Survey and Implementation Support Services under Institutional Strengthening Action Plan (ISAP) component were also going on due to bifurcation of the states and other delays attributable to the Department, as discussed in subsequent Paragraphs 3.2.6.4; 3.2.8.1 and 3.2.8.2.

#### (iv) Procurement of consultancy for road data collection:
The Department concluded six contracts for road data collection in 13 districts. It was observed that in four contracts, there was delay ranging from two to four months in entrustment due to delay in invitation of bids. Collection of data under one
contract (in Srikakulam, Vizianagaram and Visakhapatnam districts) was completed within the scheduled time. In another contract (in Guntur and Prakasam districts), collection of data was completed with a delay of two months due to delay in signing the contract after finalization of tenders.

From the above, it was evident that delays persisted at every stage from investigation to completion and this resulted in time and cost overrun as discussed in subsequent Paragraphs 3.2.5.3; 3.2.8.1; 3.2.8.2 and 3.2.9.3. This indicated that the Department did not adequately plan for implementation of the Project before approaching the IBRD for loan.

The Department attributed (July 2016) overall delay in procurement to non-submission of specifications/ requirements and estimates for goods and equipment to be procured by the line Departments. This indicated lack of co-ordination among the Departments.

3.2.5.3 Slow progress of works

Under the Road Improvement component of the project, the Department took up upgradation of roads for a total length of 295 Km. These works were divided into seven packages and were awarded during August 2009\(^{15}\) to September 2014. The status of these works as of July 2016 was as follows:

<table>
<thead>
<tr>
<th>Name of the Road (Package No.)</th>
<th>Agreement value (₹ in crore)</th>
<th>Month of award/Target date</th>
<th>Progress as of July 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chittoor–Puttur Road (CP-01)</td>
<td>113.09</td>
<td>August 2009/March 2012</td>
<td>Completed</td>
</tr>
<tr>
<td>Kakinada-Rajahmundry Road (KR-07)</td>
<td>200.54</td>
<td>February 2013/March 2016</td>
<td>5%</td>
</tr>
<tr>
<td>Kurnool-Devanakonda Road (KD-02)</td>
<td>133.54</td>
<td>September 2014/October 2016</td>
<td>55%</td>
</tr>
<tr>
<td>Pedana-Nuzvid-Vissannapet Road from Km 7.000 to Km 58.920 (PNV-08)</td>
<td>165.34</td>
<td>August 2012/March 2015</td>
<td>21%</td>
</tr>
<tr>
<td>Pedana-Nuzvid-Vissannapet Road from Km 62.250 to Km 95.460 (PNV-09)</td>
<td>82.48</td>
<td>July 2012/August 2014</td>
<td>50%</td>
</tr>
<tr>
<td>Mydukuru-Jammalamadugu Road from Km 153.000 to Km 171.000 (MJ-03)</td>
<td>65.21</td>
<td>January 2012/March 2014</td>
<td>90%</td>
</tr>
<tr>
<td>Mydukuru-Jammalamadugu Road from Km 177.400 to Km 194.670 (MJ-04)</td>
<td>53.56</td>
<td>April 2012/June 2014</td>
<td>61%</td>
</tr>
</tbody>
</table>

Source: Information furnished by the Department

As can be seen from the above Table, six out of the seven works were still in progress, though their original target dates were long over. Audit observed the following:

\(^{15}\) Upgradation of Chittoor-Puttur road was awarded before the date of concluding loan agreement with the IBRD, but forms part of the project.
(i) Upgradation work of Kakinada – Rajahmundry Road (KR-07):

- **Delay in completion:** This package consists of two sections (Section-I: 31.000 Km and Section-II: 30.600 Km). As per the contract conditions, the section-I and section-II were to be completed by September 2015 and March 2016, respectively. On scrutiny of records, it was observed that the land required for section-I was handed over to the contractor by February 2014. In respect of section-II, out of the total length of 30.60 Km, the Department had handed over land for a stretch of 22.64 Km in a phased manner (March – June 2016). Despite providing interest free mobilization advance and complete land for section-I and part of land for section-II, the contractor did not show progress of work. The actual work executed (July 2016) was only 5.40 per cent for which an amount of ₹7.09 crore was paid (February 2016).

- As per the records produced to Audit, the IBRD has now proposed (June 2016) for deletion of package KR-07 from the scope of the project and the State Government may have to complete the balance works from its own resources.

- **Non levy of delay damages:** A Construction Supervision Consultant (CSC) engaged (December 2011) to supervise the upgradation package works issued many notices to the contractor (KR-07) for speeding up the pace of work. Owing to non-response from the contractor, the CSC recommended (April 2014 and April 2015) termination of the contract. However, instead of terminating the contract, the Department granted (March 2016) interim Extension of Time (EOT) for section-II up to August 2016 at the request of the contractor, without levy of damages of ₹20.05 crore leviable as per agreement. Since the delay in execution was attributable to the contractor as per the correspondence made by the CSC, non-levy of penalty led to extension of undue benefit of ₹20.05 crore to the contractor.

The Department stated (July 2016) that the contractor had requested for further EOT upto March 2017 and a decision on EOT and delay damages would be taken as per recommendations of the CSC.

- **Non recovery of mobilization advance:** It was also observed that as per the contract conditions, the Department had paid (March and June 2013) interest-free mobilization advance of ₹30.08 crore to the contractor. As per the agreement conditions (Clause 14.2.a), recovery of mobilization advance was to commence after 30 per cent progress was achieved. However, recovery of mobilization advance had not commenced even after lapse of more than three and half years of its drawl by the contractor. This resulted in blocking of the mobilization advance with the contractor.
The Department replied (July 2016) that it could not commence recovery of mobilization advance as the value of work done was less than 30 per cent of contract price. The reply was not acceptable as the Department had failed to ensure proportionate progress as per the time lines. Further, since the proposal for termination of contract was under consideration of the Government, the recovery of the mobilization advance may be difficult.

(ii) Upgradation work of Kurnool - Devanakonda Road (KD-02): In this package, the contractor failed to execute the work as per agreement conditions though land for the entire stretch was handed over (January 2012) by the Department. The progress of work achieved by the contractor was only 1.27 per cent against the planned progress of 24.69 per cent, by the end of July 2013. An amount of ₹75 lakh was paid to the contractor. The Department terminated (July 2013) the contract under clause 15.2 and 15.4 of the agreement according to which the extra cost involved in balance works completed through another contractor had to be recovered from the first contractor. After termination, the Department took more than one year to re-entrust the remaining work. The Department awarded (September 2014) the balance work to another contractor at an agreed value of ₹133.54 crore for completion in 24 months involving extra cost of ₹63.41 crore. Against the recoverable amount of ₹63.41 crore, only ₹5.81 crore was available with the Department. It may, however, be pointed out here that according to agreement conditions, the extra cost involved in balance work being completed through another contractor had to be recovered from the first contractor.

As of July 2016, the new contractor had executed only 55 per cent work in 20 months from the commencement date. Considering the slow pace of execution, completion of the balance 45 per cent work before the end of loan period (May 2017) seems doubtful.

(iii) Upgradation of Pedana-Nuzvid-Vissannapet road (PNV-08): This work was awarded (August 2012) to a contractor for ₹165.34 crore, for completion by March 2015. The Department could acquire land pertaining to only 51.95 per cent of the road stretch as of August 2016. It was observed that though the Department had handed over land for 46 per cent of the road stretch by November 2014, the contractor executed only 21.44 per cent work by February 2016. An amount of ₹30.23 crore was paid to the contractor. The Department terminated (February 2016) the contract under clause 15.2 and 15.4 of the agreement according to which the extra cost involved in balance works completed through another contractor was to be recovered from the first contractor. The remaining work was divided into three packages and tenders were floated (April 2016) at a total estimated cost of ₹231.66 crore, involving extra cost of ₹96.55 crore. It was observed that as per the tender notice, the time stipulated for completion of balance works was 15 months. As of
September 2016, the works were not awarded due to non-receipt of approval from the IBRD. Thus, with only eight months of the loan period remaining, the possibility of completing the balance work within the loan period is remote and utilization of IBRD loan assistance fully may not be possible.

(iv) Upgradation of Pedana-Nuzvid-Vissannapet road (PNV-09): The work was awarded (July 2012) to a contractor for ₹ 82.48 crore, for completion by August 2014. As per the agreement, the Department was to hand over the complete road stretch to the contractor by February 2013. As observed from the Construction Supervision Consultant (CSC)’s report (January 2015), the work on 6.35 Km road (out of a total of 33.208 Km) was affected due to non-payment of compensation to the land owners. The compensation was paid to the land owners and handing over of entire stretch was completed only in March 2016. While the land compensation issue contributed to the delay in execution of work to some extent, the contractor also did not show the desired progress of work and only 50 per cent progress had been achieved as of July 2016. As reported (July 2016) by the CSC, the slow pace of work was due to the contractor’s inability in mobilizing funds. However, the Department did not levy delay damages of ₹ 8.25 crore on the contractor as per agreement. At this pace of progress, the work may not be completed before the project closure period.

(v) Upgradation of Mydukuru-Jammalamadugu road (Package Nos. MJ-03 and MJ-04): The work of package MJ-03 was awarded (January 2012) to a contractor for ₹ 65.21 crore for completion by March 2014. Though the Department had handed over (August 2012) the complete road stretch within the time stipulated in the agreement, the work had not been completed even after time over-run of 28 months. As of July 2016, the contractor could complete 90 per cent of the work. However, delay damages of ₹ 6.52 crore were not levied on the contractor for slow progress of work.

Similarly, MJ-04 package was awarded (April 2012) to a contractor for ₹ 53.56 crore for completion by June 2014. As per the agreement, the Department was to hand over the complete road stretch to the contractor by December 2012. It was observed that, out of the total stretch of 17.59 Km, the Department could hand over a total length of 15.91 Km to the contractor in a phased manner during April 2012 to June 2014. Road stretch of 1.68 Km was still to be handed over. As of July 2016, the progress of work achieved was only 61 per cent and completion of this package work before May 2017 appears doubtful.

Thus, while the delays in acquiring lands and handing over of site delayed the progress of works in four packages, slow pace of work by the contractors coupled with the Department’s failure to levy delay damages/terminate the
contracts and to re-entrust the balance works in a timely manner, led to non-completion of the upgradation packages.

Besides, in respect of KD-02 and PNV-08 packages, which were terminated, the cost of works increased by ₹63.41 crore and ₹96.55 crore, respectively. The Department stated (July 2016) that in the case of KD-02, the extra cost had already been notified for commencement of arbitration and in the case of PNV-08, the amount would be recovered through arbitration.

3.2.6  Long Term Performance Based Maintenance Contracts

The RBD had taken up 26 works across various districts in Andhra Pradesh under Phase-I and II under LTPBMC which provided for maintenance of CRN. The stated economic benefits of these works were savings in vehicle operating costs, travel time, distance and maintenance costs. While seven works under Phase-I were completed by March 2014, 19 works under Phase-II were nearing completion.

As per the project agreement, the Department had to maintain a length of 6241 Km which was revised to 4301 Km after bifurcation of the State.

3.2.6.1  Lack of definite criteria for selection of road stretches for Maintenance component works

Under the road maintenance sub-component of APRSP, Department had planned 6241 km\(^{16}\) of CRN, which included 4890 km roads developed under AP State Highway Project, AP Economic Restructuring Project and ‘Maintenance component’ of another IBRD Project. However, the criteria adopted for selection of the remaining 1351 Km were not furnished to Audit.

3.2.6.2  Deficient planning in selection of roads for maintenance

Audit observed that some of the roads which were taken up for maintenance under this project were later deleted from maintenance contracts on ad-hoc basis for taking up widening/improvement works under other schemes. Out of the 2011 Km of road length covered under the test-checked LTPBMC works, 413.036 Km were upgraded as National Highways and another 59.172 Km were taken up for widening/improvement by the State Government. The details are shown in Appendix 3.1. The initial inclusion of these road stretches in the maintenance contracts and subsequent deletion indicated lack of proper planning in identification of road stretches for maintenance under this Project. Both these lengths of roads were deleted from the scope of the project and the Department had not evolved any replacement plan for the packages, though the terms of the loan as well as the agreement did not prohibit taking up of

\(^{16}\) Out of 6241 Km of CRN proposed under combined State, 4301 Km pertains to successor State of Andhra Pradesh.
other reaches for maintenance. This resulted in deletion of stretches from LTPBMC packages and short utilization of loan in respect of the extent of the length deleted.

For example, the LTPBMC Package no. 33, consisting of 107.860 Km of length, in Ananthapuramu District, was awarded to a contractor (October 2011). During the course of contract, the package was cancelled by the Department due to declaration of a major stretch 96.550 Km out of the total length of 107.860 Km (i.e., 89.51 per cent) as National Highway (74.400 Km) and taking up of widening work (22.150 Km) under Normal State Plan. This resulted in closure of the contract, midway, by concluding a mutual closure agreement (June 2015).

Thus, lack of proper planning in selection of roads for maintenance led to subsequent deletion of stretches of road after awarding the works and consequent short utilization of the loan.

3.2.6.3 Non-recovery of excess payment

In LTPBMC package no.1 (Visakhapatnam division), an amount of ₹4.04 crore was paid (during 2009-2014) to the contractor towards price escalation on bitumen.

However, the Third Party Quality control (TQPC) consultant had intimated (August 2014) the Department that only ₹2.58 crore was due for payment to the contractor. Excess amount of ₹1.46 crore was paid due to incorrect adoption of bid date. The bid date of 02 May 2008 was incorrectly adopted by the Department, instead of 15 July 2008, which resulted in incorrect adoption of increased rates. This was also confirmed by the Chief Engineer (November 2014) while issuing instructions to reconcile the same.

Though the matter was brought to the notice of the divisional authorities by the TPQC Consultant in August 2014, no action was taken to recover the excess amount paid. The Department replied (March 2016) that it was pursuing the matter with the contractor.

3.2.6.4 Conducting of Road User Satisfaction survey

APRDC had appointed (December 2010) a consultant to carry out the Road User Satisfaction Survey (RUSS) for all the packages taken up under the Project. The objective was to improve road transport in the State by giving senior management in the RBD an insight into the issues raised by the road users and thereby enhance future strategic and operational decisions. The survey was to be conducted twice, i.e. before implementation (RUSS-1) and during implementation (RUSS-2) of works. The consultant had submitted
As per Task-3 of contract agreement, the consultant was to present the survey findings to the senior management of the RBD and other relevant decision makers in the Government and the findings were also to be made public. The consultant had earlier submitted (August 2015) his final report with certain recommendations. A stakeholder meeting was also conducted (August 2015). An updated Report was submitted (June 2016) exclusively for Andhra Pradesh. The consultant was asked to revise the Report and submit it by June 2016. As per the Progress Report of APRSP for July 2016, the consultant’s report was under review.

The Department stated (July 2016) that the final Report was under review. However, the survey results may become irrelevant due to the passage of time.

### 3.2.7 PPP Facilitation Component

The component was included to strengthen the capacity of the Government to develop selected high traffic density corridors under Public Private Partnership (PPP), via toll revenues and viability gap support from the Government of India. Audit observed that the Department could not identify any high traffic density corridor in the State for development under PPP arrangement.

### 3.2.8 Institutional Strengthening Component

This component was to provide targeted technical assistance, training and advisory services for strengthening of APRDC, with requisite capacity for its responsibilities in managing the CRN and aiding in various aspects of project implementation, including the Asset Management Program, the Governance and Accountability Action Plan (GAAP) and the Institutional Strengthening Action Plan (ISAP) and associated monitoring and coordination etc.

#### 3.2.8.1 Non implementation of recommendations of consultant on Institutional Strengthening Action Plan

Government of Andhra Pradesh had accorded administrative sanction\(^\text{17}\) (February 2011) for the work “Consultancy Services to Institutional Strengthening Action Plan (ISAP) implementation” for ₹5.50 crore. The work was awarded (March 2011) to a consultant to carry out the above services for ₹6.97 crore (later revised to ₹9.49 crore) for completion by December 2013.

The Consultant had submitted (February 2014) their recommendations for the combined State. After bifurcation of the State, GoAP took 15 months to extend (September 2015) the services of the consultant for 20 months to refine

\(^{17}\) G.O.Ms.No.28, TR&B R(IV) Department, dated 18.2.2011
the report according to the requirement of the successor State of Andhra Pradesh. The contract was awarded for ₹4.29 crore.

The Department stated (July 2016) that a report tailored to the requirements of the new State was being developed by the consultants and assured of implementation of the recommendations in the new Report to be submitted by the consultant as and when approved by the Government.

### 3.2.8.2 Non-compilation of Road Data and non-commencement of Road Management System

As a part of Institutional Strengthening, establishment of a Road Management System (RMS) was proposed to improve the Road Development Corporation (RDC)/RBD’s planning for both capital and maintenance budget received from various sources. Development and implementation of RMS involved the following three activities:

(i) Collection of data regarding the physical condition of roads across the State, using automated data collection equipment;

(ii) Procurement of Road Database Management Software; and

(iii) Feeding the physical road data and other details like soil parameters, traffic volume, etc. as inputs into the Road Database Management Software to generate annual roll-out plans for capital and maintenance works based on the annual budget available.

The Department engaged (April 2011) a consultant for an agreed fee of ₹6.18 crore for providing technical assistance and establishment/operationalize the RMS in the combined AP State. The contract was for 72 months i.e., 42 months for establishment of RMS and 30 months for implementation support.

The Department concluded (March 2014) another agreement with a vendor for ₹2.48 crore for supply and customization of Road Database Management (RDBM) Software. The vendor has supplied the software and the same was being customized/configured as per the Department’s requirements (May 2016).

As per the agreement concluded with the RMS consultant, the Department was to collect and provide the road data to the consultant. It was observed that the Department could not provide road data to the RMS consultant in time due to delay in taking a decision as to whether to purchase automated equipment to collect the data or to outsource the same and further delays in the tender process. Though the initial decision (June 2012) was to procure the equipment, this was abandoned due to high bid prices quoted when tenders were called for the same. Later, it was decided to outsource the data collection by dividing the work into two packages and tenders were invited. However, the tenders were cancelled (May 2015) as none of the bidders met the qualification criteria.
Finally, the work was divided into six smaller packages and entrusted during January to September 2016. Out of the 13 districts, collection of data pertaining to five districts (two packages) has been completed as of July 2016. Collection of data pertaining to the remaining eight districts (four packages) had not been completed. Due to non-collection of road data for all the districts, the objective of generating the annual roll-out plans has not been achieved.

Further, due to delay in implementation of RMS, the Department had to conclude (February 2016) an amended agreement with the RMS consultant for a further amount of ₹ 6.26 crore for the present AP State (against original agreement value of ₹ 6.18 crore for the combined State). This was in addition to ₹ 1.29 crore already paid to the consultant. As per the revised agreement, the RMS is now scheduled to be established by June 2017 and thereafter the maintenance support would be provided for only 12 months against 30 months stipulated in the original agreement.

Thus, delay in taking a decision as to whether to purchase automated equipment to collect the data or to outsource the same coupled with further delays in the tender process led to the delay in collection of road data, resulting in delay in establishment of RMS besides increasing the cost thereon.

3.2.9 Road Safety component

This component was to help in providing safer road corridors by initiating measures to reduce road accidents on major corridors by assisting the concerned agencies to:

(a) Undertake ‘demonstration projects’ on selected CRN corridors;
(b) Carry out an extended black-spot improvement program;
(c) Implement institutional and policy action plans for improving the State’s road safety responsibility framework and capacities; and
(d) Evolve a policy and strategy taking into account results of demonstration projects, etc., for improving road safety in the entire State.

3.2.9.1 Development of a demonstration corridor

The demonstration (demo) corridor was to be a model corridor to be developed with multi sector road safety measures adopted by different Departments viz. Roads and Buildings, Transport, Police and Medical and Health.

A length of 138 Km in Renigunta-Rayalacheruvu road was taken up for development as a demo corridor at an estimated cost of ₹ 10.85 crore. The Department estimated that the average deaths on this road were 0.6 per Km. It
was proposed to improve eight curves, 10 junctions, one truck lay bay and strengthening of three stretches under the demo project. These were to be re-designed to the extent possible and the overall visibility was to be improved.

The following observations are made in this regard:

3.2.9.2 Improper estimation of curves/junction improvements

The curve and junction improvement works on Renigunta-Rayalacheruvu road was awarded (January 2014) to a contractor for an agreed value of ₹11.87 crore. The work was completed (June 2015) and an amount of ₹9.81 crore was incurred resulting in a savings of ₹2.06 crore. On scrutiny of estimate and workslip, it was observed that in five sub-works, curve/junction improvements were not taken up and in another five sub-works, only road furniture\(^{18}\) was provided as the work of improvements had already been taken up by R&B division, Rajampeta under different agreements with State Government funds. It showed that there was no synchronization of works amongst the R&B Department and APRDC, as the work identified under the Project was taken up by R&B Division, Rajampeta.

Evidently, while preparing the estimate, the Department had not taken sufficient care in identifying the curves/improvements to be corrected. In two cases, the Department found that no improvements were required, in two cases Right of Way\(^{19}\) was not available and the Department did not initiate any action to obtain the same. In another case, the reason for deletion of improvement was not on record.

In another stretch\(^{20}\), though strengthening of 1.2 Km was provided for, only 300 meters were strengthened. The reasons for reduction were not on record.

These clearly show that the work had been taken up without proper survey, which led to deletion/modification of the work later. With proper planning, more roads could have been improved with the savings.

3.2.9.3 Non procurement of goods/services for demonstration corridor

Besides curve/junction improvements by the RBD, the development of Renigunta-Rayalacheruvu road as demo road corridor also involved providing road safety measures in co-ordination with different Departments viz. Transport, Police and Medical and Health. These Departments were to furnish their requirement, technical specifications and estimates for goods and services to facilitate procurement of the same by RBD.

\(^{18}\) Includes cautionary sign boards, reflective sheeting, reflective road studs, junction boards, galvanized barriers, concrete kerbs, name boards and synthetic surface painting

\(^{19}\) Right of Way means the land stretch reserved for the purpose of public transport/road.

\(^{20}\) Km 60.500 to Km 62.300 of Renigunta-Rayalacheruvu road
It was observed that the procurement of goods/services for Medical and Health, Police and Transport Departments were still in progress (July 2016). These Departments had modified their estimates and specification of their requirements multiple times leading to delays.

Construction of a Trauma Care Centre, procurement of ambulances, medical equipment etc., at Rajampeta; procurement of enforcement vehicles, construction of one Police Highway Outpost, construction of an electronic weigh bridge and modernization of checkpost at Renigunta; and establishment of Inspection and Certification Centre, Kadapa had not been completed.

The Medical Department expressed their inability to provide human resources to operate/maintain the medical equipment. IBRD did not agree with the proposal of the Police Department to engage a private firm for providing human resources for operation of Highway Outposts, enforcement equipment, interceptors, cranes, computers, etc. Transport Department had not taken a decision on the manner of manning their equipment/infrastructure. It procured speed laser guns and breath analyzers and delivered (June 2015) the same to Police Department. However, reports relating to usage/evaluation of the equipment were not submitted to IBRD by these Departments.

The R&B Department attributed (July 2016) the delay to involvement of various Departments and lack of coordination/non-finalization of requirements in time.

There were delays of 10 to 26 months in procurement of items relating to demo corridor due to lack of co-ordination among the stakeholder Departments and the demo corridor may not be completed before the loan closure period (May 2017), if this issue is not sorted out.

3.2.9.4 Award of evaluation contract without completion of demo corridor

A consultant to evaluate the improvements in Road Safety in demo corridor and document the lessons learned thereof and to assess the effectiveness of stakeholder Departments and implementation process in the project was appointed (August 2015) at an agreed cost of ₹ 2.05 crore with a stipulation to submit the report in 12 months.

As stated above, the Departments have not completed their procurement process and the equipment already purchased were not being put to use due to lack of qualified manpower. This implies that awarding of evaluation study for an incomplete road safety work was unjustified. As of March 2016, an amount of ₹ 83 lakh had already been paid to the consultant.
3.2.9.5  Delay in formulation of Road Safety Policy

As per the agreement with IBRD, the Road Safety Policy of the State was to be developed after completion of two demo corridors utilizing the lessons learnt from their implementation by July 2016.

However, only one corridor was selected for development as demo corridor and the work was still in progress as of July 2016, which has delayed the formulation of Road Safety Policy.

The objective of formulation of a Road Safety Policy before loan closure may not be achieved due to the delays observed in development of the demo corridor.

3.2.9.6  Non-evaluation of black spot improvements

A black spot is defined as a location on a road where accidents are highly concentrated. A black spot could be a curve, intersection or a regular stretch of a road and could vary in length, but it is usually about 200 to 400 metres. It was proposed (February 2014) to take up six black spot improvement works under the component against which five were taken up due to paucity of funds. Each work was to cover multiple black spots.

Though the works were completed (February-June 2015), no evaluation study was taken up to ascertain the reductions in number of accidents to assess the effectiveness of the improvement works.

The Department accepted (July 2016) the Audit observation and stated that the SEs had been instructed to evaluate the performance.

3.2.10  Conclusion

The Project was taken up to remedy the funding gap in road sector in the State. However, significant deficiencies were observed in implementation of the Project. The implementation of the project was adversely affected due to delays in procurement of works/goods/services, deficient planning and slow pace of works. Out of seven upgradation works taken up under the project, only one was completed and there were delays in the remaining six works. Considering the current pace of execution, some of the upgradation works are unlikely to be completed within loan closure period and there is a risk of under-utilization of IBRD loan assistance. In two upgradation works, cost of balance works were yet to be realized from the contractors. Liquidated damages were not levied in respect of three upgradation works despite delay in execution of work by the contractors. Road stretches for Long Term Performance Based Maintenance Contracts (LTPBMC) were identified without any specified criteria, road stretches were deleted from the scope of
contracts due to their conversion as NHs or having been taken up under other State schemes and alternate roads were not taken up in lieu of the deleted stretches. The objectives of Institutional Strengthening component had not been achieved as the final reports of the consultants are yet to be submitted. Delay in taking a decision whether to purchase automated equipment to collect the data or to outsource the same coupled with further delays in the tender process led to the delay in collection of road data. This hampered the development of Road Management System. Items relating to Demo corridor remained incomplete due to lack of coordination among line Departments. Thus, the goals contemplated under the Project may not be fully achieved before the end of loan period (May 2017).
Industries and Commerce Department

3.3 Development of Textile and Apparel Parks

3.3.1 Introduction

As part of implementation of government policies, plans were formulated to establish Textile and Apparel Parks in Andhra Pradesh starting from 2002-03. The objective of setting up of these Parks was to increase textile exports and to generate employment opportunities in handloom and textile sector. The agencies chosen to implement them were the Directorate of Handlooms and Textiles (DHT), Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC) and private parties through Special Purpose Vehicles (SPV)\(^{21}\). Currently, there are 11 such Parks in the State as detailed in Appendix 3.2. Out of the 11 Parks, three Parks had received financial assistance from Government of India (GoI) under the Scheme for Integrated Textile Parks (SITP)\(^{22}\) and one Park under the Apparel Parks for Exports Scheme (APES)\(^{23}\). The remaining seven Parks were taken up with State Government funds.

Audit reviewed five Parks, one developed by a private party with Government support (Brandix India Apparel City Private Limited (BIACPL)), two by APIIC (Apparel Export Park (AEP), Proddutur and Vizag Apparel Export Park (VAEP)) and two by DHT (Textile Park, Mylavaram and Textile Park, Rayadurg). BIACPL and VAEP had received GoI assistance under SITP and APES, respectively. The funds allotted, released and expenditure incurred on these Parks are detailed in Appendix 3.3.

Records maintained at the offices of the Assistant Directors of the Parks being developed by DHT, Zonal Managers of the concerned Zones in case of Parks developed by APIIC and at the office of the SPV were reviewed (May - June 2016) to ascertain the implementation of these parks and achievement of the targets. Significant audit findings are discussed in the subsequent paragraphs.

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\(^{21}\) SPV in these cases is a Corporate Body registered under the Companies Act formed with the representatives of local industry, financial institutions, State and Central Government.

\(^{22}\) SITP was launched in July 2005 to create new textile Parks of international standards at potential growth centres. Under the scheme GoI support by way of grant or equity will be limited to 40\text{ per cent} of the project cost subject to a ceiling of ₹ 40 crore for Parks.

\(^{23}\) APES was intended to impart focused thrust to setting up of Apparel manufacturing units of international standards at potential growth centres. Under the scheme, GoI gives 75\text{ per cent} of the capital expenditure limited to a maximum of ₹ ten crore incurred by the State Government on the infrastructural facilities of the Apparel Parks.
3.3.2 Preparation of faulty Detailed Project Reports

Andhra Pradesh Industrial and Technical Consultancy Organization Limited (APITCO)\(^{24}\) had prepared the Detailed Project Report (DPR) of three Parks\(^{25}\) developed by DHT / APIIC and in the case of the Park developed by SPV, Infrastructure Leasing and Financial Services Limited (IL&FS) prepared the DPR. The DPRs envisaged creation of common infrastructure and common facilities in the Parks. The DPR in respect of Textile Park, Rayadurg was not furnished to Audit.

Deficiencies were observed in two of the DPRs prepared as discussed below:

3.3.2.1 Textile Park, Mylavaram

For the Textile Park, Mylavaram, the Department had identified land to an extent of 62.18 acres in Mylavaram and asked the APITCO to conduct feasibility study. During feasibility study (October 2004), APITCO had reported that it was not feasible to develop textile park in the land identified by the Department since it was a remote place, not having required rail and road connectivity or provision for electricity supply. Despite this, APITCO had subsequently prepared (November 2004) a DPR for the development of textile park in the above land. It was stated in the DPR that the land surface was plain and involved minimum development cost. The site also had easy accessibility to water due to proximity to Mylavaram reservoir and availability of groundwater. The potential for immediate investment and employment generation were also stated to be favourable factors.

Audit observed from the records that the Water Resources Department could not provide water from Mylavaram reservoir and at present, the Textile Park was depending on a borewell to meet its requirements, as discussed in Para 3.3.5.1. Further, though the DPR stated that the location had potential for immediate investment by the entrepreneurs, only 43 out of 118 plots were allotted to entrepreneurs and no unit had been established till the date of audit.

Thus, the Park could not be set up due to selection of improper site and non-availability of water.

\(^{24}\) APITCO was given the consultancy to evaluate the need and feasibility of setting up a Textile Park.

\(^{25}\) Textile Park, Mylavaram; Vizag Apparel Parks for Exports, Visakhapatnam; and Apparel Export Park, Proddutur
3.3.2.2 Apparel Export Park, Proddutur

In respect of the AEP at Proddutur, Kadapa district, a DPR was prepared (2004) for establishment of AEP on 50 acres of land. GoAP had sent (July 2004) proposals to GoI seeking funding under Apparel Export Park Scheme. However, GoI returned the proposals (November 2004) pointing out several deficiencies in the proposal. GoI stated that the land identified was only 50 acres against 150-250 acres prescribed in the Scheme guidelines, the export orientation was only marginal and the DPR lacked details of the proposed garment units/investment/production/marketing, etc. The Master Plan had also not been indicated.

The State Government started development of the AEP with its own funds by acquiring (April-November 2007) 76.17 acres of land without preparing any fresh DPR duly addressing the deficiencies pointed out by GoI. Due to this, the Park has not received any investor as discussed in Para 3.3.9.5.

3.3.3 Delay in completion of the projects

Audit observed significant time overruns in completion of the Parks ranging from 23 to 156 months as detailed in Appendix 3.4.

- While one Park, BIACPL, was partially completed with a delay of 23 months, three Parks viz., Textile Park, Mylavaram (125 months), Textile Park, Rayadurg (156 months) and Apparel Export Park, Proddutur (115 months) were not completed (July 2016), even though these were proposed to be completed by February 2006, June 2003 and December 2006 respectively, due to non-transfer/delay in transfer of lands in the name of DHT. Such transfer was necessary to enable the DHT to allot/transfer the individual plots in these Parks to entrepreneurs for setting up textile/apparel units.

- In two Parks viz., Apparel Export Park at Proddutur and Textile Park at Rayadurg, non-development of infrastructure was also a factor for delay in completion of the Parks.

- Non-strengthening of external road connectivity by Government in BIACPL and non-establishment of Common Effluent Treatment Plant by the developer (SPV) in VAEP contributed to non-performance of these Parks at optimal level. The occupancy in these Parks was 76 per cent and 56 per cent, respectively and there was time overrun of 23 months and 139 months respectively, in these Parks.

These issues are discussed in detail in the subsequent paragraphs.
3.3.4 Cost overrun

Out of five Parks reviewed, in case of one Park, viz., Textile Park, Proddutur, audit observed cost overrun of ₹2.51 crore (i.e. 87 per cent). Only two components viz., land acquisition and internal roads had been completed at a cost of ₹5.40 crore whereas the cost projected for the components was ₹2.89 crore.

DHT had initially assessed (July 2005) the land cost at ₹2.25 crore for 150 acres. However, due to delay, the land cost increased and an expenditure of ₹3.28 crore was incurred for acquiring 76.17 acres of land (April and November 2007).

In the DPR, cost of laying the internal roads was estimated at ₹64 lakh. The land for the Park was acquired in April/November 2007. However, the internal roads were completed only in March 2010 with an expenditure of ₹2.12 crore. The delay led to cost overrun of ₹1.48 crore on internal roads.

Audit could not compute the cost overrun on the remaining components/Parks as they were ongoing (May-June 2016).

3.3.5 Non-provision of utilities

As per the Textile and Apparel Promotion Policy of 2005, the State Government was to give necessary assistance in providing power, water and other utilities to the Integrated Textile Parks developed by private parties. The Government was also responsible for providing these facilities in the Parks being developed by DHT and APIIC. Once the units in the Parks became functional, the developers were required to maintain the utilities by collecting service and user charges from unit holders in the Parks.

Audit observed that there were deficiencies in provision of utilities in the five Parks. Textile Park, Mylavaram had problems with water supply. AEP, Proddutur did not have water and electricity supply connections. Textile Park, Rayadurg and BIACPL had problems with external road connectivity. In VAEP, the work relating to the Common Effluent Treatment Plant (CETP) was not taken up. The Park-wise details are given below:

3.3.5.1 Textile Park, Mylavaram

Textile industries required large quantity of water for various processes. The Textile Park at Mylavaram was planned to accommodate 118 textile units. The water requirement of this Park was estimated to be 2.84 lakh litres per day as per the DPR. Water was proposed to be drawn from Mylavaram dam. However, Audit observed from the records that the Government had expressed (May 2007) its inability to allocate water from Mylavaram reservoir due to
non-availability of water. Irrigation Department was requested (2007) to explore the possibility of diversion of water from other sources. Response of the Irrigation Department and further correspondence, if any, in the matter was not forthcoming from the records of H&T Department. Subsequently, a borewell was laid (2007) nearly three kilometers north of the Textile Park which subsequently dried up. Again a new borewell was laid in June 2015 about 20 metres north of the Textile Park. At present, water from this borewell is sufficient to meet the current requirements since no unit has been established so far. However, it may not be adequate once the units are set up and start functioning.

3.3.5.2 Textile Park, Rayadurg

The Water Treatment Plant (WTP) and widening of approach road were yet to be taken up for which 10 acres and 0.54 acre, respectively, were required additionally. Though the requirement of extra land was identified in September 2009, the lands were yet to be acquired and the works were yet to be taken up, due to non-release of funds by the Government.

Assistant Director (H&T), Ananthapuramu replied that the Government had released only ₹3.25 crore against the total project cost of ₹7.05 crore and that works would be taken up after release of balance funds.

3.3.5.3 Vizag Apparel Export Park

As per the DPR, the effluents were to be treated in the Common Effluent Treatment Plant (CETP) and then disposed of through a pipeline. However, the construction of CETP had not been taken up (June 2016). The Department replied (June 2016) that CETP was not set up as there was no place to dispose of waste effluents of the plant in nearby areas. Besides, the Park had low occupancy rates. The reply was contrary to the fact that the location of the CETP was earmarked in the DPR which proposed laying of a four kilometer long pipeline for disposal of effluents. No active proposals/correspondence was found in the Department’s records on this issue.

3.3.5.4 Brandix India Apparel City Private Limited

As per the Government orders26 (June 2006), strengthening of the existing road stretch of 14 km from National Highway-5 to Atchutapuram, the town nearest to the Park, was to be taken up by APIIC/R&B Department. However, the work was not taken up due to which the transport facilities to the Park remained inadequate. The SPV also stated (June 2016) that due to non-widening of the road, it was finding it difficult to bring in additional investors.

26 G.O.Ms.No.154 dated 9.6.2006 of Industries & Commerce (Tex) Department
3.3.5.5 **Apparel Export Park, Proddutur**

Against the estimated cost of ₹ five crore for development of infrastructure facilities such as internal roads, water supply and electricity, common facilities centre, storm water drainages and sewage, medical and training centre buildings and equipment, etc., the Department released only ₹ 50 lakh to APIIC (May 2016). APIIC had laid internal roads and barbed wire fencing at a cost of ₹ 2.26 crore. The DHT did not release further funds due to which the remaining works had not been taken up (May 2016). This led to non-completion of the project.

3.3.6 **Non-achievement of objectives**

Audit observed substantial shortfalls in achievement of the objectives of increase in export sales and employment generation.

There were no export sales in Textile Park, Mylavaram, AEP Proddutur and Textile Park, Rayadurg. The VAEP stated that information relating to export sales was not available. In respect of BIACPL, the export sales during the year 2015-16 were worth ₹ 1752.20 crore and it was stated that no targets were fixed for export sales.

While the shortfall in establishment of units was in the range of 24 to 100 per cent, shortfall ranged from 74 to 100 per cent in employment generation.

- No unit was established in Textile Park, Mylavaram (May 2016). Out of 118 plots developed, only 43 plots were allotted to entrepreneurs, but no unit was established due to non-alienation of land.
- In AEP Proddutur, out of 47 plots, no plot was allotted to any entrepreneur (August 2016) due to non-transfer of land to DHT by the APIIC.
- In Textile Park, Rayadurg, only one unit was established (April 2016) against 55 units proposed. The employment generation was also only 100 against the targets of 16,400 in these three Parks (May 2016).
- In VAEP, 27 units were established out of 48 units envisaged and employment generation was only 1,532 against the proposed employment generation of 85,000.
- BIACPL was allotted (June 2006) 1,000 acres of land on lease for 25 years with the objective of providing employment for 60,000 persons. The units in the Park were required to make an investment of ₹ 3,800 crore in the Park to create the projected employment. However, BIACPL and the units could invest only ₹ 568 crore and the employment generated was only 15,162 (May 2016).
3.3.7 Idling of infrastructure created

In Textile Park, Mylavaram, pending alienation\(^{27}\), the land was developed into 118 plots and infrastructure worth ₹2.79 crore was set up till March 2010. The infrastructure created remained idle as no unit was established in the Park due to non-alienation of land in the name of DHT as discussed in Para 3.3.9.1.

In Textile Park, Rayadurg, the Department developed infrastructure facilities like buildings for common facilities, electrical network, road network, etc. incurring expenditure of ₹2.58 crore. These remained idle as no unit was established until March 2016 by the entrepreneurs, despite allotment of plots during 2006-07 and 2007-08, due to delay in alienation of land in the name of DHT. Only one unit had started (April 2016) functioning after more than two years after allotment (December 2013) of the land in the name of the Department.

In AEP Proddutur, APIIC had laid internal roads and barbed wire fencing at a cost of ₹2.26 crore. However, other essential facilities like water supply, electricity, training centre, warehousing centre, etc. were not completed due to non-release of further funds by DHT and no plot was allotted to any entrepreneur in the AEP. As a result, the infrastructure established at a cost of ₹2.26 crore remained idle.

3.3.8 Allotment of plots to non-textile/apparel units

In Vizag Apparel Export Park, Audit observed that plots were allotted to non-textile/apparel units. Three entities viz., Andhra Pradesh State Trade Promotion Corporation, Balaji Industries Services and Mezaan Dharm Kanta which were not in the textile sector, were also allotted plots in the Park.

In AEP Proddutur, out of 76.17 acres of land acquired, five acres were allotted (December 2008) to the Transport Department for setting up of Regional Transport Office building and Driving Test Track. This, however, did not affect the development of the Park as the DPR was prepared for only 50 acres, though 76.17 acres were acquired.

3.3.9 Financial impact on Government exchequer in terms of acquisition of land

The acquisition of land for these Parks followed different procedures, based on the implementing agency and the scheme under which they were covered.

\(^{27}\)Alienation of the government land to Government departments/institutions for remunerative purposes will normally be on collection of its market value subject to conditions prescribed in the Standing Orders of AP Board of Revenue (BSO). The BSO permits handing over of possession of the land pending formal approval of alienation proposal by the Government.
• As per the SITP guidelines, in case of Parks developed by private parties, the entity developing the Park was to procure the land. The State Government was to assist in identification and procurement of suitable land.

• In case of Parks developed by DHT, the land was to be provided by the District Administration.

• In case of Parks developed by APIIC, the land was to be owned and developed by them.

Audit observations on land acquisition and allied issues in the test-checked Parks are discussed below:

3.3.9.1 Textile Park, Mylavaram

The Commissioner and Director of Handlooms and Textiles and Development Commissioner AEPs (CDHT) had requested (August 2004) the District Collector (DC) to provide land for Mylavaram Textile Park. The district revenue authorities identified 62.18 acres (Gutta poramboke28) for development of the Park. The advance possession of land was taken over (March 2005) by DHT. The land was developed before alienation into 118 plots and infrastructure worth ₹2.79 crore was created by March 2010.

After six years (February 2011) of taking advance possession, DHT approached the DC for alienation. The DC requested (September 2011) DHT to pay market value of the land as Government land could not be transferred free of cost for commercial purposes. However, ADHT requested Revenue Department to provide the land value particulars of 62 acres only in March 2013. Subsequently, ADHT requested CDHT to accord permission for withdrawal of ₹62.18 lakh for payment of the same (April, December 2013 and June 2014). In the meantime, Tahsildar, Mylavaram conducted field measurement of the area and the land available was found to be only 59.50 acres. DHT permitted ADHT (September 2014) to pay an amount of ₹59.50 lakh towards the cost of 59.50 acres as reported by the Tahsildar, Mylavaram. However, the amount was not paid to revenue authorities due to the discrepancy. On the instructions of the DC (October 2014) to inspect the land, Revenue Divisional Officer, Jammalamadugu informed (May 2015) the DC that during the earlier survey the area of 59.44 acres had excluded compound wall area of 2.74 acres. The actual area was 62.18 acres after inclusion of the same. The revised proposal for alienation was submitted to DC (November 2015) by the DHT and the same was submitted by the DC to the Chief Commissioner of Land Administration in June 2016. However, the land had not been alienated (August 2016), which led to delay in further activities.

28 Land on hillocks which is reserved for State or communal purposes
Thus, improper survey led to non-alienation of land in the name of DHT. This resulted in non-commencement of units in the Park and the expenditure of ₹2.79 crore incurred for creation of infrastructure in the Park remained unfruitful.

### 3.3.9.2 Textile Park, Rayadurg

DHT requested (October 2002) the District Collector, Ananthapuramu to allot 30 acres of land at Rayadurg for establishment of Textile Park. In response, the district revenue authorities identified Endowment land to the extent of 17.24 acres. However, no action has been taken by the DHT to acquire the balance land of 12.76 acres (November 2016).

The land identified was handed over to DHT, under advance possession clause, during April 2005, on making an advance payment of ₹7.23 lakh. In the meantime, the Honourable High Court had imposed (June 2005) a ban on acquisition of the Endowment land without its prior permission. The land was developed into 55 plots and allotted (2006-07 and 2007-08) to entrepreneurs while under advance possession. The Government permitted (February 2011) State Level Committee (SLC)\(^\text{29}\) to take up the issue as a special case and fix the market value. The SLC, while fixing the market value, directed (October 2011) the Revenue Department to complete the process of obtaining permission from the Honourable High Court within three months. Writ petition for obtaining the permission was, however, filed only in 2012 and permission was obtained only in November 2013. Consent award was passed in December 2013 and DHT could finally acquire the land in 2014-15, by paying the total amount of ₹22.73 lakh. Audit observed that only one unit was functioning (April 2016), five units were under construction and the remaining 49 plots were vacant (September 2016).

Further, the Department had proposed (September 2009) to set up a Water Treatment Plant and widen the approach road for the Park for which additional land of 10.54 acres was required. An amount of ₹2.70 lakh was paid (December 2009) as advance to Land Acquisition Officer. The same is yet to be acquired (May 2016).

Thus, the delay in land acquisition due to inappropriate site selection led to delay in establishment of units in the Park. The expenditure of ₹2.81 crore incurred on the Park (₹23 lakh on land acquisition and ₹2.58 crore for creation of infrastructure) remained largely unfruitful, as the intended objective could not be achieved.

\(^{29}\) As per AP Land Acquisition (State Level Negotiation Committee (SLNC)) Rules 1998, if the valuation is not accepted by the land owners they may convey their willingness to settle through government/SLNC to enhance their compensation by more than 50 per cent.
3.3.9.3 Vizag Apparel Export Park

An extent of 145.60 acres of land in Industrial Development Area, in Autonagar, Visakhapatnam was selected (July 2003) for establishment of the VAEP and APIIC was designated as implementing agency for the same. Although APIIC was the implementing agency, an SPV, Vizag Apparel Park for Export, was incorporated (March 2004) to monitor the implementation of the Park. An amount of ₹7.41 crore was released by the Department to APIIC towards infrastructure development.

Though the area was being developed as an AEP, approval for the layout was taken in January 2003 as part of Industrial Development Area. Subsequently, no revised layout was submitted to Visakhapatnam Urban Development Authority (VUDA) for AEP though the DC had advised (October 2003) APIIC to do so.

As per the APES, under which the Park was sanctioned (July 2003), the State Government or an Undertaking sponsored by the State Government (the designated agency) was to provide land free of cost for establishing the Park. Though the SPV resolved to pay ₹three crore to APIIC for the 145.60 acres of land, it did not make any payment and the APIIC did not hand over the land to the SPV.

APIIC had demarcated 75 plots and sold them to 48 entrepreneurs collecting an amount of ₹18.78 crore towards sale proceeds. However, the amount was not handed over (May 2016) to the SPV.

The SPV has remained a non-starter owing to non-transfer of land/sale proceeds.

3.3.9.4 Brandix India Apparel City Private Limited

Government had entered (July 2005) into a Memorandum of Understanding (MoU) with Brandix Lanka Limited (Firm) for development of Apparel Park and generation of 60,000 direct jobs. As per the terms of MoU, an SPV was to be formed by the firm and Government was to provide 1000 acres of land. A lease agreement was entered into by the Government and the Firm during June 2006. The firm formed an SPV, Brandix India Apparel City Private Limited (BIACPL), for development of Apparel Park and the Government provided Land (1,000 acres) on “lease” for 25 years at Atchutapuram of Visakhapatnam District. The Government was to provide infrastructure facilities like improvement of external road connectivity, etc. and the date of providing the same was to be notified as commitment fulfilment date.

As per the land lease agreement, in the event of failure of the SPV to generate employment of 60,000 jobs within five years from the commitment fulfilment date, it was to pay lease rentals equivalent to the then prevailing lease rentals
in proportion to the extent of employment not created by SPV. SPV also had the option to surrender the remaining land.

Against the target of 60,000 jobs, the BIACPL could create only 11,634 jobs as of July 2012 and APIIC transferred (September 2014) proportionate land of 193.80 acres to BIACPL. As of January 2015, a total of 15,162 jobs were created and the SPV was entitled to have 252.7 acres of land. Despite non-utilization of the balance land by BIACPL, the Government had not recovered the enhanced lease rentals on this land from October 2014 to date (May 2016), as the infrastructure facilities agreed upon under ‘State Support’ in the lease agreement had not been developed fully and the commitment fulfilment date had not been notified.

3.3.9.5 Apparel Export Park, Proddutur

Government of Andhra Pradesh had decided (May 2005) to establish an AEP at Proddutur at an estimated cost of ₹ five crore. It had requested (August 2005) the APIIC to acquire 150 acres of private land at an estimated cost of ₹ 2.25 crore. Due to hike in the cost of land around the land identified for AEP Proddutur, the Zonal Manager, APIIC proposed (September 2006) acquisition of 100.84 acres of land at a lower cost in another location identified by the Revenue Department. After joint inspection (October 2006) with the Revenue authorities, 93.26 acres of land was identified, which included 7.36 acres of DKT land and 9.73 acres of land under dispute in Courts. APIIC deposited an amount of ₹ 3.28 crore towards land cost to the Revenue Department. DHT while releasing the land cost of ₹ 2.25 crore (November 2006 and March 2007) to APIIC, requested (February 2007) it to restrict the purchase of land within the amount of ₹ 2.25 crore, as no further provision of funds was available. Despite this, APIIC acquired 76.17 acres (April and November 2007) at a cost of ₹ 3.28 crore. The remaining 17.09 acres of land (9.73 acres under disputes and 7.36 acres of DKT land) have not been acquired (August 2016).

APIIC had incurred a total expenditure of ₹ 5.58 crore on acquisition of land and laying of internal roads and barbed fencing in the Park against the total amount of ₹ 2.75 crore released by DHT. The remaining infrastructure was not yet developed due to non-release of funds by DHT and no plot was allotted to any entrepreneur in the AEP.

In view of non-payment of balance amount by DHT, APIIC proposed (November 2012) to convert the AEP into an Industrial Park. Government directed (March 2014) APIIC to hand over the possession of land of AEP to DHT and settle the accounts. However, APIIC got the draft layout approved

30 Darakhastu land (Land assigned to poor which cannot be sold)
(May 2015) by District Town and Country Planning Committee for Industrial Park and did not hand over the land to DHT (August 2016). Thus, the expenditure of ₹5.58 crore incurred on the AEP remained unfruitful.

3.3.10 Conclusion

The establishment of Textile and Apparel Parks was intended to increase employment and export of textiles/apparels. There were delays ranging from 23 to 156 months in establishment of Parks due to improper selection of site, delays in transfer of lands to Handloom and Textile Department, non-completion of infrastructure facilities and amenities. This resulted in significant non-achievement of objectives of Parks as envisaged. There was 24 to 100 per cent shortfall in setting up units in these Parks while the shortfall in employment generation ranged from 74 to 100 per cent.
3.4 Non-accrual of savings of ₹6.47 crore to Government on reduction of scope of work

Under Handri Niva Sujala Sujalothi (HNSS) Project (Phase-II), the Department had invited (January 2007) tenders for the work of ‘Investigation, Preparation of Hydraulic Particulars, Designs, land plan schedules, Drawings and formation of Gollapalli Reservoir with a capacity of 1.613 TMC on Madakasira Branch Canal between Km 8.000 to Km 10.000 and providing distributary system to feed an ayacut of 10,000 acres under the Reservoir, including construction of CM & CD works (package 53)’. The work was awarded (July 2007) to a contractor for ₹51.88 crore (with a tender discount of nearly 23.12 per cent over the estimated value of ₹67.48 crore) for completion within 36 months (i.e. by July 2010). The contractor executed only 0.87 per cent work and an amount of ₹0.45 crore was paid (November 2013) to him. Due to lack of progress, the Department deleted work valued at ₹47.18 crore from the scope of the agreement and entrusted (September 2014) the same to a new contractor. The work was in progress and an amount of ₹41.86 crore was paid to the second contractor as of June 2016.

During scrutiny (June 2016) of the records pertaining to the above work in the HNSS Division No.10, Dharmavaram, Audit observed the following:

The agreement with the first contractor was an Engineering, Procurement and Construction (EPC) turnkey contract, under which, the contractor was to conduct detailed survey and investigation, prepare and submit designs and drawings to the Department in line with the basic project parameters broadly defined in the agreement. On approval of the same by the Department, the contractor had to execute the entire work including all ancillary and incidental items of work and deliver the project in complete shape.

The major component of work under the agreement was construction of Gollapalli reservoir. As per the basic project parameters mentioned in the agreement, the Full Reservoir Level (FRL) of the Gollapalli reservoir was to be +532.20 M.

After conducting detailed survey and investigations, the contractor had submitted (May 2008) the reservoir designs with a reduced FRL of +529.00 M. While according permission for reduction in FRL, Government had directed (January 2009) the Department to conclude a supplementary
agreement with the contractor to reduce the contract price to account for the reduction in FRL by 3.2 meters. As per the departmental records, the savings due to reduction in FRL was estimated to be ₹6.47 crore. The Department addressed (March/ April 2009) the contractor to submit cost estimates for the revised scope of work with reduced FRL and conclude supplementary agreement for the revised cost. However, the contractor did not come forward to conclude supplementary agreement on the ground that it was an Engineering, Procurement and Construction contract. The contractor did not show progress of work thereafter. Due to lack of progress of work, the Department deleted (August 2014) the reservoir work from the scope of the agreement and entrusted (September 2014) the same on nomination basis to a new contractor, who came forward to execute the deleted work at the original agreement rates.

Audit observed that the Department had concluded agreement with the new contractor for the full value of ₹47.18 crore, without reducing the difference on account of reduced FRL. However, while approving (December 2014) the payment schedule under the agreement, the Superintending Engineer, HNSS Circle-3, Madanapalle (SE) reserved an amount of ₹8.76 crore citing that if reduction in agreement value was necessitated as per Government orders, the same could be adjusted from the reserved amount. However, based on a request received from the new contractor, the Chief Engineer (NTRTGP), Tirupati instructed the SE to release full payments to the contractor on the ground that the intended capacity of the reservoir was achieved even after reduction of FRL. The SE released payments accordingly. The new contractor has completed 88.72 per cent of work as of May 2016 and an amount of ₹41.86 crore had already been paid, without adjusting the savings due to reduction in scope of work.

The justification given by the Department for non-reduction of the agreement value of the second contractor was not tenable since the designs submitted earlier by the first agency also contemplated the same storage capacity with the reduced FRL. While Government had ordered reduction in contract price of the first contractor since there was change in the basic project parameters, a different stand was taken in the case of the second contractor, though the circumstances were the same in both cases. Thus, failure of the Department to reduce the differential amount from the agreement concluded with the second contractor led to non-accrual of savings of ₹6.47 crore to the state exchequer.

---

34 Estimated cost of reservoir with FRL (+) 532.20 M was ₹61.92 crore. Estimated cost with reduced FRL of (+) 529.00 M was ₹53.52 crore. Thus, the savings at estimate rates was ₹8.40 crore. After applying tender discount of (-) 23.1156 per cent, the net saving was ₹6.47 crore.
The above audit observation was forwarded to the Government in September 2016 (reminded in October, November and December 2016); reply had not been received.

### 3.5 Excess payment of ₹4.97 crore to contractor due to front loading of payments

As part of the Handri Niva Sujala Sravanthi (HNSS) Project (Phase-II), the Water Resources Department had awarded (December 2006) the works of “Investigation, design and drawings, excavation and construction of Tunnel on HNSS main canal from Km 285.100 to Km 287.100 (Package-6) and from Km 358.150 to Km 360.250 (Package-10)” to a contractor under Engineering, Procurement and Construction (EPC) Turnkey contract for ₹32.40 crore and ₹28.08 crore, respectively, with a stipulation to complete the works within 36 months (i.e. by November 2009). Extension of time was granted for both packages up to June 2013, due to obstructions by the farmers owing to non-payment of land compensation, heavy rains, delay in finalisation of designs, etc. The agency executed the work and received payments of ₹26.14 crore in Package-6 and ₹21.33 crore in Package-10 (November 2012 and March 2013 respectively). As the agency did not show any progress thereafter, the Department deleted part of the work from the scope of both the agreements, prepared fresh estimates and awarded (October 2015) the same to another agency for ₹35.49 crore and ₹35.50 crore respectively. The works were in progress (June 2016).

During scrutiny (June 2016) of the records pertaining to the above work in the HNSS Division No.10, Dharmavaram, Audit observed the following:

As per the conditions of contracts concluded with the first agency, the total agreement value would be divided into various works components/sub-components and their cost specified in percentage terms in the Schedule of Payments in the agreement. The interim payments for each sub-component would be regulated out of the percentage cost so assigned. The main works components under both these packages were (i) Excavation of tunnel/approach channel and (ii) Providing cement concrete (CC) lining to tunnel and approach channel. Audit observed that as per the departmental estimates prepared for these two packages, the cost of ‘Excavation of tunnel/approach channel’ worked out to 73.79 per cent and 71.44 per cent of the total estimated value of respective packages and the cost of ‘CC lining’ worked out to 24.45 per cent and 26.88 per cent, respectively. However, in the payment schedules of these agreements, the Department provided higher percentages towards excavation of tunnel/approach channel, while reduced percentages were provided for lining work, as shown below:
Since excavation work was to be executed first and lining work was to be taken up later, the incorrect approval of payment schedule led to front loading of payments for excavation of tunnel/approach channel. By the time the EPC agency stopped the works, it had executed most of the tunnel/approach channel excavation work and taken payments as per enhanced percentages and did not execute CC lining work, the cost of which was reduced in the payment schedule. Front loading of payments for tunnel/approach channel resulted in excess payment of ₹4.97 crore to the agency, as shown below:

<table>
<thead>
<tr>
<th>Package</th>
<th>Percentage of tunnel work completed</th>
<th>Amount payable for work done (₹ in crore)</th>
<th>Amount actually paid (₹ in crore)</th>
<th>Excess payment (₹ in crore)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Package-6</td>
<td>97.76%</td>
<td>23.37</td>
<td>25.66</td>
<td>2.29</td>
</tr>
<tr>
<td>Package-10</td>
<td>89.98%</td>
<td>18.05</td>
<td>20.73</td>
<td>2.68</td>
</tr>
<tr>
<td>Total excess payment</td>
<td></td>
<td></td>
<td></td>
<td>4.97</td>
</tr>
</tbody>
</table>

It was further observed that withdrawal of part of the work from the original contracts was done by invoking Clause 60 (c) of the Preliminary Specifications to the AP Detailed Standard Specifications (APDSS), which formed part of the EPC agreements. Under this clause, the additional cost incurred by the Department for completion of the balance work was to be recovered from the first agency, subject to a limit of five per cent of the total finished contract value. In the instant case, the increase in cost of execution of works deleted from the original contractor worked out to ₹29.49 crore in package-6 and ₹29.26 crore in package-10. However, the maximum amount recoverable from the agency as per Clause 60 (c) of APDSS worked out to ₹3.09 crore and ₹2.87 crore, respectively. The remaining additional cost of ₹26.4 crore and ₹26.39 crore was an additional burden on the state exchequer.
The Department in its reply (November 2016) stated that the payment schedule was proposed by the agency transferring a certain amount from the lining component to tunneling to meet the unforeseen risk items during tunneling and the same was approved by the Department. The reply was not acceptable as the contractor had not submitted component-wise cost estimates for the purpose of payment schedules, as required under the agreement conditions. Besides, it was also observed that while the cost percentage of lining work was reduced in the payment schedule to increase the cost percentage of tunnel/approach channel excavation, the contractor did not execute the lining work on the ground that the cost of lining had increased and was not workable for him. The Department allowed higher payments to the contractor for tunnel/approach channel excavation without taking into account the cost implication of lining work which had led to the excess payment to the contractor.

The Department further replied that the final account of the original agency would be settled as per the directions of the Government or as per the actual quantum of work done and the excess payment, if any, would be recovered from the assets of the agency available with the Department.
### Appendix 1.1
*(Reference to paragraph 1.6.3, page 4)*

**Department-wise break-up of outstanding Inspection Reports and Paragraphs**

<table>
<thead>
<tr>
<th>Department</th>
<th>Number of IRs/Paragraphs issued up to 31 March 2016 and pending as of 30 September 2016</th>
<th>IRs</th>
<th>Paragraphs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>286</td>
<td></td>
<td>1224</td>
</tr>
<tr>
<td>Agriculture Marketing and Cooperation</td>
<td>155</td>
<td></td>
<td>476</td>
</tr>
<tr>
<td>Animal Husbandry, Dairy Development and Fisheries</td>
<td>140</td>
<td></td>
<td>736</td>
</tr>
<tr>
<td>Environment, Forests, Science and Technology</td>
<td>209</td>
<td></td>
<td>556</td>
</tr>
<tr>
<td>Industries and Commerce</td>
<td>125</td>
<td></td>
<td>400</td>
</tr>
<tr>
<td>Information Technology, Electronics and Communication</td>
<td>1</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Infrastructure and Investment</td>
<td>11</td>
<td></td>
<td>63</td>
</tr>
<tr>
<td>Water Resources</td>
<td>1098</td>
<td></td>
<td>3468</td>
</tr>
<tr>
<td>Works &amp; Projects wing of Finance Department</td>
<td>17</td>
<td></td>
<td>89</td>
</tr>
<tr>
<td>Roads and Buildings</td>
<td>269</td>
<td></td>
<td>849</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2311</strong></td>
<td></td>
<td><strong>7866</strong></td>
</tr>
</tbody>
</table>
### Appendix-2.1  
*(Reference to paragraph 2.1.8.2, page 15)*

**Details of discharges of TBP LLC distributaries at the joining points of GRP LI Scheme supply channels**

<table>
<thead>
<tr>
<th>Name of the Scheme</th>
<th>Name of the TBP LLC Distributary</th>
<th>Chainage of joining point of GRP</th>
<th>Discharge capacity of TBP LLC Distributary in cusecs</th>
<th>Discharge capacity of GRP Schemes in cusecs</th>
<th>Percentage of shortfall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulachinta</td>
<td>CK Major</td>
<td>At 12.965 Km of CK Major</td>
<td>27.61</td>
<td>61.8</td>
<td>55.32</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mugaladoddi</td>
<td>4TE of Narayanapuram</td>
<td>At 3.424 Km of 4TE Narayanapuram Distributary</td>
<td>10.98</td>
<td>17</td>
<td>35.41</td>
</tr>
</tbody>
</table>

**Chilakaladona**

<table>
<thead>
<tr>
<th>Name of the Scheme</th>
<th>Name of the TBP LLC Distributary</th>
<th>Chainage of joining point of GRP</th>
<th>Discharge capacity of TBP LLC Distributary in cusecs</th>
<th>Discharge capacity of GRP Schemes in cusecs</th>
<th>Percentage of shortfall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gangavaram Major Distributary</td>
<td>At 7.000 Km of 12 TE Minor (Reverse flow)</td>
<td>7.79</td>
<td>24.29</td>
<td>67.92</td>
</tr>
<tr>
<td></td>
<td></td>
<td>At 7.000 Km of 12 TE Minor (direct flow)</td>
<td>7.79</td>
<td>14.84</td>
<td>47.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>At 0.000 Km of 10L Minor</td>
<td>7.89</td>
<td>21.8</td>
<td>63.80</td>
</tr>
<tr>
<td></td>
<td></td>
<td>At 0.000 Km of 11R Minor</td>
<td>2.1</td>
<td>2.5</td>
<td>16.00</td>
</tr>
<tr>
<td></td>
<td>Nandavaram sub-distributary of Gangavaram major Distributary</td>
<td>4TE Dry Minor</td>
<td>10.46</td>
<td>12</td>
<td>12.83</td>
</tr>
</tbody>
</table>

**Soganuru**

<table>
<thead>
<tr>
<th>Name of the Scheme</th>
<th>Name of the TBP LLC Distributary</th>
<th>Chainage of joining point of GRP</th>
<th>Discharge capacity of TBP LLC Distributary in cusecs</th>
<th>Discharge capacity of GRP Schemes in cusecs</th>
<th>Percentage of shortfall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mittasomapuram Distributary-1 (MSP)</td>
<td>At 1.000 Km of MSP Distributary</td>
<td>2.3</td>
<td>21</td>
<td>89.04</td>
</tr>
<tr>
<td></td>
<td>Mittasomapuram Distributary-2 (MSP)</td>
<td>14.83 Km of MSP Distributary</td>
<td>13.82</td>
<td>21</td>
<td>34.19</td>
</tr>
<tr>
<td></td>
<td>Ponakaladinne</td>
<td>1.000 Km of PD Distributary</td>
<td>7.8</td>
<td>11.66</td>
<td>33.10</td>
</tr>
</tbody>
</table>

**Duddi**

<table>
<thead>
<tr>
<th>Name of the Scheme</th>
<th>Name of the TBP LLC Distributary</th>
<th>Chainage of joining point of GRP</th>
<th>Discharge capacity of TBP LLC Distributary in cusecs</th>
<th>Discharge capacity of GRP Schemes in cusecs</th>
<th>Percentage of shortfall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Narayanapuram Major of Madhavaram Major Distributary</td>
<td>At Km 20.064 of Madhavaram Distributary</td>
<td>11</td>
<td>33</td>
<td>66.66</td>
</tr>
</tbody>
</table>

**Basaladoddi**

<table>
<thead>
<tr>
<th>Name of the Scheme</th>
<th>Name of the TBP LLC Distributary</th>
<th>Chainage of joining point of GRP</th>
<th>Discharge capacity of TBP LLC Distributary in cusecs</th>
<th>Discharge capacity of GRP Schemes in cusecs</th>
<th>Percentage of shortfall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Suguru Distributary</td>
<td>At Km 11.40 of Suguru Distributary</td>
<td>12.25</td>
<td>40</td>
<td>69.37</td>
</tr>
</tbody>
</table>

**Madhavaram**

<table>
<thead>
<tr>
<th>Name of the Scheme</th>
<th>Name of the TBP LLC Distributary</th>
<th>Chainage of joining point of GRP</th>
<th>Discharge capacity of TBP LLC Distributary in cusecs</th>
<th>Discharge capacity of GRP Schemes in cusecs</th>
<th>Percentage of shortfall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15L &amp; 16L common of Madhavaram major Distributary (by pumps)</td>
<td>At Km 32.360 15L &amp; 16L common of Madhavaram major Distributary</td>
<td>9.16</td>
<td>38</td>
<td>75.89</td>
</tr>
<tr>
<td></td>
<td>Madhavaram Major (By supply channel)</td>
<td>At Km 36.20 of Madhavaram Distributary</td>
<td>7.94</td>
<td>19.6</td>
<td>59.48</td>
</tr>
</tbody>
</table>

*Source: Information obtained from the Department*
## Benefit-cost ratio of Pattiseema Project

<table>
<thead>
<tr>
<th>Component of benefit/cost</th>
<th>Rate of benefit/cost</th>
<th>Amount as per DPR</th>
<th>Amount as worked out by Audit</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Benefit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benefit from IP of 1.2 lakh acres under Polavaram RMC</td>
<td>₹10000 per acre</td>
<td>120</td>
<td>0</td>
<td>Audit did not consider this benefit as the work of distributary system of Polavaram RMC has not been taken up so far.</td>
</tr>
<tr>
<td>Benefit from other ayacut of 3.46 lakh acres</td>
<td>₹8000 per acre</td>
<td>276.80</td>
<td>276.80</td>
<td></td>
</tr>
<tr>
<td>Revenue from industrial water supply</td>
<td>₹4.5 per 1000 gallons</td>
<td>41.51</td>
<td>0</td>
<td>Audit did not consider this benefit as the industrial users were not identified.</td>
</tr>
<tr>
<td><strong>Total benefit</strong></td>
<td><strong>438.31</strong></td>
<td><strong>276.80</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Annual Cost

<table>
<thead>
<tr>
<th></th>
<th>Rate of benefit/cost</th>
<th>Amount as per DPR</th>
<th>Amount as worked out by Audit</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest on capital cost</td>
<td>10%</td>
<td>130</td>
<td>166.71</td>
<td>The Department computed the BCR considering the project cost as ₹1300 crore. Audit computed the BCR with the revised project cost of ₹1667.15 crore**. Audit calculated the depreciation on pumping system and pressure mains** as per the guidelines of GoI/CWC and considering the life of civil works as three years.</td>
</tr>
<tr>
<td>Depreciation of project</td>
<td>13 (@ 1%)</td>
<td>88.50 (@ 33.33%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation on pumping system</td>
<td>65 (@ 5%)</td>
<td>28.53 (@ 8.33%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation on raising mains</td>
<td>25.89 (@ 3.33%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance of Head works</td>
<td>1%</td>
<td>13</td>
<td>16.67</td>
<td></td>
</tr>
<tr>
<td>Annual O&amp;M charges</td>
<td>₹600 per Ha</td>
<td>11.3</td>
<td>11.3</td>
<td></td>
</tr>
<tr>
<td>Power charges</td>
<td>₹5.5 / unit</td>
<td>28.91</td>
<td>28.91</td>
<td></td>
</tr>
<tr>
<td><strong>Total annual cost</strong></td>
<td><strong>261.21</strong></td>
<td><strong>366.51</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Benefit cost ratio</strong></td>
<td><strong>1.68:1</strong></td>
<td><strong>0.76:1</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

@@ Revised project cost as per the revised administrative approval. The project cost increased due to high tender premium, changes in scope of work and increase in the cost of lands.

## Source

Information obtained from the Department and DPR of the project
### Appendix 3.1

*(Reference to paragraph 3.2.6.2, page 64)*

**Particulars of road stretches deleted from the maintenance works taken up under AP Road Sector Project**

<table>
<thead>
<tr>
<th>Sl No.</th>
<th>Package No.</th>
<th>Total length as per agreement (in Km)</th>
<th>Name of the division</th>
<th>Reaches transferred to NH (in Km)</th>
<th>Reaches deleted for taking up improvement works (in Km)</th>
<th>Deleted for other reasons (over lapping, etc.) (in Km)</th>
<th>Total length deleted (in Km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>29</td>
<td>140.250</td>
<td>Nellore</td>
<td>47.030</td>
<td>0.000</td>
<td>0.000</td>
<td>47.030</td>
</tr>
<tr>
<td>2</td>
<td>30</td>
<td>210.579</td>
<td>Gudur</td>
<td>24.079</td>
<td>0.000</td>
<td>0.000</td>
<td>24.079</td>
</tr>
<tr>
<td>3</td>
<td>21</td>
<td>167.326</td>
<td>Kurnool</td>
<td>73.058</td>
<td>5.800</td>
<td>0.000</td>
<td>78.858</td>
</tr>
<tr>
<td>4</td>
<td>39</td>
<td>162.794</td>
<td>Nandyal</td>
<td>0.415</td>
<td>0.000</td>
<td>0.598</td>
<td>1.013</td>
</tr>
<tr>
<td>5</td>
<td>22</td>
<td>124.600</td>
<td>Nandyal</td>
<td>74.800</td>
<td>0.000</td>
<td>0.000</td>
<td>74.800</td>
</tr>
<tr>
<td>6</td>
<td>20</td>
<td>179.650</td>
<td>Nandyal</td>
<td>32.640</td>
<td>0.000</td>
<td>2.140</td>
<td>34.780</td>
</tr>
<tr>
<td>7</td>
<td>17</td>
<td>205.562</td>
<td>Rajahmundry</td>
<td>0.000</td>
<td>21.062</td>
<td>0.000</td>
<td>21.062</td>
</tr>
<tr>
<td>8</td>
<td>15</td>
<td>132.683</td>
<td>Rajahmundry</td>
<td>0.000</td>
<td>8.760</td>
<td>0.000</td>
<td>8.760</td>
</tr>
<tr>
<td>9</td>
<td>7</td>
<td>178.555</td>
<td>Tirupati</td>
<td>25.200</td>
<td>0.000</td>
<td>0.000</td>
<td>25.200</td>
</tr>
<tr>
<td>10</td>
<td>32</td>
<td>93.02</td>
<td>Anantapuramu</td>
<td>61.414</td>
<td>0.000</td>
<td>0.000</td>
<td>61.414</td>
</tr>
<tr>
<td>11</td>
<td>33</td>
<td>107.860</td>
<td>Anantapuramu</td>
<td>74.400</td>
<td>22.150</td>
<td>0.000</td>
<td>96.550</td>
</tr>
<tr>
<td>12</td>
<td>14</td>
<td>122.141</td>
<td>Visakhapatnam</td>
<td>0.000</td>
<td>1.400</td>
<td>0.000</td>
<td>1.400</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>186.100</td>
<td>Visakhapatnam</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

| Total  | 2011.12     | 413.036                              | 59.172               | 2.738                            | 474.946                                              |                                                      |                            |
## Appendix 3.2
*(Reference to paragraph 3.3.1, page 73)*

### Details of Textile/Apparel Parks

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Park (District)</th>
<th>Developer</th>
<th>GoI Scheme</th>
<th>Year of sanction</th>
<th>Total outlay (` in crore)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>M/s Vizag Apparel Export Park, (Visakhapatnam)</td>
<td>APIIC</td>
<td>APES</td>
<td>2002-03</td>
<td>26.42</td>
</tr>
<tr>
<td>2</td>
<td>Apparel Export Park, Proddutur (Kadapa)</td>
<td>-do-</td>
<td>*</td>
<td>2005-06</td>
<td>5.00</td>
</tr>
<tr>
<td>3</td>
<td>Textile Park, Rayadurg (Ananthapuramu)</td>
<td>Director, H&amp;T</td>
<td>*</td>
<td>2002-03</td>
<td>7.05</td>
</tr>
<tr>
<td>4</td>
<td>Textile Park, Pamidi (Ananthapuramu)</td>
<td>-do-</td>
<td>*</td>
<td>2002-03</td>
<td>1.76</td>
</tr>
<tr>
<td>5</td>
<td>Handloom Park, Chirala (Prakasam)</td>
<td>-do-</td>
<td>*</td>
<td>2003-04</td>
<td>7.70</td>
</tr>
<tr>
<td>6</td>
<td>Textile Park, Mylavaram (Kadapa)</td>
<td>-do-</td>
<td>*</td>
<td>2005-06</td>
<td>7.38</td>
</tr>
<tr>
<td>7</td>
<td>Textile Park, Venkatagiri (Nellore)</td>
<td>-do-</td>
<td>*</td>
<td>2005-06</td>
<td>7.85</td>
</tr>
<tr>
<td>8</td>
<td>Brandix India Apparel City, Atchutapuram (Visakhapatnam)</td>
<td>Private Party</td>
<td>SITP</td>
<td>2006-07</td>
<td>134.42</td>
</tr>
<tr>
<td>9</td>
<td>Hindupur Vyapar Apparel Park, Hindupur (Ananthapuramu)</td>
<td>-do-</td>
<td>SITP</td>
<td>2006-07</td>
<td>102.27</td>
</tr>
<tr>
<td>10</td>
<td>MAS Fabric Park, Chintavaram (Nellore)</td>
<td>-do-</td>
<td>SITP</td>
<td>2005-06</td>
<td>254.70</td>
</tr>
<tr>
<td>11</td>
<td>Lepakshi Integrated Textile Park, Chilmathur (Ananthapuramu)</td>
<td>-do-</td>
<td>*</td>
<td>2011-12</td>
<td>103.98</td>
</tr>
</tbody>
</table>

* These Parks did not get GoI grants under any scheme and were taken up with State Government funds
**Appendix- 3.3**

*(Reference to paragraph 3.3.1, page 73)*

Details of funds allotted, released and expenditure incurred on the test-checked Textile/Apparel Parks

(₹ in crore)

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the park</th>
<th>Project outlay</th>
<th>Govt. of India funds</th>
<th>State Govt. funds</th>
<th>Expenditure from other sources</th>
<th>Total expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Allocated</td>
<td>Released</td>
<td>Expenditure incurred</td>
<td>Allocated</td>
</tr>
<tr>
<td>1</td>
<td>Textile Park, Mylavaram</td>
<td>7.38</td>
<td>5.99*</td>
<td>0</td>
<td>0</td>
<td>1.39</td>
</tr>
<tr>
<td>2</td>
<td>Textile Park, Rayadurg</td>
<td>7.05</td>
<td>5.02</td>
<td>0</td>
<td>0</td>
<td>0.35</td>
</tr>
<tr>
<td>3</td>
<td>M/s Vizag Apparel Export Park, Visakhapatnam</td>
<td>26.42</td>
<td>16.70</td>
<td>5.97</td>
<td>5.97</td>
<td>6.82</td>
</tr>
<tr>
<td>4</td>
<td>BIACPL, Visakhapatnam</td>
<td>134.42</td>
<td>40.00</td>
<td>40.00</td>
<td>40.00</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Apparel Export Park, Proddutur</td>
<td>5.00</td>
<td>3.58**</td>
<td>0</td>
<td>0</td>
<td>1.42</td>
</tr>
</tbody>
</table>

* In the DPR, it was proposed to get assistance of ₹5.99 crore from GoI under Textiles Centre Infrastructure Development Scheme (TCIDS). However, the park was not approved under TCIDS.

** In the DPR, it was proposed to get assistance of ₹3.58 crore from GoI under APES. However, the park was not approved under APES.

# APIIC incurred more expenditure from its own sources than actually released by Government of AP through DHT.
Appendix-3.4

(Reference to paragraph 3.3.3, page 75)

Statement showing the time-overrun in completion of the test-checked Textile/Apparel Parks

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of the Textile/Apparel Park</th>
<th>Project outlay (₹ in crore)</th>
<th>Year of sanction</th>
<th>Schedule date of completion</th>
<th>Actual date of completion</th>
<th>Time overrun as of July 2016</th>
<th>No. of units contemplated</th>
<th>No. of units completed</th>
<th>No. of units functioning</th>
<th>Employment envisaged</th>
<th>Employment generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Textile Park, Mylavaram</td>
<td>7.38</td>
<td>2005-06</td>
<td>February 2006</td>
<td>Not completed #</td>
<td>125 months</td>
<td>118</td>
<td>Nil</td>
<td>Nil</td>
<td>1400</td>
<td>Nil</td>
</tr>
<tr>
<td>2</td>
<td>Textile Park, Rayadurg</td>
<td>7.05</td>
<td>2002-03</td>
<td>June 2003</td>
<td>Not completed #</td>
<td>156 months</td>
<td>55</td>
<td>1</td>
<td>1</td>
<td>5000</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>M/s Vizag Apparel Export Park, Visakhapatnam</td>
<td>26.42</td>
<td>2003-04</td>
<td>December 2004</td>
<td>Not completed #</td>
<td>139 months</td>
<td>48</td>
<td>27</td>
<td>10</td>
<td>850000</td>
<td>1532</td>
</tr>
<tr>
<td>4</td>
<td>BIACPL, Visakhapatnam</td>
<td>134.42</td>
<td>2006-07</td>
<td>December 2007</td>
<td>November 2009</td>
<td>23 months</td>
<td>17</td>
<td>13</td>
<td>13</td>
<td>600000</td>
<td>15162</td>
</tr>
<tr>
<td>5</td>
<td>Apparel Export Park, Proddutur</td>
<td>5.00</td>
<td>2005-06</td>
<td>December 2006</td>
<td>Not completed #</td>
<td>115 months</td>
<td>47</td>
<td>Nil</td>
<td>Nil</td>
<td>10000</td>
<td>Nil</td>
</tr>
</tbody>
</table>

* as of July 2016
Glossary
### Glossary

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADHT</td>
<td>Assistant Director of Handlooms and Textiles</td>
</tr>
<tr>
<td>AEP</td>
<td>Apparel Export Park</td>
</tr>
<tr>
<td>AG</td>
<td>Accountant General</td>
</tr>
<tr>
<td>AMCs</td>
<td>Agricultural Marketing Committees</td>
</tr>
<tr>
<td>APCPDCL</td>
<td>Andhra Pradesh Central Power Distribution Company Limited</td>
</tr>
<tr>
<td>APERC</td>
<td>AP Electricity Regulatory Commission</td>
</tr>
<tr>
<td>APES</td>
<td>Apparel Parks for Exports Scheme</td>
</tr>
<tr>
<td>APIIC</td>
<td>Andhra Pradesh Industrial Infrastructure Corporation Limited</td>
</tr>
<tr>
<td>APITCO</td>
<td>Andhra Pradesh Industrial and Technical Consultancy Organization Limited</td>
</tr>
<tr>
<td>APKVIB</td>
<td>AP Khadi and Village Industries Board</td>
</tr>
<tr>
<td>APPWD Code</td>
<td>Andhra Pradesh Public Works Department Code</td>
</tr>
<tr>
<td>APRDC</td>
<td>Andhra Pradesh Road Development Corporation</td>
</tr>
<tr>
<td>APSIDC</td>
<td>Andhra Pradesh State Irrigation Development Corporation</td>
</tr>
<tr>
<td>APSPDCL</td>
<td>Southern Power Distribution Company of Andhra Pradesh Ltd.</td>
</tr>
<tr>
<td>ATNs</td>
<td>Action Taken Notes</td>
</tr>
<tr>
<td>BCR</td>
<td>Benefit-cost Ratio</td>
</tr>
<tr>
<td>BIACPL</td>
<td>Brandix India Apparel City Private Limited</td>
</tr>
<tr>
<td>BSO</td>
<td>Standing Orders of AP Board of Revenue</td>
</tr>
<tr>
<td>CAG</td>
<td>Comptroller and Auditor General of India</td>
</tr>
<tr>
<td>CC</td>
<td>Cement Concrete</td>
</tr>
<tr>
<td>CDHT</td>
<td>Commissioner and Director of Handlooms and Textiles and Development Commissioner AEPs</td>
</tr>
<tr>
<td>CDO</td>
<td>Central Designs Organisation</td>
</tr>
<tr>
<td>CED</td>
<td>Central Excise Duty</td>
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<tr>
<td>CETP</td>
<td>Common Effluent Treatment Plant</td>
</tr>
<tr>
<td>CM &amp; CD</td>
<td>Cross Masonry and Cross Drainage</td>
</tr>
<tr>
<td>CMD</td>
<td>Contracted Maximum Demand</td>
</tr>
<tr>
<td>CMF</td>
<td>Central Market Fund</td>
</tr>
<tr>
<td>CRN</td>
<td>Core Road Network</td>
</tr>
<tr>
<td>CSC</td>
<td>Construction Supervision Consultant</td>
</tr>
<tr>
<td>CWC</td>
<td>Central Water Commission</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------</td>
</tr>
<tr>
<td>DC</td>
<td>District Collector</td>
</tr>
<tr>
<td>DHT</td>
<td>Directorate of Handlooms and Textiles</td>
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<tr>
<td>DKT land</td>
<td>Darakhastu land</td>
</tr>
<tr>
<td>DPC</td>
<td>Direct Purchase Centres</td>
</tr>
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<td>DPC Act</td>
<td>Duties, Powers and Conditions of Service Act, 1971</td>
</tr>
<tr>
<td>DPR</td>
<td>Detailed Project Report</td>
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<td>E&amp;M</td>
<td>Electro-Mechanical</td>
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<tr>
<td>ECV</td>
<td>Estimated Contract Value</td>
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<tr>
<td>EOT</td>
<td>Extension of Time</td>
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<td>Engineering, Procurement and Construction</td>
</tr>
<tr>
<td>EPTRI</td>
<td>Environment Protection Training and Research Institute</td>
</tr>
<tr>
<td>FRL</td>
<td>Full Reservoir Level</td>
</tr>
<tr>
<td>GoAP</td>
<td>Government of Andhra Pradesh</td>
</tr>
<tr>
<td>GoI</td>
<td>Government of India</td>
</tr>
<tr>
<td>GRP</td>
<td>Guru Raghavendra Project</td>
</tr>
<tr>
<td>HNSS</td>
<td>Handri Niva Sujala Sravanthi</td>
</tr>
<tr>
<td>IBM</td>
<td>Internal Bench Mark</td>
</tr>
<tr>
<td>IBRD</td>
<td>International Bank for Reconstruction and Development</td>
</tr>
<tr>
<td>IDEA</td>
<td>Interactive Data Extraction and Analysis software</td>
</tr>
<tr>
<td>IL&amp;FS</td>
<td>Infrastructure Leasing and Financial Services Limited</td>
</tr>
<tr>
<td>IRs</td>
<td>Inspection Reports</td>
</tr>
<tr>
<td>ISAP</td>
<td>Institutional Strengthening Action Plan</td>
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<td>JV</td>
<td>Joint Venture</td>
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<td>Lift Irrigation</td>
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<td>LS</td>
<td>Lump sum</td>
</tr>
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</tr>
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<td>MoEF</td>
<td>Ministry of Environment and Forest</td>
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<td>MoU</td>
<td>Memorandum of Understanding</td>
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<td>NCDEX</td>
<td>National Commodity and Derivatives Exchange Limited</td>
</tr>
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<td>National Highway</td>
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<td>O&amp;M</td>
<td>Operation and Maintenance</td>
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<td>Acronym</td>
<td>Abbreviation</td>
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<td>Road Database Management Software</td>
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<td>RMC</td>
<td>Right Main Canal</td>
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<td>Road Management System</td>
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<td>Road User Satisfaction Survey</td>
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<tr>
<td>SDC</td>
<td>Special Deputy Collector</td>
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<tr>
<td>SITP</td>
<td>Scheme for Integrated Textile Parks</td>
</tr>
<tr>
<td>SPV</td>
<td>Special Purpose Vehicles</td>
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<td>SSR</td>
<td>Standard Schedule of Rates</td>
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<td>TMC</td>
<td>Thousand Million Cubic Feet</td>
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<td>USD</td>
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<td>Visakhapatnam Urban Development Authority</td>
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<tr>
<td>WTP</td>
<td>Water Treatment Plant</td>
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<td>Water User Association</td>
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