



SUPREME AUDIT INSTITUTION OF INDIA  
लोकहितार्थ सत्यनिष्ठा  
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# Report of the Comptroller and Auditor General of India on Polavaram Irrigation Project



Government of Andhra Pradesh  
Report No. 4 of 2025  
(Performance Audit - Civil)



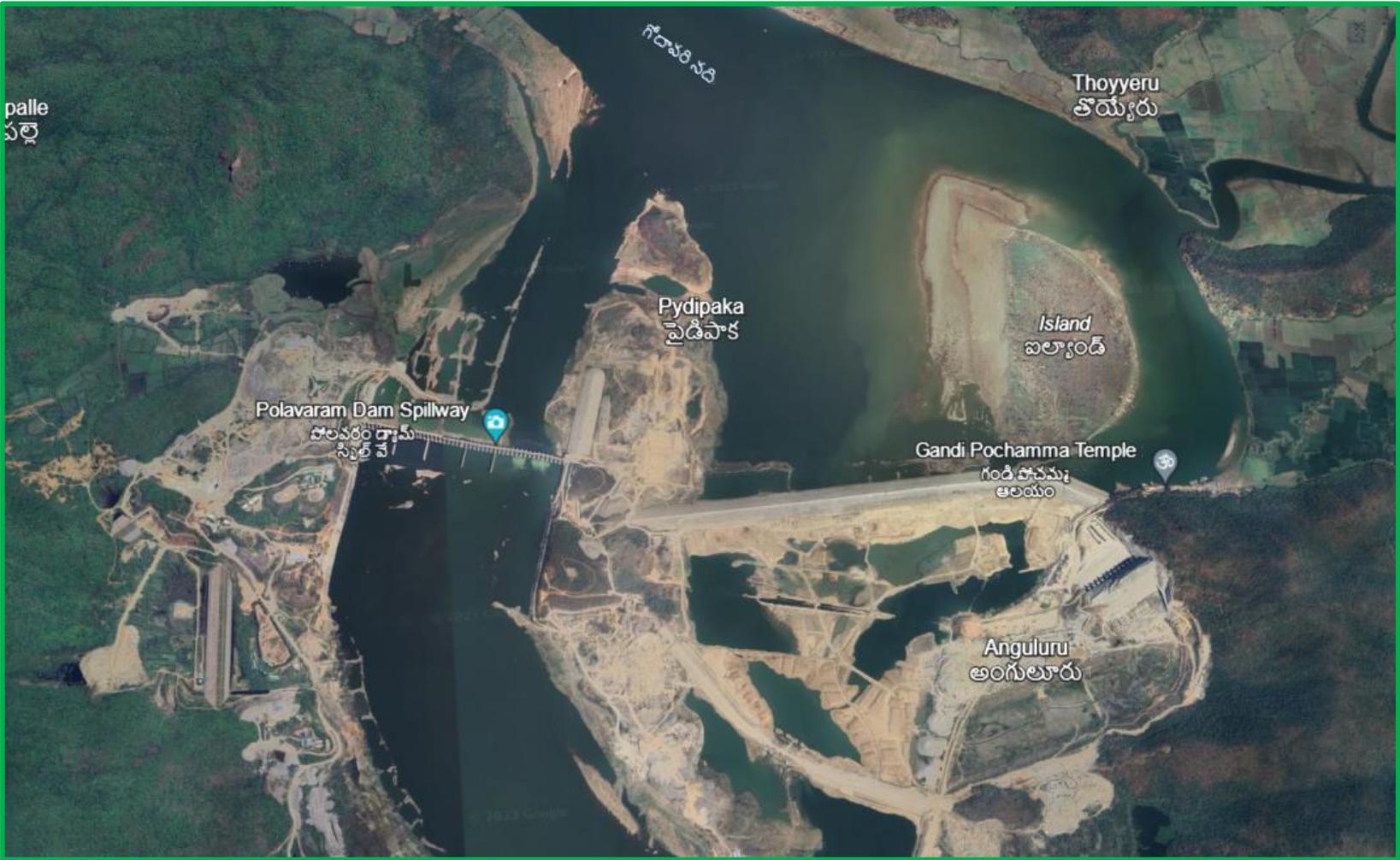
Performance Audit Report of the  
Comptroller and Auditor General of India  
on Polavaram Irrigation Project

for the year ended March 2023  
(Water Resources Department)

Government of Andhra Pradesh  
Report No. 4 of 2025  
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# POLAVARAM PROJECT SITE





# Table of Contents

Description	Reference to	
	Paragraph Number	Page Number
<b>Preface</b>		ix
<b>Executive Summary</b>		xi
<b>Chapter I: Introduction</b>		
<b>Background of the Project</b>	1	1
Declaration as National Project	1.1	3
Organisational setup	1.2	4
Audit Objectives	1.3	5
Audit Criteria	1.4	5
Audit Scope and Methodology	1.5	5
Acknowledgement	1.6	7
<b>Chapter II: Financial Management and Environmental Aspects</b>		
<b>Financial Management</b>	2.1	9
Budget Allotment and Expenditure	2.1.1	9
Pendency of bills	2.1.2	13
Central Assistance to the Project	2.1.3	14
Delay in submission of requisite documents to PPA	2.1.3.1	15
Delay in Investment Clearance	2.1.3.2	16
<b>Status of the Project</b>	2.2	17
Status of Civil Works	2.2.1	18
Status of Land Acquisition	2.2.2	20
Status of Rehabilitation & Resettlement	2.2.3	21
<b>Environmental Aspects</b>	2.3	21
Non-compliance to conditions stipulated by Ministry of Environment & Forest	2.3.1	21
Construction of protective embankments in neighbouring States	2.3.2	22
Implementation of Lift Schemes without statutory approval	2.3.3	23
Non-maintenance of environmental and ecological balance	2.3.4	25
<b>Chapter III: Construction of Headworks and Powerhouse</b>		
<b>Construction of Headworks</b>	3.1	29
Planning Process	3.1.1	31
Non-adoption of planning tools for effective implementation of project	3.1.1.1	31
Non-adherence to the planned construction schedule led to damage of Diaphragm Wall	3.1.1.2	32
Grounding of works without prior approval of competent authority	3.1.1.3	35
Non-handing of clear title of land for execution of left side connectivities	3.1.1.4	37
Awarding of works	3.1.2	38
Pre-closure of work on the recommendation of expert committee which had no scope in National Project	3.1.2.1	38

Arbitrariness in selection of contract agency and undue benefit thereon	3.1.2.2	40
Execution of works	3.1.3	44
Delayed entrustment of works	3.1.3.1	44
Undue financial assistance to contract agencies	3.1.3.2	46
Avoidable liability towards expenditure on treatment of collapsed tunnel	3.1.3.3	50
Avoidable expenditure towards rectification works	3.1.3.4	50
Quality Control	3.1.4	51
Issuance of quality control certificates	3.1.4.1	52
<b>Construction of Powerhouse</b>	3.2	52
Execution of works by first contract agency	3.2.1	54
Incorrect inclusion of clause for payment of interest free advance in the agreement	3.2.1.1	55
Acceptance of bank guarantees with short validity period	3.2.1.2	55
Delay in claim for goods and service tax paid	3.2.1.3	56
Execution of works by second contract agency	3.2.2	57
Sanction of interest free advance	3.2.2.1	57
Advance procurement of Electro-Mechanical components	3.2.3	58
<b>Chapter IV: Construction of Canals</b>		
<b>Introduction</b>	4.1	61
<b>Construction of Right Main Canal</b>	4.2	62
Execution of works of Right Main Canal	4.2.1	63
Change in canal alignment after entrustment of work	4.2.1.1	63
Incorrect adoption of unit rate	4.2.1.2	64
<b>Construction of Left Main Canal</b>	4.3	65
Planning for construction of LMC	4.3.1	66
Improper assessment of revised quantities led to non-approval and stoppage of work	4.3.1.1	66
Stoppage of work due to pendency of Land Acquisition and R&R	4.3.1.2	67
Delayed decision in entrustment of works	4.3.1.3	68
Execution of Left Main Canal	4.3.2	68
Incorrect sanction towards additional structures	4.3.2.1	68
Non-settlement of accounts of the contract agencies	4.3.2.2	70
<b>Issues relating to both Right and Left Main Canal</b>	4.4	70
Delay in preparation of Detailed Project Reports for distributary network	4.4.1	70
Accountability and disposal of excavated earth	4.4.2	71
Non-disposal of spoil earth	4.4.2.1	71
Theft of spoil earth	4.4.2.2	72
Non-recovery of extra cost from original contract agency for completion of balance works	4.4.3	72
Diversion of project land for housing scheme	4.4.4	73
Non recovery of dues from contract agencies	4.4.5	74
<b>Chapter V: Land Acquisition</b>		
<b>Introduction</b>	5.1	75
Process of Land Acquisition	5.1.1	76
Status of Land Acquisition	5.1.2	77
<b>Planning process for Land Acquisition</b>	5.2	78

Slow progress of Land Acquisition	5.2.1	78
Lack of consistency in assessment of land	5.2.2	79
Decrease in extent of government and forest land for acquisition	5.2.3	81
Discrepancy in land assessment data	5.2.4	83
Inordinate delay in publication of Preliminary Notification and uploading in the government website	5.2.5	84
<b>Declaration and passing of Land Acquisition awards</b>	5.3	85
Passing of land awards without proper ownership records	5.3.1	86
<b>Payment of award compensation</b>	5.4	87
Incorrect interpretation of Act provisions led to excess fixation of land compensation	5.4.1	87
Deposit of compensation amount in the Authority Account	5.4.2	88
Non-maintenance of records of Authority Account	5.4.2.1	88
Payment of disputed amount to ineligible landowners	5.4.2.2	89
Payment of Land Acquisition compensation for ineligible land	5.4.3	90
Payment of Land Acquisition award compensation for Khalsa land	5.4.3.1	90
Avoidable financial burden due to delay in passing of awards	5.4.4	92
Delay in passing of awards for village site along with agricultural land	5.4.4.1	92
Inordinate delay in passing of awards after disposal of court cases	5.4.4.2	93
Delay in acquisition of assigned land	5.4.4.3	94
Payment of land compensation without validation	5.4.5	95
Payment of compensation amount for unclaimed land	5.4.5.1	95
Payment of compensation without ownership records	5.4.5.2	96
Land-to-land apportionment made more than the prescribed limit	5.4.6	96
<b>Chapter VI: Implementation of Rehabilitation and Resettlement</b>		
<b>Introduction</b>	6.1	99
Rehabilitation and Resettlement process	6.1.1	100
Status of Rehabilitation and Resettlement	6.1.2	101
<b>Identification of project affected habitations and displaced families</b>	6.2	104
Incorrect identification of habitations between contours	6.2.1	105
Inconsistency in data on Project Displaced Families	6.2.2	106
Delay in completion of census after issuing Preliminary Notification	6.2.3	107
Timelines for implementation and creation of web-based workflow of R&R Scheme	6.2.4	108
Implementation of R&R Schemes without time frame	6.2.4.1	108
Creation of web-based workflow for R&R activities	6.2.4.2	109
Non-inclusion of basic data in R&R Scheme	6.2.5	109
<b>Implementation of Rehabilitation &amp; Resettlement Benefits</b>	6.3	110
Land Acquisition for R&R activities	6.3.1	111
Pending acquisition of land for R&R colonies	6.3.1.1	111
Acquisition of unfit land for cultivation	6.3.1.2	112
Non-provisioning of amenities to R&R colonies	6.3.1.3	113
Land Acquisition towards land-to-land	6.3.2	114

Allotment of land under land-to-land	6.3.2.1	114
Allotment of land-to-land to ineligible beneficiaries	6.3.2.2	115
Allotment of land more than the permissible limit	6.3.2.3	116
Implementation of Rehabilitation & Resettlement cash benefits	6.3.3	117
Payment of cash benefits	6.3.3.1	117
Non-payment of additional R&R package to Project Displaced Families	6.3.3.2	118
Provisioning of housing units	6.3.4	119
Housing units kept vacant for want of essential amenities	6.3.4.1	119
Non-provision of additional common facilities	6.3.4.2	121
Unfruitful expenditure due to non-completion of compound wall	6.3.5	122
<b>Monitoring Mechanism and Other Issues</b>	6.4	123
Delayed formation of Project Administrator Office	6.4.1	124
Functioning of R&R units with meagre staff	6.4.2	124
Lack of effective mechanism for speedy disposal of grievances	6.4.3	124
Non conduct of Social Audits in R&R colonies	6.4.4	125
<b>Chapter VII: Beneficiary and Amenity Survey</b>		
<b>Introduction</b>	7.1	127
Data collection and sampling	7.1.1	128
Survey methodology and conduct of survey	7.1.2	129
<b>Beneficiary Survey Observations</b>	7.2	130
Land Award Compensation	7.2.1	130
Rehabilitation & Resettlement cash compensation	7.2.2	131
Provision of housing units and quality of construction	7.2.3	132
Stamp duty and registration fee for land or house allotted	7.2.4	133
Land-to-land allotment and irrigation facilities	7.2.5	133
Grievance Redressal	7.2.6	134
Skill Development Plan for Scheduled Caste and Tribal youth	7.2.7	135
<b>Outcomes of Amenity Survey</b>	7.3	135
Provisioning of roads with suitable transport facility	7.3.1	136
Provisioning of school for children	7.3.2	136
Playground for children	7.3.3	137
Availability of Anganwadi Centre and supplemental nutritional services	7.3.4	137
Primary health and Sub-health Centre	7.3.5	138
Provisioning of Safe Drinking Water	7.3.6	139
Provisioning of drainage system	7.3.7	140
Provisioning of tap connections to individual toilet points	7.3.8	140
Provisioning of irrigation facility	7.3.9	141
Provisioning of grazing land in R&R colonies	7.3.10	141
Provisioning of Drinking Water for cattle	7.3.11	141
Availability of Veterinary Service Centre	7.3.12	142
Forest Rights	7.3.13	143
Separate land earmarked for traditional tribal institutions	7.3.14	143
Provisioning of burial or cremation ground	7.3.15	143
Availability of Community Centres	7.3.16	144
Places of worship and chowpal/tree platform	7.3.17	144
Availability of Fair Price Shops	7.3.18	144

Establishment of Panchayat Offices	7.3.19	145
Establishment of Post Offices	7.3.20	145
Seed-cum-Fertiliser storage facility	7.3.21	146
Household electric connection	7.3.22	146
Security arrangements	7.3.23	147
<b>Other observations beyond the survey mandate</b>	7.4	148
Construction of Anganwadi Centres not in accordance with norms prescribed	7.4.1	148
Provisioning of livelihood security to resettled PDFs	7.4.2	148
Handing over of R&R colonies to the concerned Local Bodies	7.4.3	149
<b>Appendices</b>		151-196
<b>Glossary</b>		197-199
<b>Glossary of Technical Terms</b>		199



## Appendices

Appendix Number	Subject	Reference to	
		Paragraph Number	Page Number
1.1	Statement showing the purpose and benefits of the Project	1.1	151
1.2	Statement showing the various components of the Project	1.1	152
2.1 (A)	Statement showing various contract agencies involved in execution of Headworks	2.2.1	154
2.1 (B)	Statement showing various contract agencies involved in execution of Canals	2.2.1	156
3.1	Details of Special Imprest advanced, recoveries made and interest to be levied	3.1.3.2 (a)	167
3.2	Interest to be collected (at 11 <i>per cent</i> ) on amount paid through Special Revolving Fund	3.1.3.2 (b)	168
3.3	Details of assets and liabilities of M/s TRANSSTROY-JSC EC UES (JV), Hyderabad	3.1.3.2 (c)	169
3.4	Pending compliance with Quality Control remarks by the Construction Divisions	3.1.4.1	169
3.5	Statement showing the amount of interest free advance given for procurement of steel	3.2.2.1	170
3.6	Statement showing the date of procurement of E&M equipment / components and Interest During Construction (IDC) paid	3.2.3	171
4.1	Status of all packages in RMC given on EPC mode	4.2	172
4.2	Statement showing the details of percentage of earthwork done and paid	4.2.1.1	172
4.3	Status of all packages in LMC given on EPC mode	4.3	173
4.4	Increase in cost due to delayed entrustment of National Highway crossings (Bridges)	4.3.1.3	173
4.5	Statement showing the amounts to be recovered from the original contract agencies as difference of execution cost due to entrustment of works deleted under clause 60 (C) of APDSS to new contract agencies	4.4.3	174
4.6	Statement showing the details of recoveries not made by the Department	4.4.5	175
5.1	Procedure for Land Acquisition	5.1.1	175
5.2 (A)	Statement showing variation in extent of Patta Land as per WRD and Revenue Department	5.2.4 (i)	177
5.2 (B)	Statement showing variation in extent of Government Land as per WRD and Revenue Department	5.2.4 (ii)	177
5.2 (C)	Statement showing variation in extent of D-Patta Land as per WRD and Revenue Department	5.2.4 (iii)	178
5.3	Statement showing time gap in issue of Preliminary Notification after receipt of LP Schedule	5.2.5 (i)	178
5.4	Statement showing incorrect land awards to individual whose names were not found in Revenue records	5.3.1	179

Appendix Number	Subject	Reference to	
		Paragraph Number	Page Number
5.5	Cases where excess extent of land-to-land awarded to the beneficiary in Sarugudu	5.4.6	181
5.6	Cases where excess extent of land-to-land awarded to the beneficiary in Yerravaram	5.4.6	182
5.7	Cases where excess extent of land-to-land awarded to the beneficiary in Telladibbalu	5.4.6	183
5.8	Cases where excess extent of land-to-land awarded to the beneficiary in Sivagiri	5.4.6	183
5.9	Cases where excess extent of land-to-land awarded to the beneficiary in Dandangi	5.4.6	184
6.1	Statement showing delay between date of publication of PN and completion of SES	6.2.3	184
6.2	Cases of land-to-land where excess extent was allotted than acquired from PDFs	6.3.2.1 (i)	185
6.3	Cases of lesser extent of land-to-land allotted than the land acquired from PDFs	6.3.2.1 (ii)	186
6.4	Cases of land-to-land allotted to persons whose names are not in the LA Awards	6.3.2.2	187
6.5	Cases of land-to-land allotment more than the maximum permissible limit	6.3.2.3	190
6.6	Details of PDFs shifted without payment of entitled R&R cash benefits	6.3.3.1	191
6.7	Progress in construction of R&R colonies	6.3.4.1	193
7.1	Statement showing the methodology adopted for sample selection	7.1.1 (a)(b)	193
7.2	Statement showing the infrastructure and basic amenities to be provided in R&R colonies	7.3	194
7.3	Statement showing the details of sampled R&R colonies	7.3	195
7.4	Construction of Anganwadi Centres in R&R colonies	7.4.1	196

## Preface

*This Report of the Comptroller and Auditor General of India has been prepared for submission to the Governor of Andhra Pradesh under Article 151 of the Constitution of India. The Audit has been carried out in line with the Regulations on Audit and Accounts, 2007 (revised in August 2020) and Performance Audit Guidelines, 2014 of the Comptroller and Auditor General of India.*

*The Report contains significant results of Performance Audit on 'Polavaram Irrigation Project', covering the period 2017-18 to 2022-23.*

*The instances mentioned in this Report are among those which came to notice in the course of test audit.*

*Audit wishes to acknowledge the assistance and co-operation extended by the officers and staff of Water Resources Department, Project Administrator, Special Collector (Land Acquisition), Government of Andhra Pradesh, Polavaram Project Authority, the Chief Engineer, APGENCO for the Performance Audit.*



# Executive Summary

## Background

Polavaram Irrigation Project (PIP) is a multipurpose project on the river Godavari near Ramayyapeta Village of Polavaram Mandal about 42 km upstream of Sir Arthur Cotton Barrage, where the river emerges out of the last range of the Eastern Ghats and enters the plains in erstwhile West Godavari District of Andhra Pradesh State. It envisages construction of a dam to create an ultimate irrigation potential of 2.91 lakh hectare. The project also envisages generation of 960 Mega Watt of hydro power, drinking water supply to a population of 28.50 lakh in 540 villages and diversion of 80 Thousand Million Cubic feet (TMC) of water to Krishna River basin. In a way, the project heralds a wide range of developmental activities across the State of Andhra Pradesh.

Initially, the construction of the project began in 2004-05 with the funds of the Government of Andhra Pradesh (GoAP). Subsequently, in 2014, it was declared as a National Project as per Section 90 Part IX of the Andhra Pradesh State Re-organisation Act, 2014. The Act mandates Government of India (GoI) to execute the project and obtain all requisite clearances including environmental, forest, and rehabilitation and resettlement norms. In pursuance of the Act, Ministry of Water Resources or Ministry of Jal Shakti, GoI constituted a governing body to Polavaram Project Authority (PPA). On behalf of GoI, PIP is being executed by the Water Resources Department (WRD) of GoAP. The execution of civil works of all components of the Project, Land Acquisition (LA) and Rehabilitation & Resettlement (R&R) activities are being carried out by WRD, GoAP. The expenditure incurred by GoAP through its budgetary resources is being reimbursed by GoI. However, the cost of Polavaram Hydro Electric Project (PHEP) would be wholly borne by GoAP.

The Comptroller & Auditor General of India has reviewed the implementation of PIP as a part of the Jalayagnam Report (Report No. 2 of 2012) covering the period April 2006 to March 2010 and also in the year 2017 (Report No.4 of 2018) covering the period April 2012 to March 2017 of Government of Andhra Pradesh. The Jalayagnam Report was partially discussed by the Public Accounts Committee (PAC), however, no recommendations were made. Report No. 4 of 2018 was yet to be discussed by the PAC.

The present Performance Audit was undertaken between June 2022 to June 2023 covering the period 2017-18 to 2022-23. This report also includes the updated position of the issues covered in the earlier Audit Reports, wherever such issues have contemporary relevance. It also covers the events that occurred during the prior period but not covered in the earlier Audit Report.

The Performance Audit of PIP was taken up with an objective to assess the effectiveness in planning and execution of Headworks (for required water storage), Powerhouse (power generation capacity), Right and Left Main Canals with required last mile connectivities to cater the needs of industries, irrigation and drinking water requirements. The audit objectives also included assessment of transparency, fairness and efficiency in acquisition of land by balancing public interest with project requirement and R&R activities for socio-economic benefits to the Project Displaced Families (PDFs). The audit also involved a beneficiary and amenities survey

to assess whether land compensation and R&R benefits were extended to PDFs as envisaged in the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013.

### Present Status of the Project

As of March 2023, Headworks / main dam works costing to ₹7,422.69 crore were awarded and an expenditure of ₹5,757.48 crore was incurred. Even after a lapse of 17 years, the Headworks remained incomplete. The overall physical and financial progress of works of Left Main Canal (LMC) and Right Main Canal (RMC) was 76.05 & 72.62 per cent and 96.14 & 92.75 per cent respectively. The physical and financial progress of Polavaram Hydro Electric Power project was only 12 and 17 per cent respectively.

Against the land requirement of 1,79,770 acres, requisitions were filed for 1,67,765 acres and an extent of 1,13,119 acres, i.e., 67.43 per cent, has been acquired.

The Project involves submergence of 373 habitations in 222 revenue villages, affecting 1,06,006 Project Displaced Families (PDFs). A total of 213 R&R colonies were contemplated at an estimated cost of ₹13,262 crore. As of March 2023, a total of 26 R&R colonies were completed, 49 colonies were in progress and 11,677 PDFs were shifted to the R&R colonies.

The major findings of the Performance Audit are presented below:

#### A. Financial Management and Environmental aspects

There was a drastic decrease in budgetary support to the Project by GoAP during 2019-23, when compared to 2018-19. The percentage utilisation of budget provided ranged between 21 to 66 during 2017-23. The expenditure incurred was largely focused on works component, giving least priority to LA and R&R activities. ***It is recommended that the State Government should ensure adequate budgetary support and enforce upon the Department for optimum utilisation of allocated funds for timely completion of the project.***

Revised Cost Estimate (RCE) submitted for 2017-18 Price Level by GoAP remained unapproved by GoI, due to delay in completion of Socio-Economic Survey and approval of Detailed Project Report (DPR) by PPA/Central Water Commission (CWC) for distributary network. ***It is recommended that the State Government should expedite the Socio-Economic Survey process and obtain approval of DPR by the CWC for the distributary network, to facilitate the approval of the RCE by GoI for timely completion of the project.***

Construction of protective embankments to the submergence villages in the neighbouring States of Chhattisgarh and Odisha, due to be completed by 2014-15, was not yet commenced by GoAP, as public hearing was not done by the concerned States. ***It is recommended that the State Government, in consultation with PPA, should address the submergence issues with the respective States and ensure timely construction of protective embankments to prevent submergence in those States.***

The GoAP unilaterally implemented two lift irrigation schemes without the approval of Central Water Commission, National Green Tribunal (NGT) and PPA which attracted environmental compensation to be paid to NGT. An additional expenditure was necessitated for scientific disposal of spoil earth, as per the directions of NGT, which was not done previously in line with agreement conditions. ***It is recommended that the State Government should be vigilant***

*to avoid violation of environmental laws and obtain all mandatory environmental and ecological clearances prior to commencement of work, necessitating such clearances.*

## **B. Planning and execution of Headworks and Canals**

The initial requirement (as per DPR) for commencing the construction of the Cofferdams and subsequently the Diaphragm Wall (D-Wall) in the deep course portion, is the diversion of the river course through the Spillway and Spill Channel. Due to deviation from the planned construction schedule and also due to the absence of a contract agency to mitigate the flood situation, the floodwater was obstructed from flowing through its normal course. The diversion of floodwater was not possible due to non-completion of construction of Spillway and Spill Channel. This resulted in floodwater passing through the available gaps of Cofferdam, causing damage to the partially constructed Cofferdams and D-Wall. As of March 2023, the rectification of the D-Wall has not been undertaken. ***It is recommended that the State Government should ensure that the formulated construction schedule is adhered to, for smooth execution of the main dam work and finalise the long pending rectification work of damaged D-Wall.***

There were instances of awarding of works on nomination basis duly revising the estimate in violation of rules, finalisation of contract agency by altering tender conditions and rules selectively and awarding of works to single tenderer in contravention to government rules for reverse tendering process. ***It is recommended that the State Government should develop a fair and transparent tendering process that ensures compliance with prescribed rules and government orders to have / promote competitive bidding.***

Interest free Special Revolving Fund and Special Imprest were sanctioned to the contract agencies at the time of execution of works, in contravention to the laid down rules. This led to loss of interest to the Department and undue favour to the contract agencies. In execution of Polavaram Hydro-Electric Project (PHEP), the Department extended interest free advances causing loss of interest to be earned. Bank Guarantees (BGs) submitted by contract agency did not cover the entire contract period and were not encashed prior to termination of contract. ***It is recommended that the State Government should ensure that advances are paid to the contract agencies in line with the existing rules and regulations. Any financial support extended to contract agencies should include a reasonable interest component and backed by supporting BGs for the amount advanced.***

Procurement of Electromechanical (E&M) material/equipment without immediate need, not only resulted in idling of material but also led to payment of avoidable interest on the loan component taken from Rural Electrification Corporation Limited for construction of PHEP. ***It is recommended that the Electromechanical material be procured in consonance with the execution of work and as per the actual requirement, as the PHEP construction is funded through an interest-bearing loan component.***

The change in Right Main Canal (RMC) alignment after execution of work resulted in wasteful expenditure towards the earthwork excavation already carried out. Boosting up of unit rate for earthwork excavation in the Internal Benchmark (IBM) of Package-6 of RMC resulted in additional financial burden. ***It is recommended that the State Government should ensure***

***robust design planning to minimise deviations during project execution and meticulously prepare estimates to avoid unnecessary payments.***

The delay in Land Acquisition and the inaccurate estimates prepared by the Department led to a significant increase in the quantities to be executed in the LMC. Ineffective monitoring of the works by the Department after entrustment caused delays in execution by the original contract agencies, resulting in the stoppage of work in four out of the eight packages. The proposals submitted (between October 2020 and November 2021) to GoAP for completing the remaining work in these four packages, are still pending approval with GoAP.

Engineering Procurement Construction (EPC) system of contract mandates the contractor to execute the total work as a whole irrespective of the number of structures provided in the IBM. Increase in number of structures can be considered only if there are changes in basic project parameters. Though there being no change in basic parameters, a sanction towards payment for additional structures in package-7 of LMC was made which resulted in undue advantage to contract agency by ₹15.74 crore. ***It is recommended that the State Government should streamline the procedures relating to EPC contracts including the deliverables, scope and specification of work to avoid undue advantage to the contractors and loss to exchequer due to variation in quantities / number of structures.***

There were huge quantities of spoil earth lying at works site all along both the canals without proper accountal in the specified register/form. Also, there were instances of theft of spoil earth without any action by the Department. The Department has not taken any action for proper accountal, safe custody and disposal of spoil earth. ***It is recommended that the State Government should instruct the Department to account for the excavated spoil earth properly and implement safety measures to prevent any kind of theft.***

### **C. Land Acquisition and Rehabilitation and Resettlement**

Out of the total land requirement, the Department could acquire 67.43 *per cent* of land since the inception of the project. There was a variation between the figures depicted in the Detailed Project Report (DPR) and the respective years Revised Cost Estimate (RCE) with respect to the land requirement, number of villages / habitations under submergence, number of PDFs to be rehabilitated, *etc.* Discrepancies were identified in the extent and classification of land as requisitioned by the Department, compared to the survey reports or land awards of Revenue records. Additionally, land awards were issued without verifying proper ownership records. ***It is recommended that the State Government should determine the extent of land under submergence in alignment with Revenue records, PDFs affected, land required for R&R activities and submit a detailed report to GoI for early approval of Revised Cost Estimate.***

There was drastic decrease in extent of government and forest land to be acquired, with corresponding sharp increase in assigned/encroached government land during the period from 2010-11 to 2017-18 RCE causing additional financial burden towards land cost. The Department failed to take timely action to prevent encroachments and eviction of encroachers. This led to an avoidable financial burden of ₹619.83 crore to the Government in the form of compensation to be paid, besides time over run on the project works. Further, the revenue records were not updated promptly as and when lands were assigned, resulting in incorrect reporting of classification wise extent of land. ***It is recommended that the State Government***

***should take effective steps to protect its land from encroachment and also refrain from assigning land to the landless after notification of an 'area under submergence' to avoid payment of compensation for acquiring back the same land.***

The PIP involves rehabilitation of 1,06,006 PDFs. As of March 2014 (prior to declaration as a National Project), only 0.67 *per cent* of the total number of PDFs were rehabilitated. Even after a lapse of 17 years, only 11 *per cent* of PDFs have been relocated to R&R colonies. Out of 213 proposed R&R colonies, the works in 138 R&R colonies were yet to be commenced. Of the total land requirement of 8,581.05 acres for construction of 213 R&R colonies, only 2,756.72 acres of land had been acquired. The delay in completion of rehabilitation of targeted PDFs led to an increase in estimated cost by ₹19,346.49 crore due to increased R&R compensation cost after introduction of RFCTLARR Act, 2013.

Against the targeted expenditure of ₹7,270.41 crore for payment of R&R cash benefits to 1,06,006 PDFs, only ₹841.34 crore was paid to 14,500 PDFs. Out of 13,938 housing units sanctioned in 49 colonies, 11,507 units were completed and only 6,216 PDFs were shifted to completed units. Many of the completed units lacked the basic amenities *viz.*, toilets, drinking water, electrical connections, *etc.* Under land-to-land allotment, there were instances of short/excess allotment of land including the allotment exceeding the permissible limit. ***It is recommended that the State Government should expedite Land Acquisition for R&R activities and fast track the R&R activities, to relocate the Project Displaced Families prior to impounding of water into reservoir.***

#### **D. Beneficiary and Amenity Survey**

Beneficiary survey of 418 PDFs in 12 R&R colonies and 313 PDFs in six habitations revealed that about 40 and 24 *per cent* PDFs did not receive land award and R&R cash compensation respectively. About 31 *per cent* PDFs expressed dissatisfaction with interior quality of housing units as there were cracks on walls, seepage of ceiling, flooring problems, *etc.* The housing units given to PDFs were not registered in the names of the PDFs. Land-to-land allotment was not made to 36 *per cent* of PDFs though eligible. The eligible (95 *per cent*) Scheduled Caste and Tribe youth were not provided with Skill Development Training.

Amenities survey of 12 sampled R&R colonies revealed that the colonies did not have proper internal or external roads, 42 *per cent* R&R colonies did not have school and where established, were non-functional; in 83 *per cent* R&R colonies playground for children was not provided. Basic health facilities *viz.*, Primary Health Centres/Sub-Health Centres were not established in 83 *per cent* R&R colonies and where established were non-functional, Anganwadi Centres were not established in 58 *per cent* of R&R colonies, Veterinary Service Centre was not provided in almost all R&R colonies, 92 *per cent* R&R colonies had open drainage system and tap connections were not provided to toilets in all R&R colonies. Fair Price Shops to provide free ration to PDFs was not available in 67 *per cent* of R&R colonies. GoAP attributed shortfall to limit on per PDF cost fixed by GOI. ***It is recommended that the State Government should accelerate the process of creating necessary infrastructural amenities for the well-being of PDFs.***



# Chapter I

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## **Introduction**

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## Chapter I Introduction

### 1. Background of the Project

The Polavaram Irrigation Project (PIP), contemplated as a multipurpose project, is located in Andhra Pradesh on the river Godavari, near Ramayyapeta Village of Polavaram Mandal in erstwhile West Godavari District, about 42 Km upstream of Sir Arthur Cotton Barrage, Dowlaiswaram.

The first conceptual proposal and survey for PIP originated (July 1941) from the erstwhile Madras Presidency named as “Ramapada Sagar Project”. However, the project did not materialise due to various reasons *viz.*, high cost involved, non-agreement on submergence aspects among neighbouring States, *etc.*

After a chain of deliberations, the States of erstwhile Andhra Pradesh, erstwhile Madhya Pradesh<sup>1</sup>, Maharashtra and Odisha entered into an agreement in 1980 resolving the submergence aspects of PIP. This agreement was made part of the final order (Clause VI) of the Godavari Water Disputes Tribunal (GWDT). The Tribunal issued final orders directing the Government of Andhra Pradesh (GoAP) to obtain clearance for PIP from Central Water Commission (CWC) for Full Reservoir Level (FRL) of (+)150 feet.

Subsequently, based on the final adjudication of GWDT, the reports on the PIP were presented (1982) to CWC for the first Phase comprising Headworks and Left Main Canal (LMC) and second Phase (1984) namely Right Main Canal (RMC) at an estimated cost of ₹2,665 crore (as per Standard Schedule of Rates (SSR) 1985-86). CWC, Government of India (GoI) while communicating<sup>2</sup> further comments on hydrological aspects, requested (July 1989) to submit modified updated project report. The project report was updated time to time and a comprehensive modified project report as suggested by CWC was prepared and the project cost was arrived/estimated for ₹10,151.05 crore<sup>3</sup>.

The project was designed to irrigate 2.91 lakh hectares<sup>4</sup> (7.20 lakh acres) in four districts<sup>5</sup> of Andhra Pradesh, besides generation of 960 Mega Watt (12 turbines X 80 Mega Watt) of Hydel power, transfer of 80 Thousand Million Cubic feet (TMC) to the Krishna basin and supply of water to Visakhapatnam city for drinking and industrial use. Major part of the project is spread in Andhra Pradesh and also certain parts of Telangana, Chhattisgarh and Odisha States. The Index map of PIP is depicted in **Picture-1.1**.

<sup>1</sup> now Chhattisgarh is the participant State of this agreement, along with Telangana (carved out of erstwhile Andhra Pradesh)

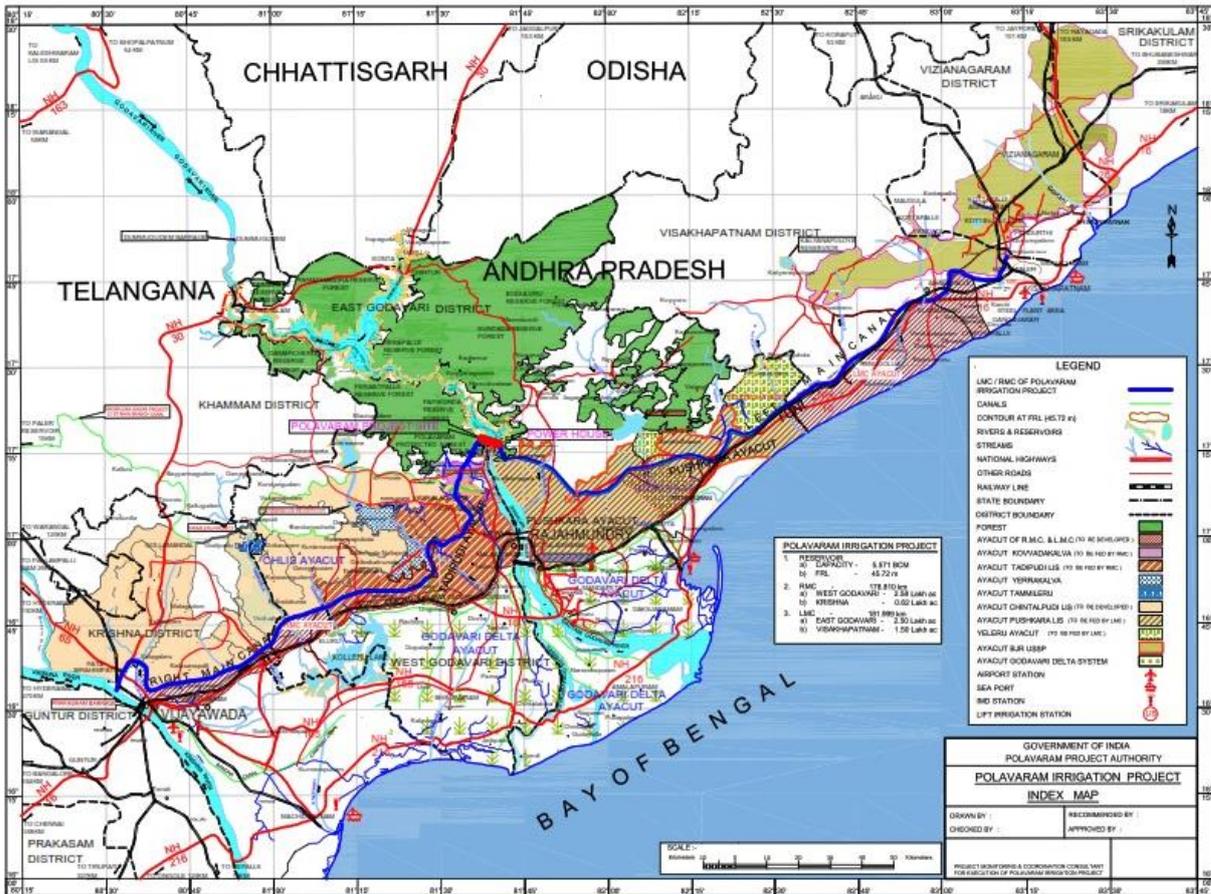
<sup>2</sup> letter No. 6/125/87-PA(S)/866 dated 27.07.1989

<sup>3</sup> based on Standard Schedule of Rate 2003-04 to 2005-06

<sup>4</sup> one hectare = 2.47105 acre

<sup>5</sup> erstwhile districts of East Godavari, West Godavari, Krishna and Visakhapatnam

Picture 1.1: Index Map of Polavaram Project



Source: Polavaram Project Authority ([ppa.gov.in](http://ppa.gov.in))

The Government of Andhra Pradesh (GoAP) grounded the Polavaram Irrigation Project in 2004 comprising of three main components, viz., Headworks along with left<sup>6</sup> and right<sup>7</sup> connectivities, LMC and RMC. The Headworks contemplates construction of 2,454 m long Earth-Cum-Rock-Fill (ECRF) dam, a Spillway<sup>8</sup> on the right flank saddle, to regulate the design flood discharge of 36 lakh cusecs at an upstream flood disposal level of (+) 42.62 m. The Reservoir, thus formed, submerges an area of 601 Sq. Km at FRL (+) 45.72 m with a live storage capacity of 75.20 TMC. The Powerhouse is to be constructed at the slope of the ‘D’ hill, to the left of ECRF dam with an installed capacity of 960 Mega Watt (MW).

The LMC, proposed as a lined canal and designed for a discharge capacity of 496.21 cumecs, takes-off from the left connectivities planned for a length of 211.27 Km<sup>9</sup>. The RMC, proposed as a lined canal and designed for a discharge capacity of 497.77 cumecs, takes-off from the right connectivities planned for a length of 178.81 Km. The Right Main Canal is proposed to drop in the Budameru River and ultimately empties into the River Krishna through the Budameru Diversion Canal.

<sup>6</sup> comprises of a Leading Channel, Off-take Regulator, Head Regulator, Navigation Lock, Navigation Channel, Navigation Tunnel, Irrigation Tunnel, Saddle Dam KL, Head Locks, etc.

<sup>7</sup> comprises of a Head Regulator, Off-take Regulator, Saddle Dams E&F, two Bunds, two Twin Tunnels with Entry and Exit Channels, etc.

<sup>8</sup> 1,128.40 m long with crest level of (+) 25.72 m with 48 numbers of radial gates (each 16m (width) x 20m (height))

<sup>9</sup> Main canal: 177.81 Km + Existing water supply channel: 22.61 Km + New water supply channel: 10.85 Km

For the feasibility of execution, the project works were divided into 22 packages (Headworks: One package; Left connectivities including Navigation Channel: three packages; Right connectivities: three packages, LMC: eight packages and RMC: seven packages).

The PIP was accorded (January 2009) clearance by the Technical Advisory Committee (TAC) of Ministry of Water Resources (MoWR), Government of India (GoI) for an estimated cost of ₹10,151.05 crore based on 2003-04 to 2005-06 Price Level (PL), with scheduled completion in 12 years. In 2011, GoAP revised the Cost Estimate (1<sup>st</sup> RCE) of the project to ₹16,010.45 crore with 2010-11 PL, which was accepted<sup>10</sup> (January 2011) by TAC of MoWR. As of March 2014, the total expenditure incurred on the project by GoAP was ₹4,730.71 crore (₹562.47 crore received as Central Assistance under Accelerated Irrigation Benefit Programme) and the balance estimated cost to be incurred was ₹11,279.74 crore. Investment clearance was accorded (February 2017) for 1<sup>st</sup> RCE for ₹16,010.45 crore with revised scheduled completion date as December 2018.

### 1.1 Declaration as National Project

On bifurcation of the State of Andhra Pradesh, PIP was declared (March 2014) as a National Project under Section 90 of Andhra Pradesh Re-Organisation Act, 2014. As per terms of the Act, GoI shall fund the cost of irrigation component<sup>11</sup> starting from April 2014.

As per present arrangement between GoAP and GoI, GoAP would execute the project on behalf of GoI and the expenditure incurred by GoAP through its budgetary resources would be reimbursed by GoI. The project proponents, *i.e.*, Chief Engineer, PIP and Project Administrator, PIP would prepare and submit bills every month to Polavaram Project Authority<sup>12</sup> (PPA). The PPA would scrutinise the bills and recommend to the Ministry of Jal Shakti<sup>13</sup> (MoJS), GoI for payment.

After declaration as National Project, the Cost Estimate of the project was further revised (2<sup>nd</sup> RCE) by GoAP to ₹55,548.87 crore (at 2017-18 PL) and was accepted (February 2019) by TAC, GoI. A Revised Cost Committee (RCC) was constituted (April 2019) by GoI under the Chairmanship of Joint Secretary & Financial Advisor, MoJS, DoWR, RD & GR<sup>14</sup> to examine the cost escalation of PIP. The RCC recommended (March 2020) the 2<sup>nd</sup> RCE for ₹47,725.74 crore at 2017-18 PL. The recommendation was yet (as of March 2023) to be accepted by GoI.

The main reasons for increase in cost estimate were time overrun, change in designs, delay due to frequent changes in contract agencies, increase in quantities and increase in amount of compensation as per new Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013.

<sup>10</sup> during 108<sup>th</sup> meeting of TAC held on 04.01.2011

<sup>11</sup> except power generation component being executed by GoAP through its own resources

<sup>12</sup> established by GoI in accordance with sub-section 4 of section 90 of Andhra Pradesh Re-organisation Act, 2014 *vide* Gazette Notification No. 129 dated 28.05.2014

<sup>13</sup> formerly Ministry of Water Resources and changed to MoJS since May 2019

<sup>14</sup> Department of Water Resources, River Development and Ganga Rejuvenation

The benefits<sup>15</sup> that would be accrued through PIP upon completion are enumerated in *Appendix 1.1*. The major components of PIP consisting of engineering works, Land Acquisition (LA) and Rehabilitation & Resettlement (R&R) are detailed in *Appendix 1.2*.

## 1.2 Organisational setup

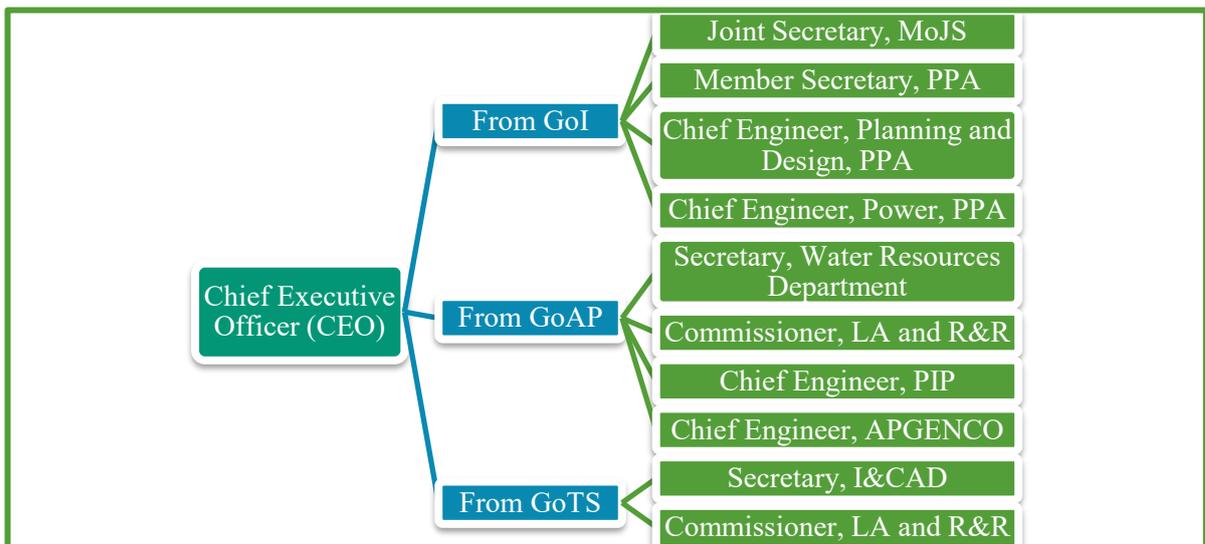
The organisational setup of various Departments/authorities involved in PIP are as detailed below.

### (a) Governing body of Polavaram Project Authority

The Governing Body of PPA shall obtain all requisite clearances including environmental and forest for acquisition of land, *etc.* It is responsible for supervising the functioning of PPA. The Governing Body is headed by a Chairman (Secretary to GoI, Ministry of Water Resources) along with eight members<sup>16</sup> and a Member Secretary.

The PPA shall execute the project, preferably through the concerned State Departments and/or any other expert agency and shall be charged with the regulation and development of PIP. The composition of PPA is depicted in *Chart 1.1*.

**Chart 1.1: Composition of Polavaram Project Authority**



Source: [ppa.gov.in](http://ppa.gov.in)

### (b) Water Resources Department

As per the present arrangement between GoI and GoAP, the Water Resources Department (WRD) of GoAP, headed by the Principal Secretary is responsible for execution of the project on behalf of PPA. The execution of engineering works is the responsibility of Chief Engineer (CE), PIP, construction of Powerhouse is overseen by CE, APGENCO<sup>17</sup> and Commissioner

<sup>15</sup> domestic water supply, inter-linking of rivers, industrial water supply, tourism, *etc.*

<sup>16</sup> Chief Secretary to GoAP; Chief Secretary to Government of Telangana State (GoTS); Secretary to GoI, Ministry of Environment and Forest; Secretary to GoI, Ministry of Finance (Department of Expenditure); Secretary to GoI, Ministry of Power and Secretary to GoI, Ministry of Tribal Welfare (or their nominees not below the rank of Joint Secretary); Chief Executive Officer, PPA and a representative from NITI Aayog (not below the rank of Joint Secretary)

<sup>17</sup> Andhra Pradesh Power Generation Corporation Limited

(R&R), Special Collector (LA) and Project Administrator (R&R) are responsible for implementation of LA and R&R.

### 1.3 Audit Objectives

The Performance Audit of Polavaram Irrigation Project was taken up with the following objectives to assess whether:

- **Headworks including Powerhouse**, were planned, designed and executed economically and effectively for required water storage and power generation capacity respectively.
- **Canals (LMC and RMC works)** were planned and executed economically and effectively with required last mile connectivities to cater to the industrial, irrigation and drinking water requirements as envisaged.
- **Land Acquisition** was done in a fair, transparent and efficient manner by balancing public interest and project requirements at large; and
- **Rehabilitation and Resettlement** envisaged for socio-economic benefits to the affected Project Displaced Families (PDFs), were effectively assessed and efficiently achieved.

### 1.4 Audit Criteria

The Audit findings were benchmarked against the criteria sourced from the following documents:

- Guidelines and circulars/instructions issued by the Ministry of Jal Shakti /Central Water Commission on irrigation projects;
- National Project guidelines issued by GoI;
- GoAP guidelines relating to Engineering Procurement Construction contracts and Government Orders/Circulars/Memos issued from time to time;
- Detailed Project Reports, feasibility studies and Internal Benchmark /estimates;
- Conditions stipulated by the Ministry of Environment, Forest and Climate Change and the Ministry of Tribal Affairs in the clearances given for PIP;
- Andhra Pradesh Financial Code, Andhra Pradesh Public Work Department Code and Andhra Pradesh Detailed Standard Specifications;
- Land Acquisition Act, 1894, GoAP Rehabilitation and Resettlement Policy 2005, Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013 and Andhra Pradesh RFCTLARR Rules, 2014;
- Terms and conditions of the works contracts entered into by the Department with the contract agencies; and
- Guide to Village Revenue Administration, issued by Andhra Pradesh Rural Development Corporation.

### 1.5 Audit Scope and Methodology

The Comptroller & Auditor General of India has reviewed the implementation of PIP as a part of the Jalayagnam Report (Report No. 2 of 2012) covering the period April 2006 to March 2010 and also in the year 2017 (Report No. 4 of 2018) covering the period April 2012 to March 2017 of Government of Andhra Pradesh. The Jalayagnam Report was partially discussed by the Public Accounts Committee (PAC), however, no recommendations were given. The Report No. 4 of 2018 was yet to be discussed by the PAC.

The present Performance Audit, carried out during June 2022 to June 2023, reviewed the implementation of the project from 2017-18 to 2022-23 duly covering the execution of project including Land Acquisition (LA) and Rehabilitation & Resettlement (R&R). This report also includes the updated position of the issues covered in the earlier Audit Reports, wherever such issues have contemporary relevance. It also covers the events that occurred during the prior period but not covered in the earlier Audit Report.

Field Audit covered the offices of the Principal Secretary, WRD, Chief Engineer (CE), PIP and sampled (based on SRSWOR<sup>18</sup> method) implementing units *viz.*, three out of five Superintending Engineers (SEs)<sup>19</sup>, eight out of the 19 Executive Engineers (EEs)<sup>20</sup>, three out of five Land Acquisition Offices<sup>21</sup>, three out of six R&R offices<sup>22</sup>, and two<sup>23</sup> out of three Quality Control Divisions involved in implementation of the project. Further, the offices of CE, APGENCO, Vijayawada, SE, APGENCO, Dowlaiswaram and SE, APTRANSCO<sup>24</sup>, Visakhapatnam were also covered during the audit.

The Audit methodology involved scrutiny of documents relating to decisions/ pronouncements, policies, circulars, budgetary allocations, *etc.*, at the Department level, and estimates, tendering, payments, quality control, joint inspections, *etc.*, at the Circles/Divisions of the project. Regarding LA and R&R, the audit methodology involved scrutiny of documents along with joint inspections. Discussions were held with the Departmental Authorities at various levels, questionnaires were issued, and photographic evidence was obtained wherever necessary.

The project involves displacement of 1.06 lakh Project Displaced Families (PDFs). However, a meagre progress (both physically and financially) was registered in R&R of PDFs, since the commencement of the project. The woes of PDFs also attracted widespread attention from the media. Hence, Audit took up beneficiary and amenities survey to assess the socio-economic benefits extended to PDFs. The R&R activities were divided into two Phases, *i.e.*, Phase-I upto Elevation Level (EL) of (+) 41.15 m and Phase-II above (+) 41.15 m. Under Phase-I, 20,946 PDFs were identified to be rehabilitated and under Phase-II, 85,060 PDFs. For the feasibility of survey, audit categorised PDFs under Phase-I into two categories:

- Category-I: PDFs rehabilitated to R&R colonies.
- Category-II: Habitations from where PDFs are yet to be rehabilitated.

The data obtained from the Department was sampled (SRSWOR method) duly covering the above categories for the survey.

An Entry Conference was held in May 2022 wherein Audit objectives, scope, methodology, criteria, *etc.*, were discussed with the Principal Secretary/WRD, GoAP. The Exit Conference

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<sup>18</sup> Simple Random Sampling Without Replacement

<sup>19</sup> SE, Polavaram Irrigation Project Headworks (PIPHW), Dowlaiswaram SE, PIPLMC, Tuni SE, PIPRMC, Eluru

<sup>20</sup> EE, PIPHW Division 1, Polavaram EE, PIPHW Division 3, Polavaram EE, PIPHW Division 5, Seethanagaram, EE, PIPHW Division 6, Purushothapatnam, EE, PIPLMC Division 1, Rajamahendravaram, EE, PIPLMC Division 3, Jaggampeta EE, PIPRMC Division 4, Eluru & EE, PIPRMC Division 5, Vijayawada

<sup>21</sup> SDC PIPLMC Unit-1, Rajamahendravaram, SDC, PIPRMC Unit, Kovvur & PO ITDA, KR Puram

<sup>22</sup> Sub-Collector, Rampachodavaram, RDO Jangareddigudem, PO, ITDA, KR Puram

<sup>23</sup> Quality Control (QC) Division Mylavaram at Polavaram & QC Division, Dowlaiswaram

<sup>24</sup> Andhra Pradesh Transmission Corporation

with the Government was held in November 2024 wherein, the major audit findings were discussed. The replies of the Government and responses given during the Exit Conference have been suitably incorporated in this Report at appropriate places. The recommendations made by Audit were discussed during the Exit Conference and were accepted (November 2024) by the Government.

## **1.6 Acknowledgement**

Audit acknowledges the co-operation extended by the Water Resources Department, Engineer-in-Chief, Chief Engineer, Superintending Engineer and officials of Engineering Divisions of Polavaram Irrigation Project, Polavaram Project Authority, Project Administrator, Special Collector (Land Acquisition), the Chief Engineer, APGENCO and their officials in the conduct of this audit.



# Chapter II

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## **Financial Management and Environmental Aspects**

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## Chapter II

### Financial Management and Environmental Aspects

There was drastic decrease in allocation of budget to the Project by Government of Andhra Pradesh (GoAP) during 2019-23, when compared to 2018-19. The percentage utilisation of budget provided ranged between 21 to 66 during 2017-23. This was mainly due to poor progress of works, indecisiveness in rectifying the damaged Diaphragm Wall and non-construction of Earth-Cum-Rock-Fill dam. The expenditure incurred was largely focused on works component, giving least priority to Land Acquisition and Rehabilitation and Resettlement activities.

As against the total expenditure of ₹16,089.79 crore incurred during 2014-23 by GoAP for the Project, an amount of ₹14,290 crore was reimbursed by Government of India (GoI). There was inordinate delay in reimbursement of amount by GoI to GoAP due to delayed/non-submission of requisite documents by GoAP to Polavaram Project Authority (PPA). The Revised Cost Estimate submitted for 2017-18 Price Level by GoAP remained unapproved by GoI, due to delay in completion of Socio-Economic Survey and preparation of cost estimates for distributary network by GoAP.

There were instances of non-compliance of environmental conditions stipulated by Ministry of Environment and Forest. The construction of protective embankments to the submergence villages in the neighbouring States of Chhattisgarh and Odisha due to be completed by 2014-15, was not yet commenced, as public hearing was not done by the concerned States. The GoAP unilaterally implemented two lift irrigation schemes without the approval of Central Water Commission, National Green Tribunal (NGT) and PPA which attracted environmental compensation to be paid to NGT. An additional expenditure was necessitated for scientific disposal of spoil earth as per the directions of NGT which was not done previously in line with agreement conditions.

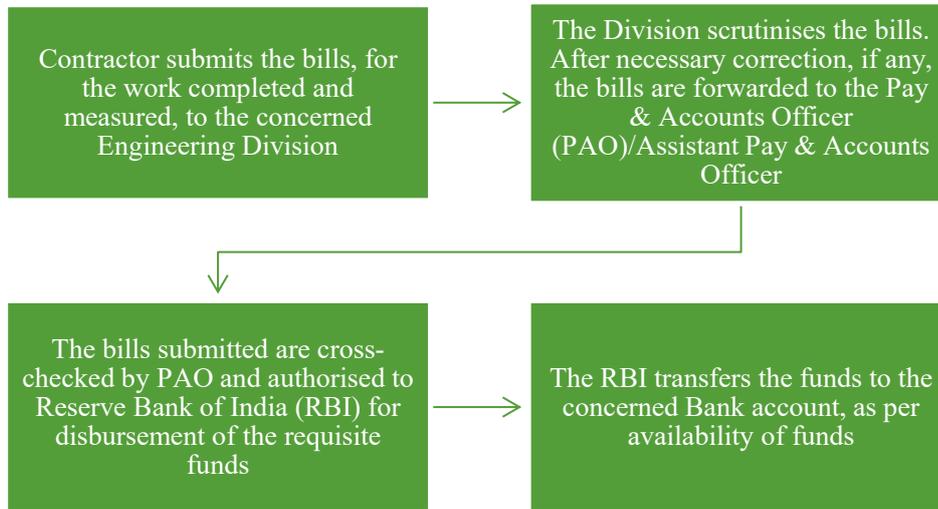
## 2.1 Financial Management

### 2.1.1 Budget Allotment and Expenditure

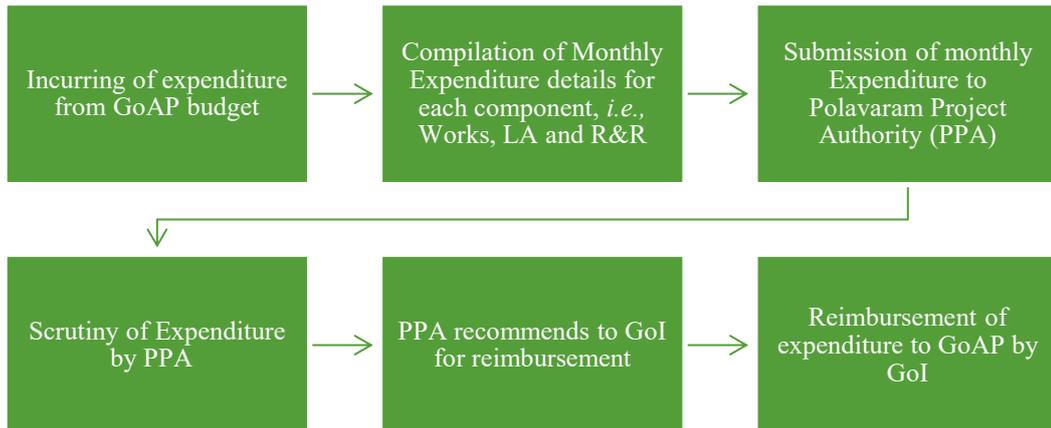
As per the arrangement between Government of India (GoI) and Government of Andhra Pradesh (GoAP) for execution of Polavaram Irrigation Project (PIP), initially the expenditure is incurred by GoAP through its budgetary resources. Subsequently, the expenditure is being reimbursed by Ministry of Jal Shakti (MoJS), GoI, as per the recommendations of Polavaram Project Authority (PPA). The process of 'Settlement of bills to the contract agencies' by

GoAP and ‘Reimbursement of expenditure incurred by GoAP from GoI’ are given in *Flow Chart 1* and *Flow Chart 2* respectively.

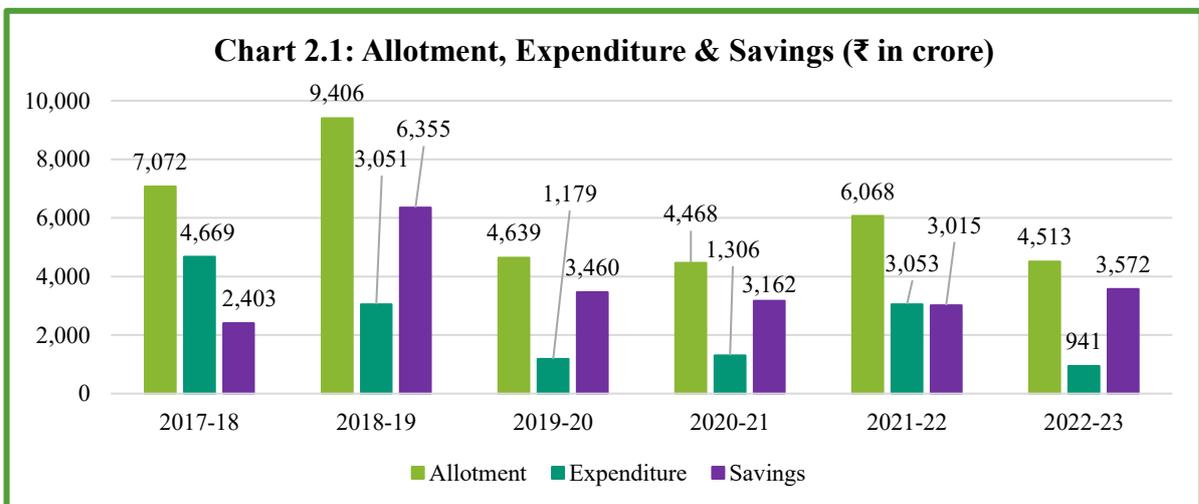
**Flow Chart 1: Cycle of settlement of bills to contract agencies**



**Flow Chart 2: Cycle of reimbursement of funds from Government of India**



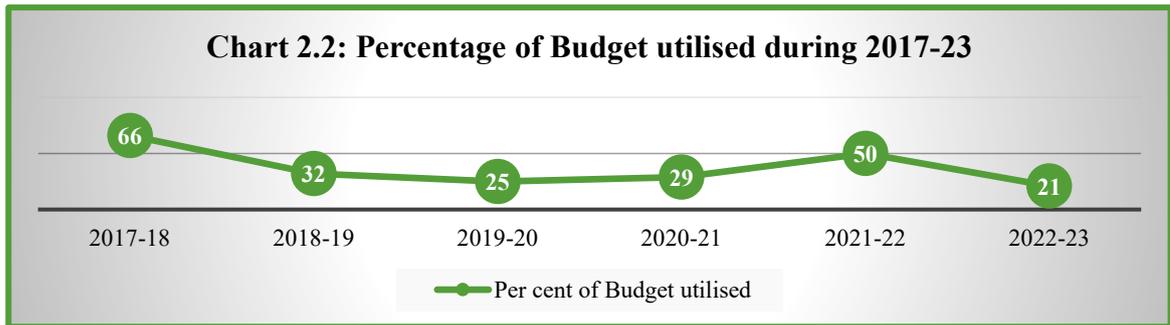
The budget allotted and expenditure incurred by GoAP on the Project for the period 2017-18 to 2022-23, as reported by the CE, PIP, was as depicted in *Chart 2.1*.



Source: Finance & Appropriation Accounts of GoAP and records of Water Resources Department

It could be seen from the above that:

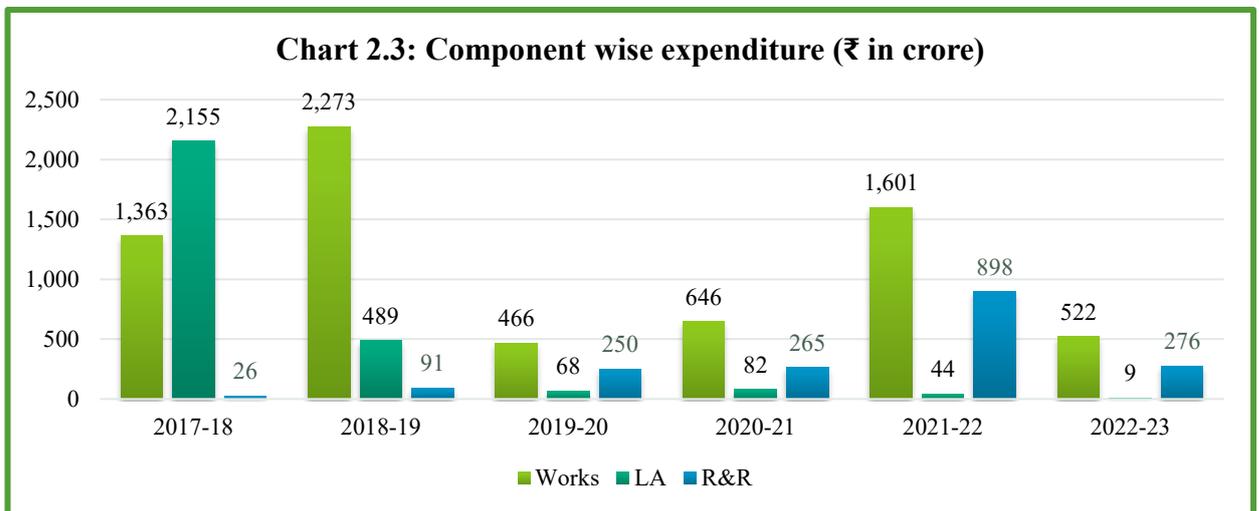
- The budget allotment and the expenditure incurred decreased (except during the year 2021-22) drastically from the year 2019-20 onwards when compared to 2018-19. The decrease in budget allotment was approximately 50 per cent during 2019-21 and 2022-23, due to poor progress of work, indecisiveness in rectifying the damaged Diaphragm Wall and non-construction of Earth-Cum-Rock-Fill (ECRF) dam.
- The budget allocated was not utilised in full during any of the years for the period 2017-23. The percentage of utilisation of budget allocated during the period 2017-23 ranged between 21 to 66 per cent, as depicted in **Chart 2.2**.



Source: Compiled based on the information furnished by the Department

Thus, despite availability of budget, the funds could not be utilised to the full extent, thereby the progress of the project could not reach the desired targets.

- The component-wise expenditure incurred by GoAP on PIP during 2017-23 was as depicted in **Chart 2.3**.



Source: Compiled based on the information furnished by the Department

Note: The year-wise expenditure and component-wise expenditure figures would vary as the year-wise expenditure involves expenditure on other items<sup>25</sup> also.

From the above it can be inferred that:

- The expenditure was largely focused on works component, giving least priority to Land Acquisition (LA) and Rehabilitation and Resettlement (R&R) activities. Even if the

<sup>25</sup> salaries, contingent expenses, vehicle hire charges, office establishment, etc.

Headworks and canals are completed, the reservoir cannot be filled unless LA for R&R activity and rehabilitation of PDFs from the submergence area *i.e.*, upto contour (+) 41.15m is completed.

- Despite there being need (as of March 2023) for acquisition of land measuring 54,248 acres (*refer Para 2.2.2*) for R&R activity and submergence area, there was decreasing trend of expenditure on LA component during the audit period.
- Though the expenditure on R&R component increased year by year from 2017-18 (except 2021-22), the total expenditure of ₹1,806 crore (during 2017-18 to 2022-23) was very meagre when compared to total R&R expenditure (as per 2<sup>nd</sup> RCE) expected (₹24,120 crore) to be incurred (*refer Chart 2.4*).

The Department replied (May 2023) that though budget was allotted, it could not be spent due to unforeseen hurdles *viz.*, Land Acquisition issues, court cases, contractual issues, natural calamities, Covid-19 pandemic, delay in approval of designs by Central Water Commission, *etc.*

The Government accepted (November 2024) that there was fall in allocation and expenditure and stated that a detailed reply would be submitted.

- A comparison of expenditure incurred on the project as reported by the CE, PIP with the expenditure booked as per the approved Finance Accounts and that reported by PPA is given in *Table 2.1*.

**Table 2.1: Comparison of expenditure incurred reported by CE, PIP, as per Finance Accounts and PPA**

**(₹ in crore)**

Year	Expenditure reported by Chief Engineer, PIP	Expenditure as booked under Finance Accounts	Difference (+/-)	Expenditure reported by PPA
2017-18	4,669.65	4,668.86	(+)0.79	3,669.02
2018-19	3,051.19	3,061.68	(-)10.49	2,962.60
2019-20	1,178.60	98.39	(+)1,080.21	875.29
2020-21	1,305.98	1,302.03	(+)3.95	1,089.28
2021-22	3,053.05	2,645.82	(+)407.23	2,635.29
2022-23	941.19	930.42	(+)10.77	905.81
<b>Total</b>	<b>14,199.66</b>	<b>12,707.20</b>	<b>1,492.46</b>	<b>12,137.29</b>

Source: Compiled based on the information furnished by the Department and from the Finance Accounts

It could be seen that:

- The expenditure reported by CE, PIP was more than that booked in Finance Accounts specifically during 2019-20 by ₹1,080.21 crore. The reasons for excess reporting was not forthcoming from the records produced to audit.
- The overall expenditure incurred on the project between 2017-23 was over-reported by ₹1,492.46 crore by the CE, PIP.
- There was a variation in expenditure of ₹569.91 crore on the project as booked under Finance Accounts when compared to PPA account during 2017-23.

Thus, there was a mismatch between the expenditure figures reported by CE, PIP, PPA and expenditure booked under Finance Accounts. This mismatch needs reconciliation.

**Recommendation 2.1: The State Government should ensure adequate budgetary support and enforce upon the Department for optimum utilisation of allocated funds for timely completion of the project.**

### 2.1.2 Pendency of bills

Scrutiny of records of budget and expenditure during the period 2020-21 to 2022-23 revealed that though bills pertaining to works, LA and R&R were pending for payment, the allotted budget was not utilised. As of March 2023, bills worth ₹2,097 crore were pending for payment for the period 2020-23 despite availability of budget which resulted in savings as given in **Table 2.2**.

**Table 2.2: Amounts pending for payment despite availability of budget**

(₹ in crore)

Year	Savings	Amount pending for payment			Total
		Works	Rehabilitation & Resettlement	Land Acquisition	
2020-21	3,163	422	0	0	422
2021-22	3,015	209	0	0	209
2022-23	3,572	1,207	65	194	1,466
<b>Total</b>	<b>9,750</b>	<b>1,838</b>	<b>65</b>	<b>194</b>	<b>2,097</b>

Source: Compiled based on the information furnished by the Department

Note: There were no pending bills during the period 2017-2020

Audit further noticed that LA bills worth of ₹193.80 crore were pending at Government level for release and bills to an extent of ₹83.17 crore are to be approved for payment to beneficiaries to the end of March 2023 as detailed in **Table 2.3**.

**Table 2.3: Unit wise pending bills status**

(₹ in crore)

Sl. No.	Name of the unit	Bills raised and payment pending	Land Awards passed and bills to be raised
1.	Special Deputy Collector (SDC) Land Acquisition (LA), PIP, LMC-1, Rajamahendravaram	75.91	6.32
2.	SDC(LA), PIP, Kunavaram	14.74	0.54
3.	SDC(LA), Chinturu	11.44	--
4.	SDC(LA), PIP, Yetapaka	0.93	3.27
5.	SDC(LA), PIP, RMC UNIT-I, Kovvur	20.03	7.03
6.	SDC(LA), PIP, RMC UNIT-II, Eluru	70.75	66.01
<b>Total</b>		<b>193.80</b>	<b>83.17</b>

Source: Compiled based on the information furnished by the Department

Non-payment of bills may curtail the fund flow to the contract agencies and would have an adverse effect on the progress of works component. Non-payment of LA and R&R benefits to PDFs would deprive/delay the rights of PDFs as per RFCTLARR Act, 2013.

The Department replied (December 2022) that the bills were uploaded/processed in time as soon as the budget was released. However, the same were not paid due to release of funds at

the fag end of the financial years. Regarding LA and R&R, it was replied that the bills would be submitted again in due course for payment.

The reply is not acceptable. In CFMS<sup>26</sup>, once the bills are uploaded, the payments are made based on the Budget allocation and authorisation by the Finance Department.

While accepting that the funds could not be released to clear the bills, despite budget provision, the Government stated (November 2024) that its priority of welfare schemes overrode the infrastructure projects. It was also replied that though the bills were submitted to PPA every month, GoI delayed reimbursement of the bills and denied certain expenditure on the pretext of component wise ceiling, non-availability of estimate provisions, etc.

The reply is not acceptable. Despite availability of budget provision, fund flow to the contract agencies were curtailed which ultimately affected the progress/completion of works and deprived the PDFs of their legitimate rights.

### 2.1.3 Central Assistance to the Project

After declaration of PIP as National Project, 100 per cent funding of the remaining cost of irrigation component (works, LA and R&R) from April 2014 was to be borne by GoI. Accordingly, GoI had constituted (2014) Polavaram Project Authority (PPA), a special purpose vehicle to plan, execute and monitor the entire project. The expenditure incurred by GoAP for execution of PIP shall be reimbursed by GoI.

As of March 2014, out of the total estimated cost of ₹16,010.45 crore, an expenditure of ₹4,730.71 crore was incurred. The total expenditure incurred from April 2014 to March 2023 was ₹16,089.79 crore. As per records of CE, PIP, out of this, an amount of ₹14,290 crore was reimbursed by GoI to GoAP. The year wise reimbursement of expenditure incurred by GoAP as reported by CE, PIP, as per data available on PPA website and receipts as booked in the Finance Accounts for the period April 2014 to March 2023 was as shown in **Table 2.4**.

**Table 2.4: Reimbursement by GoI during 2014-23**

(₹ in crore)				
Year	Expenditure reported by CE, PIP	Reimbursement reported by CE PIP	Reimbursement as booked under Finance Accounts	Reimbursement as per PPA Website
2014-15	439.47	245.00	0.00	250.00
2015-16	1,867.94	590.00	635.00	600.00
2016-17	1,645.07	2,515.00	2,281.54	2,514.16
2017-18	3,669.03	1,993.00	2,425.72	2,000.00
2018-19	2,962.61	1,385.00	1,385.00	1,400.00
2019-20	875.30	1,780.00	1,780.00	1,850.00
2020-21	1,089.27	2,234.00	2,234.20	2,234.20
2021-22	2,635.30	1,877.00	1,897.70	1,898.80
2022-23	905.80	1,671.00	1,671.23	1,671.24
<b>Total</b>	<b>16,089.79</b>	<b>14,290.00</b>	<b>14,310.39</b>	<b>14,418.40</b>

Source: Information furnished by the Department, PPA website and Finance Accounts of GoAP

<sup>26</sup> Comprehensive Financial Management System is an online software system developed by State Government to manage their finances more effectively and efficiently. The system typically include features such as budgeting, accounting, reporting, and analytics

As seen from the above, there is a variation of ₹20.39 crore between the reported reimbursement and the receipt booked under Finance Accounts. Further, there is a variation of ₹128.40 crore between the reported reimbursement and that was available on the PPA website. As per the Annual Report of PPA for the year 2022-23, an amount of ₹129.00 crore was the expenditure incurred by PPA towards establishment charges.

The component-wise expenditure incurred by GoAP and reimbursed by GoI for the period 2017-18 to 2022-23 was as shown in **Table 2.5**.

**Table 2.5: Component-wise expenditure and reimbursement during 2017-23**

(₹ in crore)				
Sl. No.	Name of the Component	Expenditure incurred by GoAP	Amount reimbursed by GoI	Amount to be reimbursed by GoI
1.	Headworks	5,149.02	4,825.75	323.27
2.	Canals	1,722.26	1,204.45	517.81
3.	Land Acquisition	2,847.80	2,797.89	49.91
4.	Rehabilitation & Resettlement	1,806.41	1,795.56	10.85
5.	Administrative Charges	611.81	484.56	127.25
<b>Total</b>		<b>12,137.30</b>	<b>11,108.21</b>	<b>1,029.09</b>

Source: Information furnished by the Department

### 2.1.3.1 Delay in submission of requisite documents to PPA

Audit noticed<sup>27</sup> that there was inordinate delay ranging between 10 to 449 days for scrutiny and reimbursement of bills submitted by GoAP to PPA for approval by MoJS.

The PPA replied (July 2022) that due to non-receipt of all the requisite documents<sup>28</sup>, from GoAP, the bills could not be forwarded to MoJS and hence there was no delay on the part of PPA in recommending and forwarding the bills to MoJS. It was also stated that the funds for PIP are being provided through Extra Budgetary Resources (EBR), *i.e.* through NABARD<sup>29</sup>, which requires two to three weeks for arranging the requisite funds.

Thus, it is evident from the reply of PPA that the delay in processing of the bills by PPA was due to non-submission of requisite documents by GoAP and also due to lack of clarity in furnishing details regarding component/ month/ bill wise expenditure incurred as mentioned by PPA.

The Government replied (November 2024) that the billing process and the reimbursement procedure has been now streamlined after nomination of Nodal Officers (December 2020) as suggested by the PPA and the requisite documents as desired by PPA are being submitted in time.

The reply is not acceptable. Though Nodal Officers were appointed (December 2020), there were delays ranging from 10 to 70 days between submission of bills by GoAP to PPA and subsequent recommendation by PPA to MoJS.

<sup>27</sup> as per the information furnished by Chief Engineer, PIP, Dowlaiswaram

<sup>28</sup> audit certificates for the expenditure incurred, month-wise and bill wise expenditure details of LA, R&R, *etc.*

<sup>29</sup> National Bank for Agriculture and Rural Development

The timely submission of all requisite documents along with the bills to PPA during the audit period would have reduced the time taken between submission of bills by the GoAP to PPA and recommendation of reimbursement by PPA to GoI.

### 2.1.3.2 Delay in Investment Clearance

Investment clearance was accorded (2009) by the Planning Commission for the original cost estimate (2005-06 PL) of ₹10,151.05 crore for the project, prepared by GoAP. Subsequently, the project cost was revised (1<sup>st</sup> RCE) with 2010-11 PL to ₹16,010.45 crore by GoAP for which investment clearance was accorded (February 2017) by GoI.

Subsequently, the project cost was again revised (2<sup>nd</sup> Revised Cost Estimate) to ₹55,548.87 crore (at 2017-18 PL) and the same was considered by MoJS, GoI in 2019 and referred to the RCC<sup>30</sup> to examine the reasons for cost escalation. The proposed increase of ₹39,538.42 crore in project cost was due to an increase in enhanced compensation under RFCTLARR Act, 2013 and inadequate provision for land<sup>31</sup> requirement in earlier estimates. The RCC pegged (March 2020) the revised cost to ₹47,725.74 crore against the proposed amount and highlighted shortcomings duly reviewing and restricting the cost component of LA<sup>32</sup>, R&R<sup>33</sup> and canals<sup>34</sup>. As of March 2023, the 2<sup>nd</sup> RCE was yet to be approved by GoI.

The GoAP submitted (June 2021) clarifications on the shortcomings pointed out in 2<sup>nd</sup> RCE by PPA. However, only partial compliance was reported (June and November 2021) and non-compliance to the shortcomings includes the following:

- Distributary network/command area development was to be executed at the same pace as other components of project. However, the Detailed Project Report for the distributary network is not yet approved by PPA/CWC, which is a pre-requisite for clearing the investment proposal.
- The details of R&R for the firmed-up PDFs is mandatory for clearing investment proposals. The firming up of PDFs would be known only after completion of Socio-Economic Survey (SES) above EL (+) 41.15m. As the SES was not completed, the information in this regard was not furnished to PPA by WRD, GoAP.

From the above, it is evident that delay in completion of SES and approval of DPR for distributary network by GoAP resulted in delay in according investment clearance by GoI.

The Government replied (June 2024) that the SES can be finalised only after approval of draft R&R scheme which is linked with the funding commitment by GoI. Further, the completion of distributary system to the canal network is a continuous process involving huge magnitude of work.

The reply is not acceptable, as the Department reported that SES for above (+) 41.15 m contour was completed in 2022, however, the R&R scheme is yet to be finalised. Further, the

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<sup>30</sup> under the chairmanship of JS & FA, MoWR, RD&GR

<sup>31</sup> for work, submergence and R&R activities

<sup>32</sup> (a) land requirement as approved in 1<sup>st</sup> RCE was retained (b) reduction of land compensation rate per acre from ₹11.52 lakh to ₹10.91 lakh

<sup>33</sup> (a) compensation per house reduced from ₹3.15 lakh to ₹2.85 lakh (b) reduction of infrastructure/ amenities expenditure per PDF from ₹7.00 lakh to ₹6.52 lakh

<sup>34</sup> cost of these work items was frozen at 2013-14 price level, as the increase in the cost was mainly due to revision of discharge capacities by GoAP

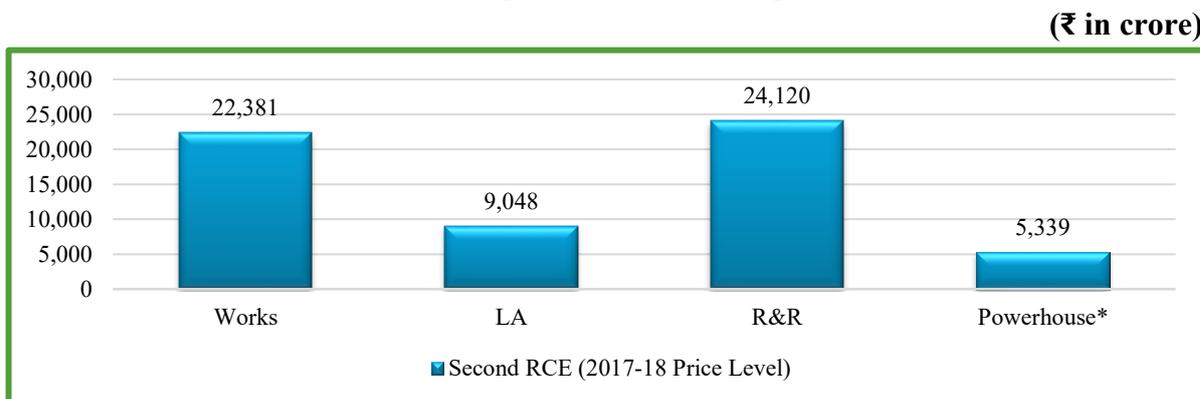
Survey and Levelling operations for distributary networks was taken up only in November/December 2019, *i.e.*, a delay of 14 years from commencement of the project works. Had the preparation of DPR for distributary network been taken up once the canal alignment for both LMC and RMC was finalised, the delay in investment clearance would have been avoided.

**Recommendation 2.2:** *The State Government should expedite the Socio-Economic Survey process and obtain approval of DPR by the CWC for the distributary network, to facilitate the approval of the RCE by GoI for timely completion of the project.*

## 2.2 Status of the Project

The components of PIP include civil works<sup>35</sup>, LA and R&R. The component-wise original cost estimate was ₹8,258 crore for works component, ₹1,149 crore for LA, ₹745 crore for R&R as per SSR 2005-06 and ₹5,339 crore for Powerhouse. The component-wise cost estimates were increased and as per 2<sup>nd</sup> RCE (₹55,548.87 crore at 2017-18 PL) the component wise cost estimate was as depicted in **Chart 2.4**.

**Chart 2.4: Component-wise cost as per 2<sup>nd</sup> RCE**



Source: 2<sup>nd</sup> Revised Cost Estimate report and records of the Department

\*Revised cost (2016-17) as submitted to Central Electricity Authority and does not form part of RCE

The cost of each component had increased manifold<sup>36</sup> due to frequent change in contractors and contract system from Engineering Procurement Construction (EPC) to Lumpsum / Reverse Tendering<sup>37</sup>, delay in awarding of works (*discussed in detail in Chapter III*), change in designs of the work components, increase in discharge capacity of the canals, increase in prices, increase in cost of LA and R&R due to adoption of RFCTLARR Act, 2013, *etc.*

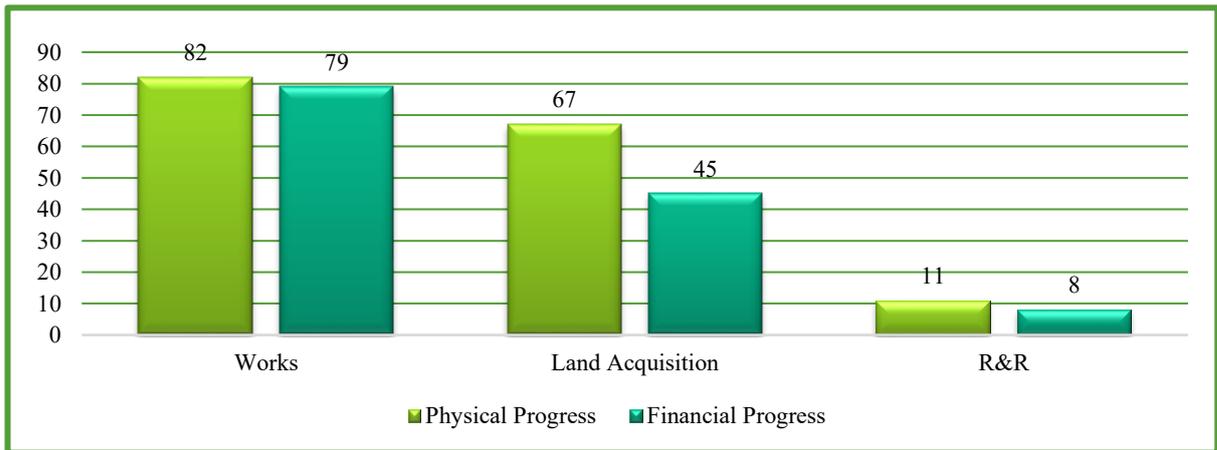
Despite the increase in the cost of the project, there was lack of substantial progress, and the project as a whole remained incomplete as of March 2023. The percentage of physical and financial progress of the project as of March 2023 was as shown in **Chart 2.5**.

<sup>35</sup> Main Dam along with canals and distributary network

<sup>36</sup> works by 171 *per cent*, Land Acquisition by 687 *per cent* and R&R by 3,138 *per cent*

<sup>37</sup> Reverse tendering is a procurement method where the buyer invites the targeted bidders (participated in the normal bidding process) to offer / quote a price (lower than the lowest tenderer cost) at which they would complete the work

**Chart 2.5: Status of the Project (in per cent)**



Source: Records of the Department

Further, out of ₹47,725.74 crore (as recommended by RCC) to be spent towards PIP, an amount of ₹16,089.79 crore was spent as of March 2023 during 2014-23. The status of each component of the project is discussed in the subsequent paragraphs.

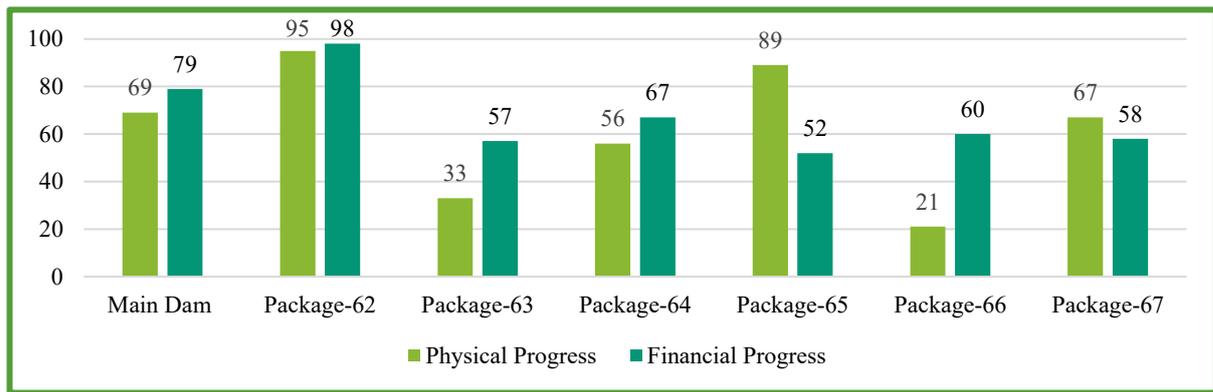
During the Exit Conference, the Government replied (November 2024) that now GoI has decided to fund the project in two Phases and the Phase-I is targeted to be completed by March 2026, with the provision for one year extension.

### 2.2.1 Status of Civil Works

The works were divided into 22 packages and awarded initially under EPC system. Out of the total agreement value of ₹11,794.24 crore for the works component (excluding Powerhouse component), an expenditure of ₹9,345.34 crore was incurred (as of March 2023), since inception of the project, registering a financial progress of 79.24 per cent. The agreement value of each package, supplementary agreements involved, contractors engaged, type of contract are detailed in **Appendix 2.1 (A) (Headworks) and Appendix 2.1 (B) (Canals)**. The status of works as of March 2023 was as discussed below:

#### (a) Headworks

The Headworks or Main Dam including connectivities (both left & right) were divided into seven packages and initially awarded (March 2005 and August 2006) on EPC mode. As of March 2023, out of works amounting to ₹7,422.69 crore awarded, an expenditure of ₹5,757.48 crore was incurred. Even after a lapse of 17 years, the Headworks were not yet completed. As of March 2023, package-wise physical and financial progress of works was as depicted in **Chart 2.6**.

**Chart 2.6: Progress of Headworks (in per cent)**

Source: Records of the Department

Audit noticed that the delay in execution of works was due to frequent change of contract agencies, changes in designs and non-completion of R&R. In most of the packages, non-completion of work was attributable to slow progress of work, except in the following instances (*there is a detailed discussion on these issues in Chapter III*):

- The Diaphragm Wall laid at a cost of ₹399.77 crore under the proposed Earth-Cum-Rock Fill dam (ECRF dam - Main Dam Package) was damaged due to non-adherence to the planned construction schedule as per DPR and also due to non-existence of a contract agency to mitigate the flood situation. As a result, construction of main ECRF dam could not be commenced. The rectification work of damaged portion of Diaphragm Wall was under progress (March 2023).
- As far as Right connectivities (Package-64) is concerned, the tunnel through which water passes to RMC collapsed due to taking up the work in weak rock zone (*discussed in detail in Chapter III*). Hence, the package remained incomplete even after incurring expenditure of ₹70.89 crore, as rectification of the collapsed tunnel was yet to be taken up by the Department.
- Though the major portion of work of left connectivities (Package-67) was completed (except for the navigation channel and related works), the work was pre-closed (July 2020) by the Government, due to non-finalisation of designs<sup>38</sup> by Inland Waterways Authority of India (IWAI), after incurring an expenditure of ₹74.77 crore.

The Department replied (August 2022) that due to Land Acquisition issues there was delay in handing over of land to the contract agencies. The issues were, however, resolved only in the year 2015 by the Revenue Authorities. This resulted in revision of rates with SSR 2015-16 and the same was approved by the State Government. Further, as the contract agencies were not coping with the progress of the work, balance works were deleted and entrusted to another contract agency under the LS system. It was further replied that the decision to change the contract agencies was as per the orders of the competent authorities and as per site conditions.

The reply is not acceptable. Despite the change of contract agencies there was no substantial progress in works and in the above instances the works were stalled. Further, the Department

<sup>38</sup> location at which the Navigation channel/ tunnel is to be incorporated

had failed to enforce the agreement conditions on the agencies who have not adhered to the timelines of the work.

Reply from the Government is awaited (November 2024).

### **(b) Canal system**

The canal works of RMC and LMC were divided into 15 packages (RMC: seven *packages* and LMC: eight *packages*). The canal works were taken up in the year 2005 with a target to complete within 24 months *i.e.*, by 2007. Even after a lapse of 17 years, LMC and RMC<sup>39</sup> works were not yet completed.

In respect of LMC, out of total agreement value of ₹2,317.90 crore, an expenditure of ₹1,683.17 crore was incurred till March 2023. The overall physical and financial progress of LMC works was 76.05 and 72.62 *per cent* respectively. Slow progress of work in LMC was attributed to non-completion of LA process.

In respect of RMC, out of total agreement value of ₹2,053.65 crore, an expenditure of ₹1,904.69 crore was incurred till March 2023. The overall physical and financial progress of RMC works was 96.14 and 92.75 *per cent* respectively. However, the distributary network and minors (field channels) were yet to be taken up, as the designs and the cost estimates were not yet finalised.

### **(c) Polavaram Hydro Electric Project**

Techno-Economic Concurrence (TEC) was received<sup>40</sup> (February 2012) by APGENCO for an amount of ₹3,013.68 crore and the target for commissioning the power project was March 2018. The cost was revised from ₹3,013.68 crore to ₹5,338.95 crore (2016-17). Total expenditure incurred on the project so far was ₹884.89 crore. The physical and financial progress was 12 and 17 *per cent* respectively. The revised target date for commissioning the project is January 2026.

#### **2.2.2 Status of Land Acquisition**

As per Detailed Project Report submitted (2010-11 PL) to CWC, the land to be acquired for the project was initially assessed as 1,35,043 acres<sup>41</sup>. However, during the 2<sup>nd</sup> RCE (2017-18 PL), it was increased to 1,79,770 acres<sup>42</sup>. As per 2<sup>nd</sup> RCC report, the estimated cost of LA was increased from ₹1,153.78 crore at 2005-06 PL to ₹13,077.15 crore at 2017-18 PL.

The main reason for increase in cost of Land Acquisition was due to introduction of RFCTLARR Act, 2013, land requirement of 6,158 acres for distributary network which was not included in 1<sup>st</sup> RCE and due to non-consideration of extent of encroached government land and assigned land for which 'Land-to-land' is to be provided as per RFCTLARR Act, 2013. Out of the total required land of 1,79,770 acres, requisitions were filed with Land Acquisition officers (LAOs) for an extent of 1,67,765 acres<sup>43</sup> and 1,13,119 acres was acquired at a cost of

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<sup>39</sup> in RMC all the works were completed except for canal lining of 12.95 Km and 41 structures

<sup>40</sup> from Central Electricity Authority

<sup>41</sup> Patta Land: 95,971.54 acres; Forest Land: 9,219.60 acres and Poramboke Land: 29,852 acres

<sup>42</sup> Patta Land (includes encroached government land, D-Patta and Patta): 1,55,464.85 acres; Forest Land: 8,727.27 acres and Poramboke (Government) Land: 15,578 acres

<sup>43</sup> the difference of 388.77 acres (54,646.06 acres – 54,257.29 acres) need to be reconciled by LA Authorities with Engineering Department

₹5,457 crore. The balance extent of land of 54,248.45 acres needs to be acquired at a cost of ₹6,639.55 crore. Further, delay in acquisition of land would increase the financial burden on the exchequer (*a detailed discussion on Land Acquisition is featured in Chapter V*).

### **2.2.3 Status of Rehabilitation & Resettlement**

Rehabilitation & Resettlement (R&R) cost includes various items *viz.*, construction of houses for PDFs, compensation for submerged houses, R&R benefits and development of infrastructure facilities in R&R colonies. As per the original estimate (2005-06), 44,574 PDFs were to be re-habilitated at an estimated cost of ₹744.60 crore which was increased to ₹20,091.09 crore (2017-18 RCE) for 1,06,006 PDFs (56,495 are tribal families). However, as of March 2023, only a total of 11,677 PDFs (11 *per cent* of the total PDFs) were rehabilitated.

The increase in PDFs was mainly due to the identification of additional<sup>44</sup> habitations below the Full Reservoir Level. Various factors *viz.*, increase in the number of PDFs, delayed Land Acquisition for R&R colonies and land-to-land transfer for agricultural land acquired, delayed payment of R&R cash compensation led to an increase in project cost (*a detailed discussion on R&R is made in Chapter VI*).

## **2.3 Environmental Aspects**

The implementation of any irrigation project helps in upliftment of general prosperity in the region, however, there are bound to be some adverse environmental and ecological effects which should be mitigated through suitable remedial measures. Proper Environmental Management Plan needs to be evolved to reduce the impact on the environment and anticipate the possible adverse impacts. This will help to incorporate adequate control measures on the adverse effects from the project planning phase to various other stages of development, such as implementation and management to accrue optimum benefits from the project.

### **2.3.1 Non-compliance to conditions stipulated by Ministry of Environment & Forest**

The Ministry of Environment and Forests (MoEF), Government of India while according approval for diversion of 3,731.07 hectares of forest land for execution of PIP had stipulated (July 2010) 32 conditions<sup>45</sup> for compliance. Out of the 32 conditions, the following two conditions were verified in Audit.

- a) The user agency shall demarcate on ground the forest area diverted at the project cost using four feet high Reinforced Cement Concrete pillars, with each pillar inscribed with the serial number, forward and backward bearing and with distance between two adjacent pillars.
- b) Planting of native tree species shall be undertaken on vacant land along the reservoirs and canals.

Audit noticed that based on SSR 2010-11, an amount of ₹45.30 lakh was technically sanctioned for construction of Reinforced Cement Concrete pillars under PIP Headworks. However, the work was not taken up. Subsequently, a revised estimate based on SSR 2021-22 was prepared

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<sup>44</sup> 268 habitations in DPR 2005 increased to 373 habitations as of March 2023

<sup>45</sup> implementation of Catchment Area Treatment Plan, to identify non-forest land for compensatory afforestation, demarcation of forest area with Reinforced Cement Concrete pillars, *etc.*

(April 2021) for ₹85.20 lakh<sup>46</sup> for “Supply and fixing of pre-cast Reinforced Cement Concrete pillars to demarcate forest boundaries”.

In respect of LMC works, though an estimate (₹4.93 lakh) was prepared for 168 Reinforced Cement Concrete pillars, the work was yet to be taken up by the Department. In RMC works costing ₹5.90 lakh, out of 104 Reinforced Cement Concrete pillars, the Department had erected only 29 Reinforced Cement Concrete pillars so far and the remaining 75 Reinforced Cement Concrete pillars were yet to be taken up. However, there was nothing on record to show that demarcation of forest land was done at Headworks area. Further, the Department had planted 19,981 plants (LMC: 4,388 and RMC:15,593) out of the targeted 73,788 plants (LMC: 39,397 and RMC: 34,391).

Non-compliance with conditions stipulated by MoEF may result in levy of penalty or stoppage of works which would lead to delay in completion of canal works.

The Government replied (June 2024) that due importance would be given to the compliance conditions stipulated by MoEF for demarcation of forest land used in the project and for plantation of native trees.

As most of the canal excavation is completed, except for a few stretches in LMC, the Department should have given due importance to the stipulated guidelines of MoEF and expedited demarcation of forest land and plantation with native species.

### **2.3.2 Construction of protective embankments in neighbouring States**

On completion of PIP, the backwaters of the reservoir would spread into parts of Telangana, Chhattisgarh and Odisha States also. Due to the backwaters of the project, 12 villages would be submerged<sup>47</sup>, displacing 3,337 Project Affected Families (PAFs) in the States of Chhattisgarh and Odisha, if no mitigative measures were undertaken.

The States of Andhra Pradesh, Chhattisgarh (erstwhile part of Madhya Pradesh State) and Odisha entered (April 1980) into an agreement for resolving the submergence aspects of PIP. As per provisions of agreement, to avoid submergence of land and to protect the interests of tribal people, GoAP proposed (1978<sup>48</sup>/1980<sup>49</sup>) protective embankments with adequate drainage sluices for a length of 30 Km along Sileru and Sabari Rivers in Odisha and for a length of 29.12 Km along the Sabari River in Chhattisgarh at a cost of ₹278.40 crore in the DPR 2005-06 (₹710.99 crore at 2017-18 PL).

Aggrieved by the decision of MoEF to accord stage-I environmental clearance to the PIP, the Government of Odisha filed a ‘Original Suit’ (OS No. 4 of 2007) in the Supreme Court. An Expert Appraisal Committee (EAC) of MoEF directed (March 2009) the project proponent to initiate action for conduct of public hearing in the States of Odisha and Chhattisgarh for embankment proposal and report back to the Committee. The MoEF stated<sup>50</sup> (February 2011) that the changes proposed (November 2010) by the Project Proponent while seeking (in 2005)

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<sup>46</sup> for demarcation of Forest land used for Headworks: ₹78.86 lakh, LMC: ₹4.93 lakh, RMC: ₹5.90 lakh

<sup>47</sup> Chhattisgarh: four villages displacing 2,335 PAFs containing 11,766 persons; Odisha: eight villages displacing 1,002 PAFs containing 6,316 persons

<sup>48</sup> tripartite agreement between the erstwhile States of Andhra Pradesh & Madhya Pradesh and Odisha

<sup>49</sup> proposed by GoAP as indicated vide Clause VI of GWDT award

<sup>50</sup> letter No. J-12011/8/09-IA-1 dated 08.02.2011

Environmental Clearance shall be reviewed by EAC for River Valley and Hydro Power Projects. Until the matter was reviewed upon, MoEF ordered (February 2011) to ‘stop work’. Further, the Governments of Chattisgarh (OS No. 3 of 2011) and Telangana (OS No. 1 of 2019) have also filed cases against the environmental aspects and submergence aspects of the project with the Hon’ble Supreme Court.

The Principal Secretary (Projects), GoAP, replied<sup>51</sup> (March 2011) to MoEF that there was no change in the scope of PIP for which Environmental Clearance was accorded (2005) by MoEF. It was further stated that GoAP had approached appropriate authorities in Odisha and Chhattisgarh for conduct of public hearings for construction of protective embankments on Sabari and Sileru Rivers to prevent submergence in the respective States. However, Pollution Control Boards of both the States have not conducted the public hearings.

The stop work order was kept in abeyance<sup>52</sup> (February 2013) by MoEF, initially for a period of six months and was continued (order dated February 2022) till July 2023. The court cases filed by the three affected States are still pending with the Hon’ble Supreme Court.

Audit noticed that as per the construction programme given in the latest DPR (2017), the construction of protective embankment should be commenced from 8<sup>th</sup> year (*i.e.*, 2011-12 as the works commenced in 2004) and to be completed by 11<sup>th</sup> year (2014-15). However, construction of protective embankment was not yet commenced by the Department.

During the Exit Conference, the Government stated (November 2024) that the issue was taken-up with both the States in presence of CWC, however, there was no response, and the States are not honouring the earlier agreements and the GWDT award. As GoI is planning to fund the project in two Phases, there wouldn't be any submergence issue to impound water upto (+) 41.15 m (Phase-I level). It was also replied that the Government is hopeful of resolving the issue prior to completion of Phase-I.

Though PIP was scheduled to be completed by March 2026, there is no progress in construction of embankment as the issue of environmental clearance and submergence aspects are yet to be cleared in the Hon’ble Supreme Court. Unless the States of Chattisgarh and Odisha undertake public hearing, embankment work cannot be commenced and as a result the project cannot be put to use to its full capacity.

***Recommendation 2.3: The State Government, in consultation with PPA, should address the submergence issues with the respective States and ensure timely construction of protective embankments to prevent submergence in those States.***

### **2.3.3 Implementation of Lift Schemes without statutory approval**

As per the Guidelines of Central Water Commission (CWC) for Submission, Appraisal and Clearance of Irrigation and Multipurpose Projects, 2010, for any project which has 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 (3) (ii) of the Andhra Pradesh State Re-organisation Act, 2014 mandated that before taking up of any new project on Krishna or Godavari Rivers, CWC approval is to

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<sup>51</sup> letter No. 31267/Maj. Irr. I (2)/2006 dated 04.03.2011

<sup>52</sup> D.O. No. J-12011/8/2009-IA-1 dated 27.02.2013

be obtained. Further, as per the Environmental Impact Assessment (EIA) Rules, 2006, environmental clearance shall be obtained for new irrigation projects.

Anticipating the delay in completion of PIP and to harness the early benefits of RMC and LMC flood water of River Godavari, Lift Irrigation schemes, viz., Pattiseema Lift Scheme (for RMC) and Purushothapatnam Lift Irrigation Scheme (for LMC) were proposed by GoAP during January 2015.

Pattiseema Lift Scheme (PLIS) was proposed (administrative sanction<sup>53</sup> given in January 2015) near Bangarammapeta (V), Polavaram (M) of West Godavari District at a cost of ₹1,300.00 crore. The work was commenced (March 2015) and commissioned in March 2016 by incurring a total expenditure of ₹2,079.94 crore out of GoAP funds.

Similarly, 'Purushothapatnam Lift Irrigation Scheme' (PuLIS) was proposed (administrative sanction given in October 2016) near Purushothapatnam (V), Seethanagaram (M) of East Godavari District at a cost of ₹1,638.00 crore. The objective of the scheme was to discharge water of 140 cusecs from PIPLMC<sup>54</sup> to Yeleru Reservoir and to supplement water to the ayacut under Yeleru Reservoir besides domestic and industrial use as a part of water grid. The work was commenced (January 2017) and completed by July 2018 by incurring an expenditure of ₹1,189.23 crore out of GoAP funds.

Audit noticed that:

- As Godavari and Krishna are Inter-State Rivers, it was mandated under Section 84 (3) (ii) of Andhra Pradesh State Re-organisation Act, 2014 to obtain CWC approval for new project. However, CWC approval along with Environmental Clearance was not obtained for both the Lift Schemes and also the Environmental Clearance of PIP was not amended duly including these projects.
- The Hon'ble National Green Tribunal<sup>55</sup> (NGT), opined (2018) that Environmental Clearance was necessary for both the Lift Schemes and stated that non-obtaining of prior permission from the competent authorities amounts to violation of EIA Notification 2006 and amendments thereto. Further, NGT directed Central Pollution Control Board (CPCB), Andhra Pradesh Pollution Control Board (APPCB), State Environment Impact Assessment Authority and District Magistrate to furnish a report determining the extent of damage caused and the amount of compensation liable to be paid to the affected persons, within six months.

In this regard, MoEF&CC<sup>56</sup> issued (July 2019) a show cause notice to State Government highlighting violation of EIA Notification 2006 and amendments made thereof in construction of the project. Further, it was directed (July 2019) to stop all activities related to PLIS immediately. The Hon'ble Supreme Court also stated that there was no reason to interfere with the impugned order by NGT and dismissed the Civil Appeal<sup>57</sup> filed (March 2020) by WRD, GoAP.

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<sup>53</sup> G.O. Ms. No.1, Irrigation, CAD (Proj. I. A2) Department, dated 01.01.2015

<sup>54</sup> Polavaram Irrigation Project Left Main Canal

<sup>55</sup> based on the application of Jammula Choudhariaiah in OA No.175/2018 and OA No.350/2018

<sup>56</sup> Ministry of Environment Forest and Climate Change

<sup>57</sup> OA No.175/2018 and OA No.350/2018 vide Dairy Nos. 25965/2020 and 28292/2020

The Committee formed by NGT visited (December 2020) the schemes and submitted a detailed report with its recommendations. As per the recommendations, the Hon'ble NGT ordered (December 2021) that the project proponents have acted vehemently illegally and in total disregard of environmental laws. It was further ordered that the Project Proponent of PLIS and PuLIS pay an environmental compensation of ₹24.90 crore and ₹24.56 crore respectively towards environmental damages to APPCB. The Hon'ble NGT also ordered the Project Proponents of PIP to pay a sum of ₹120.08 crore to APPCB. The GoAP has filed civil appeal against the Hon'ble NGT orders in the Hon'ble Supreme Court. As per the interim orders of the Hon'ble Supreme Court, GoAP deposited (March 2023) ₹2.48 crore in respect of PuLIS and ₹1.90 crore for PLIS to the APPCB towards environment compensation as suggested by the NGT committee.

During the Exit Conference, the Government stated (November 2024) that the Schemes were primarily planned for drinking water purpose only and the proposal was addressed to CWC. The CWC did not consider the proposal as drinking water is not in the purview of CWC. To reap early benefits of PIP by using the readily available canals, these were contemplated and there is no component of irrigation in both the schemes. The NGT construed both the schemes as part of PIP and levied a huge penalty. The GoAP has approached Hon'ble Supreme Court (March 2022), and the verdict of Hon'ble Supreme Court is awaited. Meanwhile, the penalty as approved by the committee appointed for the purpose was paid.

The reply is not acceptable, as the NGT while levying penalty considered both the projects as new ones and not as part of PIP. Further, the Administrative Approval accorded by the GoAP for PuLIS clearly states that the scheme is contemplated for irrigation purpose. Thus, due to not obtaining prior approvals from competent authorities and disregard to environmental stipulations, the Government was forced to pay environmental compensation.

***Recommendation 2.4: The State Government should be vigilant to avoid violation of environmental laws and obtain all mandatory environmental and ecological clearances prior to commencement of work, necessitating such clearances.***

#### **2.3.4 Non-maintenance of environmental and ecological balance**

Conditions<sup>58</sup> of agreements concluded with contract agencies<sup>59</sup> for execution of Main Dam and hydro-electric Powerhouse works stipulate that the contract agencies are responsible for maintaining the environmental ecological balance at their own cost and all such costs shall be deemed to have been included in the unit rates and prices included in the contract. The contract agencies shall design construction and operation duly preventing destruction, scarring, or defacing of the natural surroundings in the vicinity of the work. Further, agreement conditions clearly stipulate that any operations carried out by the Engineer-in-Charge for rectification/ make good of any lapses in maintaining the ecological balance by the contract agencies should be done at the cost of the contract agencies.

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<sup>58</sup> clauses 89 & 90 of agreement No.01/2012-13 and clauses 63 & 64 of agreement No. 01/2017-18

<sup>59</sup> first contract agency (work awarded in March 2013): M/s TRANSSTROY-JSC EC UES (JV), second contract agency (work awarded in February 2018): M/s Navayuga Engineering Company Limited and third contract agency (work awarded in November 2019): M/s Megha Engineering Infrastructure Limited

Scrutiny of records revealed that a Court case (OA 309/2015) was filed with NGT by an individual<sup>60</sup> against large scale dumping of muck near residential areas of Mulalanka Village. The Hon'ble NGT directed (August 2015) APPCB, GoAP and PPA to conduct joint inspection and issue appropriate directions in the interest of environment and ecology. However, no action was taken on the direction of Hon'ble NGT. Meanwhile, WRD acquired (July 2016) land measuring 203.74 acres for dumping waste and muck at Mulalanka Village arising out of construction activity of PIP.

Aggrieved by the inaction of GoAP to earlier writ petition, the individual again approached (OA 66/2017) NGT and the Hon'ble NGT constituted (March 2017) a joint inspection team of MoEF&CC and representative of CPCB, directing them to visit the project site and submit a detailed report. Consequently, the joint inspection team conducted site visit (April 2017), held discussions (April/May 2017) with Project Authorities of Polavaram Project and submitted (May 2017) report, along with affidavit. The NGT directed GoAP and representative of MoEF&CC to examine the entire issue after hearing the applicant and pass an appropriate order.

The applicant had again raised (October 2018) grievance with NGT stating that no action was taken by the authorities concerned. The Hon'ble NGT constituted a four-member Committee<sup>61</sup>. Based on the report submitted by the Committee, the Hon'ble NGT directed PPA to take necessary steps and submit compliance report through nodal agency, *i.e.*, APPCB.

In compliance to suggestions made by the Hon'ble NGT, WRD has initiated corrective measure in September 2021 for disposal of Muck in the dump areas and entrusted the work<sup>62</sup> to the existing contract agency<sup>63</sup> (Main dam work entrusted in November 2019) for ₹13.93 crore. The entire work was completed, and final payment<sup>64</sup> was made (July 2022) to the contract agency.

Audit noticed that the muck was dumped by the first and second contract agencies and the work of proper disposal/ layering of muck was done by third contract agency at additional cost. The responsibility of removal of spilled muck lies with the first and second contract agencies at their cost as per terms of agreement.

Due to non-enforcing agreement conditions by the Department against the earlier contract agencies to maintain the environmental and ecological balance, avoidable extra expenditure was necessitated for rectification works at a cost of ₹13.93 crore.

Further, Audit also noticed an instance wherein the Executive Engineer (EE) addressed (in August 2018) the second contract agency<sup>65</sup> to remove the muck slipped into Kadem Sluice drain at Mulalanka dumping yard, so as to have free flow of drain water into river Godavari and to avoid the inundation of land in Mulalanka Village. Further, EE directed the contract

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<sup>60</sup> Dr. Pentapati Pulla Rao

<sup>61</sup> comprising (a) representative of CPCB; (b) Additional Principal Chief Conservator of Forest; (c) APPCB and (d) District Collector and Magistrate, West Godavari District, Andhra Pradesh

<sup>62</sup> dozing, spreading and levelling the excavated material at the dump site in layers including cost of all materials machinery, labour, all operations such as spreading in layers, *etc.*, complete in line with the directions of Hon'ble NGT

<sup>63</sup> M/s Megha Engineering Infrastructure Limited

<sup>64</sup> bill No.LS 24<sup>th</sup> & Part dated 20.07.2022

<sup>65</sup> M/s Navayuga Engineering Company Limited

agency to take utmost care for protection of existing streams, drains, roads, *etc.* However, no action was taken by the contract agency.

The Government replied (June 2024) that the excavated material is being dumped at a height up to 25 m to 30 m from the existing ground level, for effective utilisation of the available limited dump area. The excavated material is of very huge quantity of which soil is about 317.03 lakh cum and 389.88 lakh cum of rock, which requires a lot of land. As acquisition of land involves a huge task, the muck has been dumped by spreading in layers and leveling in each layer by use of machinery at the site, duly complying with the suggestions made by the Committee constituted by Hon'ble NGT, and recommendations of six members committee.

During the Exit Conference, the Government stated (November 2024) that earlier contractor has dumped the muck at the Mulalanka dumping ground as per the terms of the contract and sloping to the dumped muck was not in the purview of the contract. As per the directions of the Expert Committee appointed by Hon'ble NGT, sloping to the dumped muck and watering was done. Also, the GoI has formally agreed to reimburse the expenditure incurred towards levelling / stabilisation of the dumping ground.

The reply is not acceptable. The additional expenditure was necessitated for the above work as per the directions of NGT for scientific disposal of muck which was not done previously by the earlier contract agencies in line with the agreement conditions. The amount remained unrecovered from the contract agencies<sup>66</sup> who failed to comply with the agreement conditions.

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<sup>66</sup> first contract agency: M/s TRANSSTROY-JSC EC UES (JV), second contract agency: M/s Navayuga Engineering Company Limited



# Chapter III

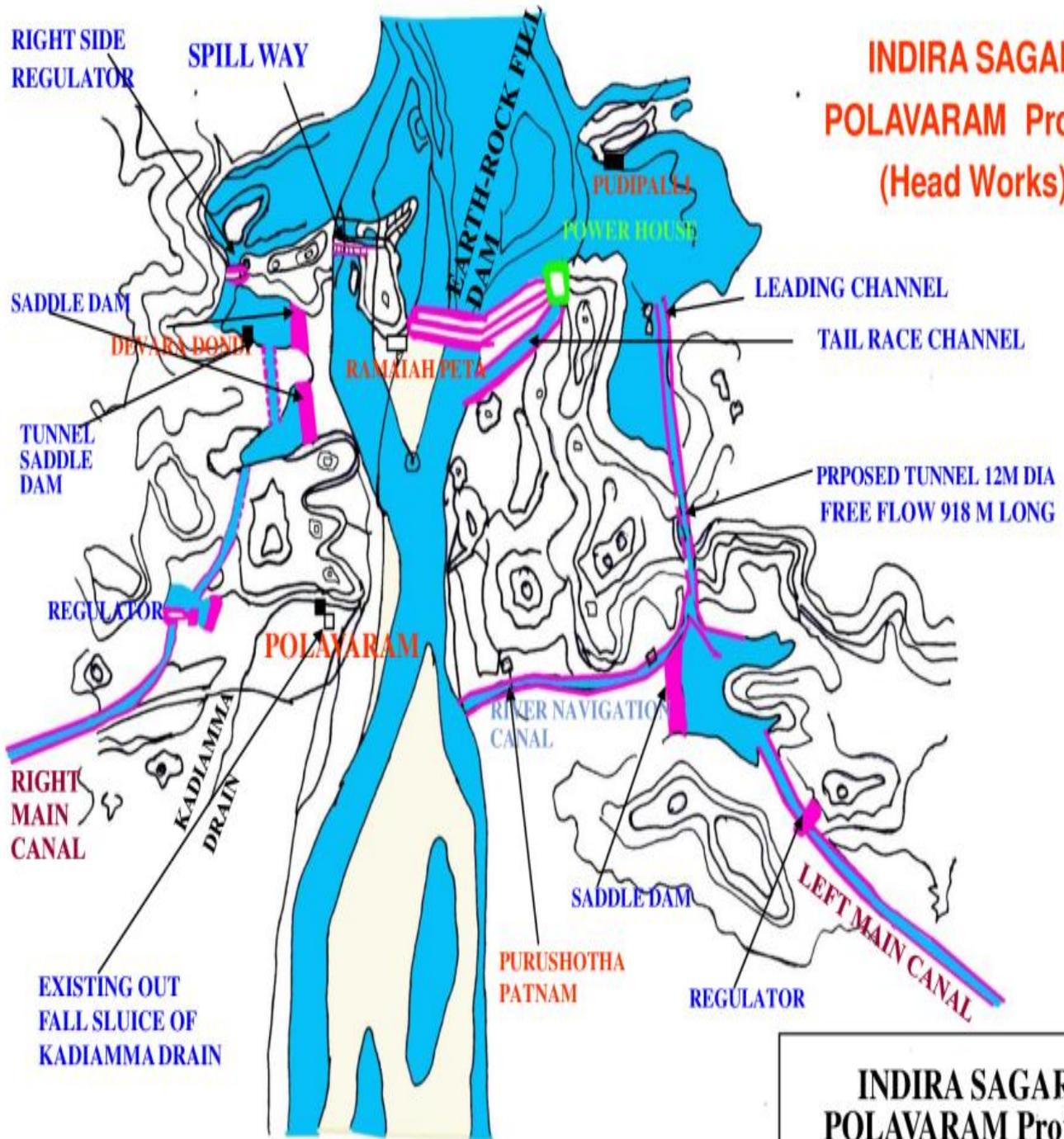
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## **Construction of Headworks and Powerhouse**

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# INDIRA SAGAR POLAVARAM Project (Head Works)



INDIRA SAGAR  
POLAVARAM Project  
INDEX MAP OF HEAD WORKS



## Chapter III Construction of Headworks and Powerhouse

Though planning tools and project monitoring system (PRIMAVERA), used for effective implementation of project, was procured by the Department, the same was not put to use. Non-adherence to the planned construction schedule led to damage to the Diaphragm Wall (D-Wall) and expenditure incurred on construction had become wasteful. The rectification of D-Wall was not taken up as of March 2023. There were instances of awarding of works on nomination basis duly revising the estimate in violation of rules, finalisation of contract agency by altering tender conditions and rules selectively and awarding of works to single tenderer in contravention to government rules for reverse tendering process.

The discharge capacity of twin tunnels was unilaterally increased in the right connectivities by GoAP without obtaining prior approval of PPA and CWC. Non-handing of clear title of land for execution of left side connectivities rendered the execution of left connectivities incomplete, even after 17 years of commencement of the project.

Interest free Special Revolving Fund and Special Imprest were sanctioned to the contract agencies, in contravention to the laid down rules, which led to loss of interest that could have been earned. Despite declaration of rock class by the Geological Survey of India as poor and suggested treatment of weak rock zones, the excavation of twin tunnels was carried out without treatment, which led to collapse of tunnel and expenditure rendered as wasteful. Due to closure of agreement with the existing contractor, GoAP had to shoulder additional expenditure towards dewatering and silt removal. Quality Control (QC) certificates are being issued to the contractors for facilitation of bills, despite non-compliance to the Inspection notes issued by QC wing.

In execution of Polavaram Hydro-electric Project, the Department had extended interest free advances causing loss of interest to the exchequer. Bank guarantees submitted by contract agency did not cover the contract period and were expired prior to termination of contract. There was delayed claim for goods and service tax after expiry of stipulated period. Procurement of Electromechanical material without immediate need resulted in idling of material. The cost of third-party quality assurance agency being the responsibility of contract agency was borne by the Department.

### 3.1 Construction of Headworks

The scope of work for Headworks consists of construction of 2,454 m long Earth-Cum-Rock Fill (ECRF) dam<sup>67</sup> (in Gap-I, II & Gap-III) with a maximum height of 45.08 m across the main

<sup>67</sup> the project comprises an ECRF dam of 564 m long and 25.32 m high in Gap-I on the left bank of the river; 1,750 m long and 45.08 m high in Gap-II at the center of the river and a concrete dam of 140 m long and 15.32 m high in Gap-III on the right bank

course of the river with Spillway on the right flank, and Powerhouse on left flank on downstream slopes of 'D' hill. To arrest the seepage of river water under ECRF dam, twin plastic concrete<sup>68</sup> Diaphragm Walls of 0.60 m thickness 2m apart was proposed. The Diaphragm Wall was to be constructed with plastic concrete using panel construction<sup>69</sup> method. To facilitate the construction of ECRF dam, it was proposed to block the river flow by constructing Cofferdams<sup>70</sup> and divert the flow through Spillway. The proposed gross storage capacity of the reservoir so formed would be 194.60 Thousand Million Cubic feet (TMC) at Full Reservoir Level (FRL) of (+) 45.72 m and live storage of 75.20 TMC.

The Spillway with crest level at Elevated Level (EL) of (+) 25.72 m located on the right bank is designed to discharge a maximum flood of 36 lakh cusecs with structural stability of probable maximum flood of 50 lakh cusecs. The length of Spillway proposed was 1,054.40 m overflow section and non-overflow of 37 m on either side with total length of 1,128.40 m long. The Spillway shall consist of 48 numbers of radial gates of size 16 m width and 20 m height. In the upstream of Spillway an Approach Channel (2,310 m long) and in the downstream a Spill Channel (2,764 m long) and Pilot Channel are to be provided. Stilling basin (110 m long and 1,043.40 m wide) with floor level of EL (+) 9.25 m shall be constructed in the downstream of Spillway for energy dissipation.



**Picture 3.1: Present status of Construction of Spillway**

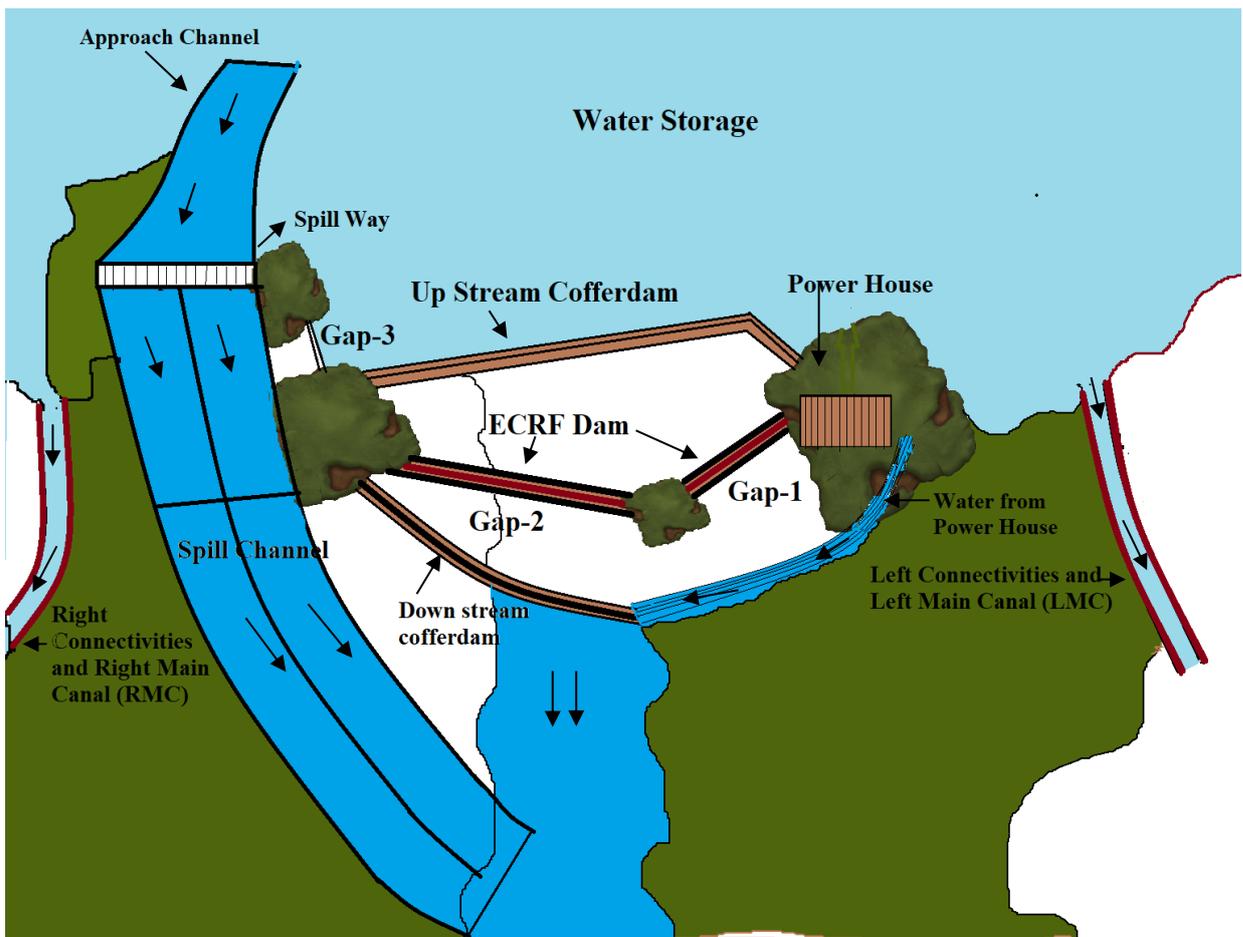
To connect the ECRF dam with the canals, right and left connectivities were proposed on both sides of the dam. The components of right and left side connectivities include construction of Head Regulators, entry & exit channels, excavation of tunnels, saddle dams, irrigation tunnel, navigation canal, *etc.* Suitable earthen bunds were proposed at E&F saddles to form subsidiary reservoirs interconnected with tunnels. A line diagram showing the layout of Headworks is given below:

<sup>68</sup> plastic concrete is used to provide a seepage cut-off wall that has sufficient strength to withstand both static and seismic stresses beneath ECRF dam which is flexible enough to undergo seismic deformations with the surrounding soils

<sup>69</sup> panel construction method involves construction of guide wall, excavation to form trench and reinforcement and placing of concrete

<sup>70</sup> upstream with top elevation of (+)42.50 m and downstream elevation of (+)30.50 m

Picture 3.2: Line diagram showing layout plan of Headworks



### 3.1.1 Planning Process

#### 3.1.1.1 Non-adoption of planning tools for effective implementation of project

The guidelines for preparation of Detailed Project Reports (DPRs) of Irrigation and Multipurpose Projects issued (2010) by Ministry of Water Resources emphasised formulation of Project Evaluation and Review Technique (PERT) Charts or Critical Path Method (CPM) diagrams (while preparing construction programme) for effective monitoring of milestones and taking timely remedial measures in all irrigation projects. The PERT/CPM would help in assessing the safety and proper functioning of dams and other hydraulic structures in river valley projects. The DPRs for irrigation and multipurpose projects shall be approved by the Central Water Commission (CWC). The Polavaram Project Authority (PPA) also suggested (July 2019) to hire services of consulting agency for providing service on PRIMAVERA software for monitoring real time progress of the project.

Audit noticed that though modified DPRs were prepared (2017-18) and got approved (February 2019) by CWC, the Department did not prepare any such PERT/CPM diagrams for effective monitoring of milestones and taking timely remedial measures while finalising the project cost and estimated time for completion of project.

The Government replied (June 2024) that PRIMAVERA software was purchased and installed in five locations. During the Exit Conference, the Government stated (November 2024) that the hardware and software for PRIMAVERA was installed in five locations. As the Department

lack expertise in maintenance / updating the data, the same is being entrusted to Water and Power Consultancy Services (India) Limited and would be in place within three months.

The Government did not furnish the reasons for non-preparation of PERT/CPM diagrams.

Thus, it is evident that though installation of hardware and software was completed, the software was not put to use. The project monitoring system was not implemented even after completion of majority of the works (*i.e.*, 82 per cent of Headworks). It was further noticed that there were critical failures in planning wherein the Department failed to envisage critical works before onset of monsoon/ flooding season, *etc.*, (*as discussed in subsequent paragraph*), thereby delaying the completion of the project and damaging certain portions of already executed works.

### **3.1.1.2 Non-adherence to the planned construction schedule led to damage of Diaphragm Wall**

As per construction schedule/programme stipulated in the Detailed Project Report (DPR) 2010-11 and 2017-18, the construction programme of dam and Headworks was planned for 12 years from the date of commencement of works. As per construction schedule, the project would commence with excavation of Pilot Channel, to be completed by second year of commencement of works. The excavation of foundation for Spillway and Spill Channel shall commence in the second year and continue till fifth year of construction programme. During the fifth year, construction of Diaphragm Wall (D-Wall) for main earth dam was to be commenced and completed partly except in the deep course portion and construction of Spillway on left flank to be completed.

During the first six years of construction schedule, the flood water shall pass through the main river course. Spill Channel would be completed by sixth year to full design section and construction of Diaphragm Wall would be completed except in deep course by sixth year. Approach Channel taken up in sixth year shall be completed, the Cofferdam in ECRF dam would be formed and the balance Diaphragm work in deep course portion would be completed by seventh year. By the eighth year of construction, the river water would flow through the gap of Spillway. The ECRF dam truncated section would be taken up and completed up to Cofferdam level.

Thus, as per construction schedule, diversion of the river course through the Spillway is the prima-facie requirement to commence construction of the D-Wall in the deep course portion and also construction of the Cofferdams.

**(a) Improper implementation of construction schedule**

Audit noticed that in deviation to the above construction schedule, the work of D-Wall<sup>71</sup> was taken up in February 2017 and completed at a cost of ₹399.77 crore by June 2018. However, the works of Spillway and Spill Channel commenced in July 2005 remained incomplete as of June 2018. Spillway was finally completed in September 2022 and the construction of Spill Channel was still in progress as of March 2023. Prior to completion of the Spillway and Spill Channels to the designed levels, and river diversion, the works of both upstream and downstream Cofferdams were also taken up (November 2018) with a target to complete before the onset of 2019 monsoon.



**Picture 3.3: Status of Spillway in August 2019**

As R&R works lagged far behind the schedule, the construction of Cofferdams could not be completed within the available time, *i.e.* before onset of monsoon 2019. Prior to onset of monsoon 2019, the works of both up and down stream Cofferdams was done duly leaving a total gap of 600 m length on both ends of the upstream Cofferdam for passage of water.

Meanwhile, GoAP had ordered stop work (July 2019) and pre-closed (August 2019) the contract with the existing contract agency. The contract was pre-closed without entrusting the works to another contract agency. Thus, necessary steps / precautions to protect the already executed works were not covered by the contract, as it was pre-closed.

During the monsoon period August to October 2019 and October and November 2020, floods with a maximum discharge of 14.90 lakh cusecs and 24.00 lakh cusecs respectively occurred in River Godavari. The flood water could not pass through the main course due to ongoing construction of Cofferdams across the river and the water could not be routed through Spillway as construction of Spillway was not completed.



**Picture 3.4: Damaged upstream Cofferdam**

As a result, at project site, the flood flow of width 2,400 m was allowed to pass through the available width of 600 m on upstream of Cofferdam. The excessive flood flow than the

<sup>71</sup> of length 1,396.60 m with a maximum depth of 93.50 m

capacity, not only damaged the partially constructed Cofferdam, but also caused severe damages to the D-Wall. Also, the riverbed in ECRF Gap-II portion was deeply eroded on both up and down stream side of D-Wall.

Thus, due to non-adherence to the planned construction schedule as per DPR and also due to non-existence of a contract agency to mitigate the situation, the flood water was blocked from passing through the normal river course and provision for diversion was not available due to non-completion of Spillway and Spill Channel. Instead, the entire flood water was allowed to pass through the gaps of upstream Cofferdam which resulted in damage to Cofferdam works and D-Wall. Thus, the entire expenditure of ₹399.77 crore incurred towards construction of D-Wall was rendered wasteful.

**(b) Rectification works for Diaphragm Wall**

At the request (May 2022) of WRD, National Hydroelectric Power Corporation (NHPC) visited the project site, conducted geo-physical studies and other required tests and presented (March 2023) the observations to Dam Design Review Panel (DDRP). The members of DDRP agreed for construction of a new D-Wall parallelly in the scoured portions and in two weak zones upto fresh rock level with proper link with the existing intact D-Wall and further suggested to remove the top 5m degraded D-Wall from Chainage 363m to 1035m. Accordingly, Government accorded (April 2023) administrative sanction for the rectification work<sup>72</sup> of D-Wall for ₹2,020.05 crore.

Thus, it took four years (since 2019) to assess the extent of damage and finalise the alternatives to rectify the damaged D-Wall, due to which construction of ECRF dam could not be commenced.

**(c) Expenditure towards rectification work**

Audit noticed that to safeguard the already constructed structures or to rectify the damaged Cofferdams, the Department had incurred an additional expenditure of ₹143.50 crore towards protection works of Cofferdam as detailed in *Table 3.1*.

**Table 3.1: Showing the rectification works taken up**

Sl. No.	Name of the Work	Expenditure incurred (₹ in crore)
1.	Filling up of Cofferdams toe region with sand	109.54
2.	Protection works to the partially completed upstream and downstream Cofferdams and Diaphragm Wall	20.77
3.	Temporary work of Ring bund & Pipe culverts works under the upstream Cofferdam in reach III	10.34
4.	Sand filters for rectifying scoured portion in the Cofferdams	2.85
<b>Total</b>		<b>143.50</b>

Source: Information furnished by the Department

Thus, non-adherence to construction schedule had led to additional burden on the exchequer towards rectification works.

<sup>72</sup> G.O.RT.No.138 WRD dated 10.04.2023

The Government replied (June 2024/November 2024) that as PIP being a ‘National Project’, many institutions<sup>73</sup> are closely involved in construction of the project. The works of PIP were being carried out, based on the decisions, recommendations / suggestions of these institutions from time to time. Under these conditions, there was no possibility for execution of the project works haphazardly by the Department. Regarding rectification works, it was replied (June / November 2024) that in view of the urgency and as per the direction of DDRP, protection works were taken up for partially completed Cofferdams.

During the Exit Conference, the Government stated (November 2024) that the project involves very complicated Geo-technical aspects. At the time of preparation of DPR the dam was planned to be constructed in seven years. However, due to many challenges encountered during the process of execution, the actual execution got delayed and after detailed discussions and deliberations by various institutions involved, it was decided to execute the dam works and D-Wall along with the Cofferdams parallelly to save time. All the works executed in PIP were planned and monitored by various institutions. Now, a new D-Wall parallel to the existing one is planned for construction at an approximate cost of ₹990 crore.

The reply is not acceptable, as WRD and PPA failed to get the work executed in a sequential manner as per construction programme. Also, the contract with the second contract agency was pre-closed by the Government before awarding of the work to another contract agency. This led to damage to the already executed works resulting in a wasteful expenditure of ₹399.77 crore besides an estimated extra expenditure of ₹2,020.05 crore towards repairs/rectifications of the damaged D-Wall and an additional expenditure of ₹143.50 crore towards protection works to the Cofferdams.

***Recommendation 3.1: The State Government should ensure that the formulated construction schedule is adhered to, for smooth execution of the main dam work and finalise the long pending rectification work of damaged D-Wall.***

### **3.1.1.3 Grounding of works without prior approval of competent authority**

Section No. 9 (6) & (8) of the notification published (May 2014) by GoI, outlined the powers and functions of PPA. The PPA shall determine the volume of water to be stored, flowing in and out of the Polavaram reservoir, the volume of water utilised through each Main or Branch Headworks and evaporation and seepage losses on daily basis in a water year (1 June of a year to the 31 May of next year). The Authority shall decide on proper management of water including the manner and details of withdrawal of water from Polavaram reservoir in accordance with the orders of the Godavari Water Disputes Tribunal.

Audit noticed that GoAP had accorded administrative sanction (April/ September 2021) to take up the works *viz.*, lifting of water from PIP for a lift irrigation scheme and enhancement of discharge capacity of tunnels without the mandatory approval of PPA. The works were awarded to the contract agencies as shown in **Table 3.2**.

**Table 3.2: Details of works grounded without the approval of PPA**

**(₹ in crore)**

<sup>73</sup> Ministry of Water Resources, River Development & Ganga Rejuvenation (MOWR) of GoI, DDRP, CWC, PPA, Central Soil and Material Research Station (CSMRS), Central Water and Power Research Station (CWPRS), Water and Power Consultancy Services Limited (WAPCO'S) and A.P. State Government bodies

Name of the work	Agreement Value	Date of award of work	Intended date of completion	Expenditure incurred as of March 2023	Status
Polavaram Lift Irrigation Scheme <sup>74</sup> for lifting of water <sup>75</sup> from the dead storage of PIP.	765.94	28.10.2021	27.10.2023	NIL	Work is in progress.
To enhance <sup>76</sup> discharge capacity from 20,000 cusecs to 40,000 cusecs of twin tunnels in respect of Package-63 work (Right Side Connectivities).	104.87	07.09.2021	14.12.2023	NIL	
To enhance <sup>77</sup> discharge capacity from 20,000 cusecs to 40,000 cusecs of twin tunnels in respect of Package-64 work (Right Side Connectivities).	116.87	07.09.2021	14.12.2023	2.07	1.78 per cent of work completed.

Source: Compiled based on Data provided by the Department

The nature of above works taken up necessitates changes in storage capacity and discharge capacities of dam and canals respectively and also drawal of water which needs prior approval of PPA. However, no prior approval of PPA was obtained for taking up of above-mentioned works by GoAP.

The Secretary, MoJS in the review meeting (June 2021) observed that implementation of the scheme be taken only after the scheme is found techno-economically viable and advised GoAP against any hasty action on the proposed new scheme. Further, in the review meeting, Secretary, MoJS directed to stop all the unapproved works. However, GoAP, without ascertaining techno-economic viability and due processes, had gone ahead and grounded (September and October 2021) the works at a cost of ₹987.68 crore and incurred an expenditure of ₹2.07 crore as of March 2023.

The Government replied (February 2023) that the process of obtaining permission from the competent authority in respect of the above three works is in progress. During the Exit Conference, the Government stated (November 2024) that the work for enhancing the discharge capacity from 20,000 cusecs to 40,000 cusecs was taken-up with a futuristic view of interlinking the rivers.

The reply is not acceptable, as PPA is the competent authority for allowing drawal of water out of PIP, permission to draw water should have been obtained prior to grounding of works. Grounding works without approval may subsequently result in stoppage of work midway, litigation, etc., and the expenditure incurred would be rendered wasteful, if the permission is not accorded by the competent authority. Moreover, as the discharge capacity of RMC was designed for 496.21 cumecs (17,523 cusec) increasing the discharge capacity of twin tunnels to 40,000 cusec is not warranted.

<sup>74</sup> G.O.RT.No.134 dated 19.04.2021

<sup>75</sup> to provide drinking water facilities to drought prone areas of West Godavari and Krishna Districts

<sup>76</sup> G.O.RT.No.335 dated 07.09.2021 (Package 63) - Construction of tunnel of about 900m length

<sup>77</sup> G.O.RT.No.336 dated 07.09.2021 (Package-64) - Construction of tunnel of about 880m length

### 3.1.1.4 Non-handing of clear title of land for execution of left side connectivities

The work ‘Construction of tunnel of 919 m of left side connectivities (Package Number 65)’ was entrusted (March 2005) to a contract agency<sup>78</sup> on EPC contract system for an amount of ₹90.99 crore. A supplementary agreement for additional items of work was concluded<sup>79</sup> (June 2006) for ₹12.92 crore. The total agreement value of work after inclusion of additional items was ₹103.91 crore and to be completed in 24 months (June 2008). However, the work could not be progressed and completed within the given time due to issues related to Land Acquisition.

Scrutiny of records revealed that after completion of work worth ₹15.02 crore, the contract was terminated (November 2018) under Clause 72<sup>80</sup> of Preliminary Specifications to Andhra Pradesh Detailed Standard Specifications (PS to APDSS), as the contract agency was declared (June 2017) insolvent by Hon’ble Mumbai High Court.

The balance work worth ₹88.89 crore was administratively approved for ₹276.80 crore and was awarded (March 2019) to another agency<sup>81</sup> for ₹290 crore by inviting tenders with revised Standard Schedule of Rates (SSR) with a condition to complete the work in 18 months. The agency had executed work worth ₹1.81 crore, before the work was pre-closed (final bill paid in December 2019) under Clause 7.3<sup>82</sup> of agreement. Subsequently, the work was awarded (November 2019) to the same agency on reverse tendering system for ₹231.47 crore with time period for completion of 18 months (*i.e.* by May 2021). Out of this, an amount of ₹126.29 crore was paid (June 2023) to the contract agency upto LS XXVIII & part bill.

However, the work could not progress as villagers (P.Gonduru Village of Devipatnam Mandal) raised objection and stated that pattas were issued in the name of the villagers, for the land required for Approach Channel-II, by the District Forest Officer under Recognition of Forest Rights. The issue was finally resolved in June 2020.

Audit noticed that:

- The Department had awarded the work without handing over of clear work site (including Forest land up to January 2011) to the first contract agency, due to which multiple extensions of time (finally in November 2018) was given to the agency invariably without progress of work. As a result, the components of work *viz.*, Approach Channel, tunnel, Head Regulator and Navigation lock were held up without progress.
- Changes in contract agencies and the contract system led to revision of rates resulting in an escalation of contract price.

Due to the above, the balance work of ₹88.89 crore was awarded for ₹231.47 crore at SSR 2018-19 resulting in cost escalation of ₹143.12 crore and also time overrun of more than 17 years from the actual date of award of work. Despite incurring an expenditure of ₹143.12 crore (₹15.02 crore + ₹1.81 crore + ₹126.29 crore), the work remained incomplete.

<sup>78</sup> M/s Unity Infra Projects Limited, Mumbai

<sup>79</sup> agreement No.1/2006-07 dated 21.06.2006

<sup>80</sup> in the event of the death or insanity or insolvency or imprisonment of the contractor or where the contractor being a partnership or firm becomes dissolved or being corporation goes into liquidation, voluntary or otherwise, the contract may, at the option of the Executive Engineer, be terminated

<sup>81</sup> M/s Max Infra (I) Limited, Hyderabad

<sup>82</sup> the Executive Engineer may terminate the contract for convenience

The Government replied (June 2024) that due to objections raised by Government of Odisha, Hon'ble Supreme Court of India had issued stop work orders in 2006 and works were stopped during May 2006 to April 2007 by the first contract agency. The Agency resumed the work (April 2007) of Approach Channel in non-forest zone and again suspended the work as the land required was not acquired by LA Authorities and local people demanded immediate land compensation for Patta land. Due to non-acquisition of forest land up to January 2011, the components of work were held up. Subsequently, the work was awarded to second contract agency and the contract was pre-closed and awarded (November 2019) to the same agency on reverse tendering system. The work could not be progressed due to objections raised by villagers, delay due to Covid-19 restrictions imposed by the Government, revision of drawings and non-payment of running account bills to contract agency.

Thus, it is evident from the reply that works were awarded on land, which was not acquired and for forest land, clearance had not been obtained from the Forest Department which led to dispute. The inaction of the Department to resolve the land issues promptly resulted in time and cost overrun and an additional burden on the exchequer.

### **3.1.2 Awarding of works**

The Headworks including connectivities (both left & right) were divided into seven packages. The work "Investigation, survey, preparation of designs, drawing and construction of Headworks with components of ECRF dam, Spillway, Spill Channel, Approach Channel and Pilot Channel, etc., (Main Dam Package)" was initially awarded (March 2013) to a contract agency<sup>83</sup> for ₹4,054 crore under EPC system with period of completion as 60 months *i.e.*, by March 2018. Subsequently, during execution of works, the mode of contract and contract agencies were changed due to various reasons.

As of March 2023, Headworks worth ₹7,422.69 crore were awarded, expenditure of ₹5,757.48 crore was incurred, and balance works worth ₹1,665.21 crore were in progress.

#### **3.1.2.1 Pre-closure of work on the recommendation of expert committee which had no scope in National Project**

As per Article 51 of Andhra Pradesh Financial Code Volume-I, contracts for supply of stores or for execution of works, should be given on tender basis. However, as per Para 154 of Andhra Pradesh Public Works "D" code, the works proposed to be entrusted on nomination basis (duly dispensing with tenders), have to be entrusted at estimate rates only. This procedure can be followed only in case of emergency or with reasons to be recorded as per the delegation of powers.

As the original contract agency for the work "Main Dam Package" had achieved (January 2018) only 30.90 *per cent* financial progress (₹1,755.05 crore), Government had issued<sup>84</sup> orders (February 2018) for entrustment of balance work to the second contract agency<sup>85</sup> on nomination basis under Lumpsum (LS) system to improve the progress of work.

The work was awarded (February 2018) to second contract agency for an amount of ₹2,019.67 crore<sup>86</sup> with a stipulation to complete the work within 18 months. After incurring an

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<sup>83</sup> M/s TRANSSSTROY-JSC-EC-UES (JV) at 14.06 *per cent* less over Internal Bench Mark (IBM)

<sup>84</sup> memo No. ICD01-19052/40/2018-PROJ-I-WRD dated 17.02.2018

<sup>85</sup> M/s Navayuga Engineering and Constructions Limited

<sup>86</sup> revised estimates as per SSR 2015-16 for execution of balance works of Main Dam package

expenditure of ₹1,579.49 crore, Chief Engineer, PIP, Dowlaiswaram had issued (July 2019) termination notice<sup>87</sup> to the second agency for pre-closure of work, on the recommendations (May 2019) of the Expert Committee<sup>88</sup> duly stating that entrustment of work on nomination basis was not appropriate.

The balance work of ₹440.18 crore to be executed by the second agency was awarded (November 2019) to a third agency<sup>89</sup>, under reverse tendering system for ₹1,548.13 crore (12.60 per cent less than Estimated Contract Value of ₹1,771.31 crore) with a condition to complete in 24 months (November 2021). Out of awarded amount, ₹1,194.41 crore was paid to the contract agency to the end of March 2023 and the work was in progress.

Audit noticed that:

(a) The Chief Executive Officer (CEO), PPA had addressed (August 2019) GoAP and stated that there is neither ground nor any necessity for pre-closure of the present tenders and retendering the works. It was further stated that such a step would result into unforeseen consequences and plunge the project into uncertainty. The project is not only likely to get delayed, but also would have adverse socio-economic impact, as well due to delay in realisation of the benefits from the project apart from likely increase in cost of the project. It was also advised to abandon the idea of pre-closure and retendering of the works in the best interest of the project or atleast keep in abeyance till a considered view is taken by GoI.

However, disregarding the advice of CEO, PPA, the GoAP has proceeded with the pre-closure of the agreement with the second contract agency (August 2019) and proceeded with retendering of the balance work.

(b) In contravention of Andhra Pradesh Financial Code, the work was awarded on nomination basis<sup>90</sup> to second contract agency without recorded reasons. Though the work was awarded on nomination basis, the works were awarded at revised estimated rates of SSR 2015-16 instead of at original estimate rates and also the contract system was changed from EPC to LS. This resulted in cancellation of the work contract and in turn delayed the completion of work.

(c) Projects / works, except taken up under Centrally Sponsored Scheme (CSS), Externally Aided Projects (EAP), Accelerated Irrigation Benefits Programme (AIBP)/ Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) and National Bank for Agriculture and Rural Development (NABARD), would come under scope of the Expert Committee. As Polavaram Project, is a National Project, this would not come under the scope of the Expert Committee constituted by the State Government. The recommendation of Expert Committee, which did not have scope in giving its recommendation for the National Project, resulted in extra expenditure of ₹1,107.95 crore (₹1,548.13 crore - ₹440.18 crore).

<sup>87</sup> clause 83.3 of the General Conditions of Contract

<sup>88</sup> constituted by GoAP vide G.O.RT.No.295 dated 14.05.2019

<sup>89</sup> M/s. Megha Engineering & Infrastructures Limited

<sup>90</sup> as per clarification under Clause 60 (C) of PS to APDSS the 'Executive Engineer (EE) can get the balance work executed as per the rate in the agreement of the original contractor'. If EE is, however, unable to find a contractor to execute the balance work at the original agreement rate, EE shall call for tenders at short notice and obtain realistic rates

Thus, the works scheduled to be completed by March 2018 remained incomplete as of March 2023 and expenditure of ₹4,528.95 crore (₹1,755.05 crore + ₹1,579.49 crore + ₹1,194.41 crore) incurred did not yield desired result.

Reply from the Government is awaited (November 2024).

### **3.1.2.2 Arbitrariness in selection of contract agency and undue benefit thereon**

As mentioned in the above paragraph, the Main Dam package work along with construction of Powerhouse was awarded (November 2019) to third contract agency<sup>91</sup> (being single tenderer) on reverse tendering methodology for an amount of ₹4,359.11 crore. The agreement period for completion of Headworks was 24 months and 58 months for Powerhouse. Scrutiny of records pertaining to the tendering and awarding of work to third contract agency revealed the following:

#### **(a) Denial of larger participation due to insufficient bidding time**

Government memo<sup>92</sup> (August 2019) facilitates a minimum of 21 days of response and closure time for the bids invited for balance works of main dam and hydro-electric project. However, the Department had fixed 16 days<sup>93</sup> time for response and closure of bids in tender notice published in August 2019.

Audit noticed that most of the bidders (14 bidders) who participated (September 2019) in the pre-bid meeting had requested for extension of time for preparation of bids. However, the due date for submission of bids was not extended resulting in denial of participation of more bidders in the tender process, as only one bidder participated in the final bidding.

The Government replied (June 2024) that initially the bid document availability date was fixed for a period of 29 days. However, due to technical problems in the e-procurement platform, the tender document could not be uploaded on the website as per the original schedule. Subsequently, an amendment has been issued (September 2019) duly changing the bid availability time to 16 days. It was further replied that the ratification orders are yet to be issued. During the Exit Conference, the Government stated (November 2024) that the orders issued in this regard stipulate 21 days, however, bidding time was reduced due to technical problems of uploading and preparation of tender schedule.

The reply is not acceptable, as documents in support of the technical snag in e-procurement were not made available to Audit. Further, it is more appropriate to extend the bid time when a technical snag has taken place. Denial of minimum bid period was against the principles of natural justice and loss of opportunity for larger participation and competitiveness in tender process.

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<sup>91</sup> M/s Megha Engineering and Infrastructure Limited

<sup>92</sup> memo No. ICD01-MJIR01C28(WTEN)/1/2019-MLO-II dated 17.08.2019 for Polavaram Hydro Electric Project on EPC

<sup>93</sup> from 05.09.2019 to 20.09.2019

**(b) Modification of tender conditions**

As per Government orders issued<sup>94</sup> (August 2019), the prequalification criteria while calling for tenders may be revised suitably as per standard guidelines stipulated in Government orders<sup>95</sup> issued in July 2003 to ensure larger participation. The Department had incorporated the following additional conditions in the tender document for balance works of Main dam and hydroelectric project as shown in **Table 3.3**.

**Table 3.3: Showing the additional conditions stipulated in tender document**

Conditions incorporated in tender document	Condition as per G.O.Ms. No. 94	Clause No. of Tender Document	Remarks
The bidder/JV members who have applied for Corporate Debt Restructuring or Board for Industrial and Financial Reconstruction or Strategic Debt Restructuring during the past five financial years (2013-14 to 2017-18) are not eligible to participate in this bid. Certificate in this regard from statutory auditor to be submitted along with bid.	Not prevailing in the G.O.	9 D (c)	Additional clause incorporated
The contract agency should have capacity for design office backup and field back up having experience on structural and hydraulic design for Spillway, ECRF, Diaphragm Wall, etc., or should have Memorandum of Understanding with such firm of experience.	Not prevailing in the G.O.	9 B (1)	Additional clause incorporated
Liquid assets or credit facilities or solvency certificate from Indian Nationalised or Scheduled Banks for ₹265.72 crore.	Not prevailing in the G.O.	9 C (4)(a)	Additional clause incorporated
Satisfactory completion of (not less than 90 per cent of contract value) similar works.	Satisfactory completion of (not less than 50 per cent of contract value) similar works	9 C (1)(a)	Increased the limit to curb the competition
Net profit made in at least three financial years during the last five years out of which one year should be immediately preceding year and certificate to that effect should be authenticated by statutory auditor.	Not prevailing in the G.O.	9 C (3)	Additional clause incorporated
Minimum annual financial turnover of ₹442.86 crore in all civil engineering and hydro mechanical works in any one year during last 10 years.		9 C (1)	
In respect of works executed outside India, the experience gained in Government Department shall be considered.		13 (24)	

Source: Information furnished by the WRD

<sup>94</sup> Column 2 (iv) of G.O.Ms. 67 dated 16.08.2019

<sup>95</sup> G.O.Ms.No. 94, I&CAD (PW Code) Department dated 01.07.2003

Audit noticed that:

- Modifications of pre-qualification criteria in the tender document for the subject work was not in consonance with Government orders issued in July 2003.
- Prior approval of Government was not obtained though all Engineer-in-Chief (ENCs)/CEs/Commissioner of Tenders (CoT) were instructed<sup>96</sup> (December 2018) to follow Government orders issued in July 2003 and obtain prior approval, if any deviations/special conditions needed incorporation.
- The CoT, while approving the bid also stated (October 2019) that the above clauses in bid document were not as per Government orders issued in July 2003.
- One of the bidders<sup>97</sup> addressed (September 2019) the Water Resources Department and requested to modify certain conditions in pre-qualification criteria as the existing conditions suited only one or two firms in the entire country and reduced the prospects of larger participation. However, no action was taken in this regard.

Audit noticed that the modification introduced, under the provisions of Government Order dated 01 July 2003, did not meet the intended objective of ensuring larger participation as the tender resulted in a single bidder, who could fulfill the modified conditions.

The Government replied (June 2024) that tender conditions were as per rules in vogue. It was also replied that other conditions are incorporated in the interest of successful execution and completion of work duly avoiding the hurdles experienced in the earlier contracts of the project.

During the Exit Conference, the Government stated (November 2024) that conditions were modified on the best interest of government. It was further stated that the tender conditions framed were of sound nature so that competent contractors participate instead of weak contractors and these are not the only reasons for participation of single bidders.

The reply is not acceptable, as additional stringent tender conditions in deviation to Government orders issued in July 2003 and reduction in the bidding time restricted participation of other bidders which resulted in finalisation of contract with single bidder. Though some of the additional conditions incorporated by the Department are in the spirit of timely completion of the work, the financial criteria included are unwarranted and the basis for arriving at the criteria was not made available to audit. Furthermore, prior approval of the Government was not obtained by the Department for incorporation of special conditions in the tender document.

**(c) Finalisation of reverse tender process with single bidder in contravention to government orders**

Para 2 (xv) of Government order (August 2019) stipulate that to conduct a reverse tendering, at least two bidders would be required. The guidelines were intended to be applicable for contracts where the Government is desirous of discovering a fair price through a competitive bidding process for the execution of ongoing projects.

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<sup>96</sup> as per Memo No. ICDO1-COOROMISC/20/2018-Reforms dated 14.12.2018

<sup>97</sup> M/s. SEW Infrastructure Limited

Audit noticed that:

- In contravention to the above Government orders, the Water Resources Department (Part A) and APGENCO (Part B) conducted (September 2019) the reverse tender process for the balance works (₹4,987.55 crore) of Main Dam and Polavaram Hydro-Electric Project (PHEP) and finalised the tender with single bidder, without going for fresh call, which may have denied the Government a competitive bid price.
- As per the provisions of clause 38 of agreement conditions<sup>98</sup>, additional items of work incidental to the main work are to be executed by the contractor at agreement rates. Instead of entrusting the additional items of work<sup>99</sup> incidental to the main work at agreement rates, the Department prepared estimates with current SSR 2020-21 and awarded the work to the same contract agency through tender process for an amount of ₹669.48 crore.

Had the work for additional items been awarded to the contractor at agreement rates, the contract value would have been ₹436.22 crore. This resulted in an undue advantage to the contractor and excess burden on exchequer to a tune of ₹233.26 crore (₹669.48 crore - ₹436.22 crore). Out of ₹669.48 crore, an amount of ₹551.37 crore was already paid (March 2023) to the contract agency.

The Government replied (June 2024) that though single bidder had participated in the reverse tendering, the work was awarded to the third agency<sup>100</sup> as the bid amount quoted by the bidder was 12.60 *per cent* less than the estimated contract value (ECV) and ₹628.43 crore<sup>101</sup> savings accrued to the exchequer. Regarding, PHEP, APGENCO replied (January 2023) that the single bidder was considered as per the approval of CoT, GoAP.

During the Exit Conference, the Government accepted (November 2024) the audit observation, however, submitted that due to selective modification of tender conditions only one bidder participated.

The reply is not acceptable. The modalities contained in the government order stipulates participation of at least two bidders for conducting reverse tendering process. Initiation of reverse tender process with a single bidder is in contravention to the government order and deprivation of competitive price. The claim of the government that 12.60 *per cent less* than ECV was incorrect as the additional works were entrusted, which were contingent to the main work, with rates of SSR 2020-21 instead of SSR 2015-16.

***Recommendation 3.2: The State Government should develop a fair and transparent tendering process that ensures compliance with prescribed rules and government orders to have / promote competitive bidding.***

<sup>98</sup> entrustment of additional items of work contingent upon main work would be authorised by the officers upto the monetary limits competent to accept items. For all items of work in excess of quantities shown in the bill of quantities/schedule-A of the agreement, the rate payable for such items shall be estimate rates for the items (-) or (+) over all tender percentage accepted by the contractor

<sup>99</sup> a) Construction of Reinforced Cement Concrete Diaphragm Wall end cutoff for Spill Channel; b) Vibro-stone columns and deep soil mixing in Gap-II; c) Construction of ECRF Dam Gap-I including Diaphragm Wall cut off vibro stone columns and deep soil mixing, concrete dam- Gap-III; and d) Slope Protection works on both sides of Spillway and Spill Channel

<sup>100</sup> M/s Megha Engineering & Infrastructure Limited (M/s MEIL)

<sup>101</sup> ECV of ₹4,987.55crore – bid value of M/s. MEIL ₹4,359.12 crore

### 3.1.3 Execution of works

The Headworks of PIP consists of various components<sup>102</sup> to be executed. The components of Headworks were divided into different packages and were initially entrusted to various contract agencies under EPC contract system. Subsequently, due to slow progress of works, part of the balance works were deleted from the scope of the original contract agencies and entrusted to other agencies on LS system. Despite change of contract agencies, the works were not completed as of March 2023.

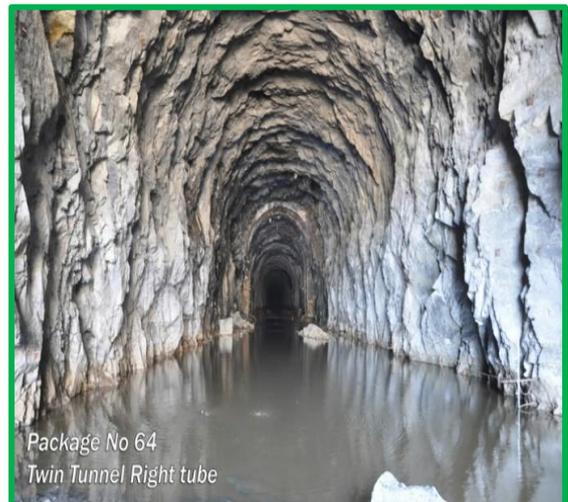
As per the construction programme detailed in DPR (2005), the Headworks were to be completed by the end of December 2017. As of March 2023, the physical and financial progress of the Headworks was 82 and 78 *per cent* respectively and the total expenditure incurred was ₹5,757.48 crore.

Further, construction of ECRF Dam had not yet commenced as the work can be taken up only after finalisation of treatment procedure and rectification of damaged portion of the Diaphragm Wall along with the excavation of Approach and Spill Channel.

#### 3.1.3.1 Delayed entrustment of works

##### (a) Wasteful expenditure on dismantling of existing bed lining and steel supports

The work “Construction of Tunnel of 880 m long with discharge capacity of 20,000 cusecs in the right side connectivities (Package-64)” was awarded (March 2005) to a contract agency<sup>103</sup> for an amount of ₹73.90 crore. Subsequently, Government accorded<sup>104</sup> (September 2021) administrative sanction to enhance the discharge capacity to 40,000 cusecs citing linking of Godavari-Krishna Rivers. The work was entrusted (December 2021) to the existing contract agency<sup>105</sup> on nomination basis at a cost of ₹246.83 crore (including additional works) on EPC system. Further, in a correspondence to the Chief Engineer (PIP), Superintending Engineer (PIP Headwork circle) informed (January 2022) that the lining to the twin tunnels excavated for 20,000 cusecs discharge capacity was not taken up.



Package No 64  
Twin Tunnel Right tube  
**Picture 3.5: Construction of Tunnel in Right Connectivities**

Audit noticed that discharge capacity was enhanced from the existing 20,000 to 40,000 cusecs without the approval of PPA. To carry out the enhancement work, the contract agency had to dismantle the already built ‘Plain Cement Concrete’ (PCC) bed lining (75 *per cent* of work completed), worth ₹13.65 crore<sup>106</sup> for which an amount of ₹1.46 crore was provided in the

<sup>102</sup> ECRF Dam in Gap-I and Gap-II, concrete Dam at Gap-III, Spillway with radial gates, Right and Left side connectivity works and Navigation Channel

<sup>103</sup> M/s UANMAX Infra Limited

<sup>104</sup> G.O.RT.No.336 dated 07.09.2021

<sup>105</sup> M/s MAX-INFRA Private Limited (earlier M/s UANMAX Infra Limited)

<sup>106</sup> ₹11.49 crore for Bed lining + ₹2.16 crore for steel supports

estimates. Further, it was incorrectly informed that the lining to the twin tunnels excavated for 20,000 cusecs discharge capacity was not taken up. This resulted in wasteful expenditure of ₹15.11 crore (₹13.65 crore + ₹1.46 crore).

The Government replied (June 2024) that the decision is taken with a view to harness the surplus water from the River Godavari and for future requirements of the State. It was further stated that to execute the tunnel widening work, it was necessary to remove already laid bed-lining work. Accordingly, a provision has been made in the estimate for widening of the tunnel.

During the Exit Conference, the Government stated (November 2024) that the conception was an afterthought. It could not be assessed at the time of planning, which was a later thought with a futuristic view.

The delay in the decision to take up the work of enhancement of discharge capacity duly dismantling the already executed work, after 16 years of commencement of the original work, is unjustifiable. This injudicious decision had resulted in wasteful expenditure of ₹15.11 crore. Further, the Government has not obtained prior approval for taking up the extension work from PPA / CWC (being the nodal agency for approval of designs).

**(b) Delayed entrustment of Spillway slope protection works**

The Dam Design Review Panel (DDRP) instructed (June 2017) WRD to propose measures required for safety against failure of the slopes due to excavation on the left and right banks of the Spillway and Spill Channel.

As the slope protection works were not covered in the original estimates (August 2019) of Main dam work, the contract agency<sup>107</sup> submitted (February 2020) proposals for slope protection works for hill-1 and hill-2 as an additional item. Accordingly, a detailed estimate for slope protection work of Spillway along with protection work of Spill Channel were prepared (June 2021) for ₹129.33 crore with SoR 2015-16.

At the request of the Chief Engineer (CE), PIP, the Government approved<sup>108</sup> (December 2020) the additional items contingent to main work but not covered in original agreement, as a separate work with SSR 2020-21. Technical sanction was accorded (June 2021) for ₹134.21 crore and agreement<sup>109</sup> was concluded (August 2021) with the contract agency. Subsequently, CE, PIP had approved (June 2022) deviation (shotcreting<sup>110</sup> in inaccessible areas) for additional items for an amount of ₹16.67 crore. Thus, the total cost of executing the slope protection work amounted to ₹150.88 crore (₹134.21 crore + ₹16.67 crore).

Audit noticed that though DDRP had instructed the Department to execute the subject work in June 2017 itself, the same was neither included in the LS agreement of second contract agency<sup>111</sup> (awarded in March 2018) nor in the original agreement of third contract agency<sup>112</sup> (awarded in August 2019). The Department had entrusted (in August 2021) the work as an additional item as per current SSR 2020-21 to the third contract agency.

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<sup>107</sup> M/s Megha Engineering & Infrastructure Limited

<sup>108</sup> Government Memo No. ICD01/-MJIR01C28/207/2020-PROJECTS-I dated 25.12.2020

<sup>109</sup> agreement No.02/2021-22 dated 27.08.2021, item IV

<sup>110</sup> method of applying concrete with high velocity onto a vertical surface

<sup>111</sup> M/s Navayuga Engineering Company Limited

<sup>112</sup> M/s Megha Engineering & Infrastructure Limited

Had the Department taken prompt action and entrusted the slope protection work to the contract agency along with the dam work at SSR 2015-16 rates, the additional expenditure of ₹4.88 crore (₹134.21<sup>113</sup> crore - ₹129.33 crore) could have been avoided.

The Government replied (June 2024) that the work was entrusted to the first contract agency, as per DDRP instructions, which submitted a stability analysis report for Spillway and Spill Channel (*i.e.*, from (-) 200 m upstream to (+) 356 m downstream). However, before the work could be taken up the contract was terminated. Based on the report submitted by the first contract agency, the second contract agency prepared designs/drawings and submitted them to CWC for approval. Meanwhile, the contract with the second agency was also terminated. The new agency, based on site conditions and citing difficulty in execution of work, had submitted revised drawings and the same were approved by CWC only in February 2021. As the approved drawings were prepared for both Spillway and entire Spill Channel (*i.e.*, from (-)200 m upstream to (+) 990 m downstream), the quantities to be executed have increased and the estimates were prepared with SSR 2020-21 for ₹134.21 crore. Further, CE, PIP has approved (June 2022) deviations for ₹16.67 crore. Thus, the total cost of the subject work amounts to ₹150.88 crore.

During the Exit Conference, the Government stated (November 2024) that due to delayed finalisation of designs, the protection works were not entrusted to the earlier contract agencies.

The reply is not acceptable, as the Department has not produced any proof of entrusting the work or entering into a supplementary agreement with the first contract agency. However, the reply is silent as to why the slope protection work which was entrusted to the original contract agency was not made part of the scope of work while entrusting the Main Dam work to the third contract agency.

Thus, entrustment of the slope protection work which is contingent to main work to the contract agency at ₹134.21 crore with SSR 2020-21 rates instead of ₹129.33 crore at SoR 2015-16 rates resulted in cost escalation by ₹4.88 crore.

### **3.1.3.2 Undue financial assistance to contract agencies**

The work “Construction of Main Dam and Powerhouse” was awarded and agreement was concluded (March 2013) with a contract agency at a cost of ₹4,054 crore with a condition to complete the work by March 2018. Scrutiny of records revealed the following:

#### **(a) Provisioning of special imprest to a contract agency**

As per clause 25 of Special Conditions of agreement, the contract agency<sup>114</sup> shall supply materials, plant, tools, appliances, implements for proper execution of work, at its own cost. The Government of Andhra Pradesh (GoAP) sanctioned (May 2017 to May 2018) a special imprest amount of ₹170 crore to Superintending Engineer, PIP Headworks Circle, Dowlaiswaram for arranging payments to the contract agency towards material purchase and other expenditure.

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<sup>113</sup> the estimate prepared by the Department using SoR 2015-16 did not include the additional item shotcreting in inaccessible area for ₹16.67 crore

<sup>114</sup> M/s TRANSSTROY -JSC-EC-UES (JV)

This was in addition to the mobilisation advance paid for the same purpose, subject to recovering the amounts so paid from the subsequent running account bills of the agency. The amounts recovered shall be recouped to the imprest fund for subsequent use. While sanctioning the special imprest, the Government directed to formulate 'Guidelines for Operation' of the fund.

Audit noticed that:

- Of the ₹170 crore special imprest created, an amount of ₹446.32 crore was advanced cumulatively to the contract agency and an amount of ₹302.10 crore was recovered cumulatively between August 2017 to November 2018. Further, the special imprest amount released to the agency were not fully recouped/recovered leaving a balance of ₹144.22 crore (as of November 2018) to be recovered.
- Out of ₹144.22 crore to be recovered, ₹123.07 crore was recovered (March 2019) through encashment of BGs leaving a balance of ₹21.15 crore to be recovered as of March 2023.
- Guidelines for Operation of Special Imprest Fund were not formulated by the Department.
- The Government order was silent regarding levy of interest on the amount advanced through imprest. Based on the interest rate (11 *per cent*) levied as per agreement clause 49.4<sup>115</sup>, the interest on the amounts released to agency from time to time worked out to ₹30.61 crore (till March 2023) as detailed in **Table 3.4**. Details of imprest advanced, recoveries made and interest calculation on the advanced amount is given at **Appendix 3.1**.

**Table 3.4: Showing the amount of interest to be levied**

Sl. No.	Details		Amount (₹ in crore)
1.	Imprest	Total imprest amount advanced to contract agency	446.32
2.		Amount recovered	302.10
3.		Amount recovered through encashment of BGs (29.03.2019)	123.07
4.		Amount to be recovered from contract agency	21.15
5.	Interest on Imprest	Rate of interest (in <i>per cent</i> )	11
6.		Interest on amount (upto November 2018)	16.05
7.		Interest on amount recovered <i>i.e.</i> on ₹123.07 crore (from December 2018 to March 2019)	5.25
8.		Interest on outstanding amount of ₹21.15 crore (April 2019 to March 2023)	9.31
9.		<b>Total interest due (as of March 2023)</b>	<b>30.61</b>

Source: Compiled by Audit based on records of the Water Resources Department

The Government replied (June 2024) that sanction of special imprest was aimed at facilitating project continuity and to avoid delays that arise from financial constraints faced by the contract agency.

During the Exit Conference, the Government stated (November 2024) that financial assistance was extended to the Contractor in the interest of work. The project was at critical stage and as the financial condition of the Contractor was not good, it was felt to financially support the Contractor. If work is stopped at that juncture, a fresh tender needs to be called for, which

<sup>115</sup> 01/2012-13 dated 02.03.2013 with M/s TRANSSTROY (Main Dam agreement)

would increase the cost of the project due to the application of new SSR. Considering all this, financial assistance was given by way of special imprest or advance to contractor.

The reply is not acceptable. As per the terms of the agreement, mobilisation of finances and material is the responsibility of the contract agency. It is pertinent to mention that, despite provisioning of funds through special imprest, the contract agency could not gear-up the work resulting in termination of the contract and subsequent award of work to another agency. Hence, the advancement of interest free imprest, which is of the same nature as that of mobilisation advance, that too without establishing any secured means of recovery, resulted in an undue advantage of ₹30.61 crore by way of interest to the contract agency.

**(b) Provisioning of Revolving Fund to a firm**

For the work “Construction of Main Dam Package” agreement was concluded (February 2018) with a second contract agency<sup>116</sup> for ₹1,244.36 crore with a condition to complete the work by August 2019. Special Conditions (Sl. No. 15 of Bill of Quantities) of agreement stipulate that the contract agency shall itself procure the steel, cement, bitumen, blasting material, sand, metals, soils, *etc.*, and such other material required for the work well in advance. The contract agency has to bear the cost of material along with conveyance.

Audit noticed that contrary to the above agreement condition, Government had sanctioned (March 2018) Special Revolving Fund<sup>117</sup> of ₹20.00 crore which was subsequently increased (November 2018) to ₹50.00 crore<sup>118</sup>, for procurement of diesel, subject to the condition that the amount shall be recovered in lumpsum from the immediate running account bill paid to the contract agency. However, the above order was silent regarding levy of interest on the advanced amount made through the Special Revolving Fund.

The contract agency utilised (July 2019) an amount of ₹26 crore out of the Fund and the same was recovered from the bills paid. Based on the interest rate (11 *per cent*) as applicable on mobilisation advance, the interest on the amounts released to contract agency worked out to be ₹2.84 crore (detailed calculation at *Appendix 3.2*) to the date of last payment (July 2019).

The Government replied (June 2024) that the Revolving Fund was established to support the contract agency in managing cash flow and uninterrupted progress of work. Further, it was replied that there were no government guidelines or directives that mandate the imposition of interest on such advances.

The reply is not acceptable. The conditions of the agreement stipulated that it was the responsibility of the contract agency to procure materials at its own cost. Hence, advancing interest free Revolving Fund which is of the same nature as mobilisation advance to the agency, resulted in undue advantage of ₹2.84 crore to the contract agency.

***Recommendation 3.3: The State Government should ensure that advances are paid to the contract agencies in line with the existing rules and regulations. Any financial support extended to contract agencies should include a reasonable interest component and backed by supporting BGs for the amount advanced.***

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<sup>116</sup> M/s Navayuga Engineering Company Limited

<sup>117</sup> Memo No. 985324/Proj.I/2018-3 dated 22.03.2018

<sup>118</sup> Memo No. ICD01-MJIROIC28/30/2018-PROJECTS-I-WRD dated 19.11.2018

**(c) Liabilities more than assets**

Contract conditions (Clause 42.2.3) of agreement stipulate that any recovery or recoveries advised by the Government/Department, due to non-fulfillment of conditions of contract, shall be recovered from any bill or deposits of the contract agency.

As the work (after incurring an expenditure of ₹1,755.05 crore) could not be completed by the contract agency despite issue of several notices, the Department terminated<sup>119</sup> (October 2019) the contract under Clause 55<sup>120</sup> of the agreement and Clause 61<sup>121</sup> of PS to APDSS.

The Chief Engineer, PIP addressed<sup>122</sup> (December 2020) the Government and submitted a detailed report on settling the accounts of the contract agency. As per the report, the assets (encashed Bank Guarantees, Retention money, bills pending for payment, *etc.*) and liabilities<sup>123</sup>, pertaining to the contract agency, lying with the Government were ₹842.03 crore and ₹848.01 crore respectively as detailed in *Appendix 3.3*. The net liability of the contract agency to the Government was ₹5.98 crore.

Apart from the above, the Department proposed a penalty of ₹269.29 crore, as per section 60 (C) of PS to APDSS (limited to five *per cent* on contract value of ₹5,385.91 crore), an amount of ₹26.02 crore is payable by the contract agency to Andhra Pradesh Eastern Power Distribution Corporation Limited towards ‘Power consumed’ and an amount of ₹30.61 crore recoverable as interest on Special Imprest (commented in Para No 3.1.3.2 (a)). Summing up the above, the Department would be at loss by ₹331.90 crore (₹5.98 crore + ₹269.29 crore + ₹26.02 crore + ₹30.61 crore), if not recovered from the contract agency.

It is pertinent to mention that Canara Bank have filed<sup>124</sup> (October 2018) an insolvency petition in National Company Law Tribunal (NCLT) Hyderabad bench seeking directions to initiate corporate insolvency resolution process against the partner<sup>125</sup> of contract agency. It was also proposed by the Department to file an appropriate suit with NCLT and recover the amount due. However, the Department has neither recovered the amount of ₹331.90 crore nor filed any suit with NCLT for recovery of amounts due from the contract agency.

The Government replied (June 2024) that the liabilities to the vendors are not actual liabilities but projected liabilities. Also, as there was no provision for recovery of interest of imprest in the Government Order (G.O.RT.No.253 dated 29.05.2017), after deducting these two items, the difference in assets and liabilities would be meagre. It was also replied that the relaxation of the penalty of five *per cent* of contract value as per clause 60 (C) of PS to APDSS is under consideration of the Government.

<sup>119</sup> Lr. No. CE/PIPHW Unit/Polavaram/DCE-II/OT-I/AEE-1/529M dated 30.10.2019

<sup>120</sup> termination to be governed by PS to APDSS

<sup>121</sup> under Clause 61 of PS to APDSS: If the contractor suspends / sub-let the work, the EE shall have power to give notice in writing to the contractor requiring that the works be proceeded with in accordance with the terms of the contract. If the contractor shall fail, for 14 days after such notice has been given, Government may enter upon and take possession of the works and site, and of all such plant and materials thereon, for the purpose of completing the work

<sup>122</sup> Lr. No. CE/PIP/DCE/OT.3/AEE.1/F20, Vol.14 dated 29.12.2020

<sup>123</sup> imprest, electricity charges payable by agency, liabilities to other agencies, *etc.*

<sup>124</sup> under Section 7 of Insolvency and Bankruptcy Code, 2016

<sup>125</sup> M/s TRANSSTROY

The reply is not acceptable, as the relaxation of penalty to be levied as per clause 60 (C) of PS to APDSS and advancing of interest free financial assistance would set an unwarranted precedence to all the contract agencies, which would have a cascading effect on the works in progress in the State.

### 3.1.3.3 Avoidable liability towards expenditure on treatment of collapsed tunnel

The work “Construction of right side connectivities (Package 64: Tunnel of 880m length)” was awarded (March 2005/December 2021) to a contract agency<sup>126</sup> at a cost of ₹116.86 crore with a condition to complete the work by December 2023. Scrutiny of the records revealed the following.

During construction stage of twin tunnels of right connectivities, the Geological Survey of India (GSI) submitted (2010) geo-technical investigation report and declared the quality of ‘rock class’ in different<sup>127</sup> chainages of Left and Right<sup>128</sup> Tunnel as ‘Poor’. Further, GSI report made certain recommendations as detailed below:

- To avoid failure by excessive deformation, it was recommended to determine appropriate design of tunnel support such that it is adequate to withstand pressure, all along the entire circumference of the surface of the tunnel.
- For the shear zones (poor rock mass), it was recommended to remove all the loose/crushed rock and soft gouge material, and back fill with concrete. Subsequently, steel mesh with shotcrete and inclined bolting may be provided.

Audit noticed that no such precautionary measures were taken to ensure the strength of tunnel at the above-mentioned chainages. As a result, the tunnel collapsed (June 2021) in the left tunnel between chainage 70 m to 90 m which was classified as weak zone by GSI. A provision of ₹63.18 lakh was made (September 2021) for treatment of collapsed tunnel in the estimates of the work “Widening of Twin Tunnels”.

Had the Department taken adequate steps to strengthen the weak stretches as pointed out by GSI before or during the execution of work, the collapse could have been avoided. Lack of action from the Department resulted in avoidable liability. As of March 2023, no expenditure was incurred towards the treatment of the collapsed tunnel.

The Government while confirming the tunnel collapse, replied (June 2024) that the amount of ₹63.18 lakh provided in the estimates is not meant for treatment of the collapsed portion, but for filling up the loose pockets in the heading portion of the tunnel.

The reply is not acceptable, as the estimates clearly states that the amount was provided ‘for treatment of collapsed portions’.

### 3.1.3.4 Avoidable expenditure towards rectification works

As per bid condition number 17, the total contract value shall include the work of any kind necessary for satisfactory construction, completion and maintenance of works. The contract value shall include compliance with all the general conditions of contract, all materials, plant, equipment, provision of proper and sufficient protective works, diversions, *etc.* Further,

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<sup>126</sup> M/s MAX-INFRA Private Limited, Hyderabad

<sup>127</sup> 18 m to 46 m, 70 m to 90 m, 424 m to 444 m, 470 m to 505 m

<sup>128</sup> 66m to 100m, 110m to 124m, 130m to 140m

condition 18 stipulates that ‘the works executed by the contractor shall be maintained at the contractor’s risk and shall arrange for own insurance against floods, fire and other usual risks during the contract period’. As such, during the contract period, it shall be the responsibility of the contractor to protect the executed work at no extra cost.

The balance Main Dam package work was awarded (November 2019) to a third contract agency<sup>129</sup>, on reverse tendering basis, at a cost of ₹1,548.12 crore with a stipulation to complete the work in 24 months (November 2021) after pre-closure of work (July 2019) of second contract agency<sup>130</sup>.

Due to time gap<sup>131</sup> between awarding of balance work (between August 2019 and November 2019) and mobilisation of work force/commencement of work by the new contract agency, the following avoidable rectification works were executed in the work site by third agency which were not part of the contract.

(i) During the monsoon season (July to September 2019), the Spillway and stilling basin were filled with water. To commence the work, the third contract agency had taken up the work ‘Dewatering in Stilling Basin and Spill Channel’<sup>132</sup> during December 2019/January 2020 and an amount of ₹8.30 crore was paid (July 2022) to the contract agency.

(ii) After dewatering, as the entire work area was filled with slushy/marshy soil due to stagnation of water for a long period, the third contract agency cleared the slush<sup>133</sup> and ₹8.98 crore was paid (July 2022) to the contract agency.

Audit noticed that the work awarded to the second contract agency was closed haphazardly without foresight for protection of works already executed that would be exposed to floods in the ensuing monsoon season. Had the second contract agency continued till completion of monsoon season, the additional expenditure of ₹17.28 crore incurred towards, dewatering and removal of slushy soil accumulated during monsoon could have been avoided as the same has to be borne by the contract agency as a part of the contract condition.

The Government replied (June 2024) that as dewatering and removal of slush was essential to execute the balance works, the new contract agency has undertaken the work and payments were made.

Thus, imprudent decision to close the work awarded to the second contractor agency before awarding the work to another agency resulted in further extra expenditure of ₹17.28 crore towards the de-watering and slush removal, disregarding the agreement clause that protection of executed works was the responsibility of the contract agency.

### 3.1.4 Quality Control

The regular day-to-day quality control checks are carried out by the Quality Control (QC) Department of GoAP as per QC manual of Irrigation Department.

<sup>129</sup> M/s Megha Engineering Infrastructure Limited

<sup>130</sup> M/s Navayuga Engineering Company Limited

<sup>131</sup> delay of four months, which was flood season of the river

<sup>132</sup> up to Ch 356.00 m and Spill Channel from Ch 356 m to Ch 2,920 m with 20 HP diesel pump

<sup>133</sup> ‘Excavation & Removal of slushy/marshy silt in the Spill Channel and stilling basin of Spillway deposited over & above the excavated levels of before floods 2019’

### 3.1.4.1 Issuance of quality control certificates

As per QC Manual, QC wing shall periodically inspect the work and conduct the required tests. The deficiency found, if any, pertaining to QC shall be brought to the notice of the concerned contract agency and construction division in the form of inspection note/report for its rectification. The construction divisions should submit compliance reports to the inspection notes after attending to the remarks offered by QC wing.

Audit noticed that compliance reports to 23 inspection notes<sup>134</sup> issued (March 2006 to April 2022) by QC wing were pending from construction divisions as detailed at **Appendix 3.4**. However, without compliance to the inspection notes, QC certificates were issued by QC division for allowing payment of bills to the contractors.

Similarly, scrutiny of records of Left Main Canal revealed that the Chief Engineer, Superintending Engineer and Executive Engineer of QC wing had conducted (March 2018 to February 2019) inspections on various occasions and issued inspection notes for compliance by the construction divisions. However, compliance reports to four inspection notes, issued by QC wing, were pending from construction divisions as detailed in **Table 3.5**.

**Table 3.5: Details of pending quality control remarks**

SI. No.	Reference to Inspection Notes & date	Construction Division	Name of work	Status
<b>Superintending Engineer, QC, Vigilance &amp; Enforcement Circle, Dowlaiswaram</b>				
1.	236M, 17.05.2018	PIPLMC, Division No.2, Dowlaiswaram	NH Crossing at Km 33.559	Pending
2.	65M, 06.02.2019	PIPLMC, Division No.1, Dowlaiswaram	Package-1 A	Pending
3.	108M, 16.03.2018	PIPLMC, Division No.1, Dowlaiswaram	Package-1	Pending
<b>Executive Engineer, QC Division, Dowlaiswaram</b>				
4.	41M, 18.01.2019	EE, PIPLMC, Division No.4, Tuni	Package-4 A	Pending

Source: Records of the Department

Pending receipt of Compliance Reports to the inspection notes, in contravention to the rules, the QC division issued QC certificates for payment of bills. The works were allowed to continue by the construction divisions without reporting of compliance to the inspection notes.

The Government stated (November 2024) that compliance reports to inspection notes pertaining to Headworks were submitted to QC wing.

The Government did not produce documentary evidence in support of submission of compliance reports, hence, correctness of submission of compliance reports could not be verified.

## 3.2 Construction of Powerhouse

Polavaram Hydro Electric Project (PHEP), as a part of Polavaram Multi-Purpose Project, was proposed by GoAP across river Godavari at Anguluru Village in Devipatnam Mandal of erstwhile East Godavari District, with an installed power generation capacity of 960 MW (12

<sup>134</sup> Chief Engineer:2, Superintending Engineer: 11 and Executive Engineer:10

turbines of 80 MW each). The Central Electricity Authority (CEA), Ministry of Power, Government of India has accorded (February 2012) Techno-Economic Concurrence to PHEP at an estimated cost of ₹3,013.68 crore (at 2010-11 Price Level).

Construction of Powerhouse involves civil, electrical and mechanical works for generation of power and connecting to power grid. Civil works involve preparation of estimate, obtaining administrative and technical sanctions, tendering, awarding and execution of works. The technical component of the Powerhouse is being executed by APGENCO.



**Picture 3.6 & 3.7: Construction of Polavaram Hydro Electric Project**

The salient features of the Powerhouse is depicted in *Chart-3.1*.

**Chart 3.1: Salient Feature of Powerhouse**

**(a) Components**

Capacity	• 12 x 80 MW= 960 MW
Type of Turbine	• Vertical Kaplan adjustable blade
Design head	• 27 m
Minimum Draw Down Level	• 41.15 m
Normal Total Water Level (12 units discharge)	• 18.20 m
Discharge per Unit	• 331 cumecs
Cost of Electro-mechanical Works	• ₹2,613.36 crore
Cost of Civil Works	• ₹1,511.28 crore
Total Project Cost	• ₹4,124.64 crore (2017-18 Price level)
Designed Energy of operation	• 2,308.41 Million Units (MU) in the first year and 431.27 MU in final (35th) year
Levelised Tariff	• 461 paise/Kwh (Kilo Watt hour)

The major components of Powerhouse were divided into civil structures and electro-mechanical (E&M) works as given in *Table 3.6*.

**Table 3.6: Showing the civil and electro-mechanical works**

Sl. No.	Component	Description
<b>I</b>	<b>Civil Structures</b>	
1.	Approach Channel to Intake structure	A channel upstream of intake structure to take the water to the intake and trash rack structures.
2.	Intake structure with Trash rack and intake gates	These structures lead the water to 12 head race tunnels.
3.	Head race Tunnels	Flow of water is regulated through intake gates.
4.	Powerhouse pit	Designed to accommodate 12 generating units.
5.	Tail race pool and channel	To convey the tail water back to the main course of the river. An approach road to Powerhouse pit and switch yard is proposed on the left bank of this channel with 10 m width at EL (+) 45.72 m.
<b>II</b>	<b>Electro-Mechanical Works</b>	Turbines, Generators, Transformers and Switch Yard Equipment.

Source: Records of the Department

**(b) Status of Polavaram Hydro Electric Project**

The Techno-Economic Concurrence (TEC) was received (February 2012) from CEA for an amount of ₹3,013.68 crore for power component and the target for commissioning the power project was March 2018. Accordingly, the civil works contract was awarded (March 2013) to a contract agency<sup>135</sup> and E&M works contract was awarded (December 2017) to another contract agency<sup>136</sup>. The agreement for civil works was terminated and was entrusted (February 2018) to the contract agency undertaking the E&M works. Subsequently, both the agreements for Civil and E&M works were cancelled (August 2019) and were entrusted (November 2019) to another contract agency<sup>137</sup>. The TEC was revised to ₹4,124.64 crore as per 2017-18 price level. The cost was further revised (November 2016) to ₹4,956.39 crore and then to ₹5,338.95 crore with revised target date for commissioning of the project as January 2026. The total expenditure incurred on the project so far (March 2023) was ₹884.89 crore. The physical and financial progress of civil works was registered at 12 and 17 *per cent* respectively.

**3.2.1 Execution of works by first contract agency**

Construction of PHEP (Electro-mechanical component) was awarded (December 2017) to a contract agency<sup>138</sup> in EPC mode for a contract price of ₹3,220.28 crore. The time for completion of the project was 58 months from zero date (January 2018) *i.e.*, up to November 2023. The contract agency was paid (January 2018 to August 2018) advances worth ₹753.47 crore (inclusive of Goods and Services Tax (GST)) against Bank Guarantees (validity between September 2020 to May 2023) submitted worth ₹643.55 crore<sup>139</sup>:

- Mobilisation advance (10 *per cent* of contract value): ₹380 crore (including GST) of ₹57.97 crore)
- Interest free Model test payment (10 *per cent* of the cost of turbine, *etc.*): ₹145.47 crore (including GST of ₹22.19 crore) and

<sup>135</sup> M/s TRANSSTROY

<sup>136</sup> M/s Navayuga Engineering Company Limited

<sup>137</sup> M/s Megha Engineering & Infrastructure Limited

<sup>138</sup> M/s Navayuga Engineering Company Limited

<sup>139</sup> Mobilisation Advance: ₹322.02 crore + Milestone Advance: ₹193.22 crore + Model Test: ₹128.30 crore

- Interest bearing Milestone advance payments (six *per cent* of the contract value): ₹228 crore (including GST of ₹34.78 crore).

However, in August 2019, the contract was terminated and the work was awarded (November 2019) to a new contract agency<sup>140</sup>. Despite release of advance payments, the original contract agency had executed works<sup>141</sup> worth ₹1.70 crore only.

Scrutiny of records revealed the following:

### **3.2.1.1 Incorrect inclusion of clause for payment of interest free advance in the agreement**

As per Payment terms II (payment for E&M works), clause 6 (iii) of the agreement entered into with the contract agency, “After successful completion of Model test and approval of Model test reports, 10 *per cent* of the cost of ‘Turbine, Generator and their auxiliaries’ as per the approved billing break-up would be paid against a Bank Guarantee (BG) for equal amount valid for 40 months from the date of advance payment against Model test”.

An amount of ₹145.47 crore towards interest free advance was paid to the contract agency upon submission of successful completion of Model Test Report.

Audit noticed that the interest free advance payment was in contravention to the payment terms as mentioned in the agreement. Any change in the agreement terms requires approval of the APGENCO Board or GoAP. However, no such approval was obtained, which led to a loss of interest of ₹19.14 crore<sup>142</sup>.

The APGENCO replied (July 2024) that the advance clause was incorporated as per the request of the contract agency to ensure cash flow to the agency. The Government stated (November 2024) that an amount of ₹145.47 crore was paid as interest free advance against successful completion of model test, as per the agreement clause 6 (Payment terms II) incorporated at the request of the bidders participated in the pre-bid meeting.

The reply is not acceptable. The inclusion of clause for payment of interest free advance on successful completion of Model Test, in the agreement is against the laid down rules of the Government and was not approved either by the Board or GoAP, resulting in undue advantage of ₹145.47 crore to the contract agency.

### **3.2.1.2 Acceptance of bank guarantees with short validity period**

As per clause 6 (V) of EPC contract agreement (December 2017) between APGENCO and contract agency<sup>143</sup>, if requisitioned by the firm, two additional milestone advance payments (interest<sup>144</sup> bearing) would be made against suitable BG for equal amounts. This additional milestone advance would be paid for Design & Engineering (not exceeding six *per cent* of the contract price) and placement of order for major equipment (not exceeding 10 *per cent* of contract price).

The advance and interest are to be recovered from the running account bills on a pro-rata basis. The BGs shall be valid till the completion of the contract or till the recovery of the complete

<sup>140</sup> M/s Megha Engineering & Infrastructure Limited

<sup>141</sup> towards erection of temporary office at project site

<sup>142</sup> 12 *per cent* interest of ₹100 crore from 30.06.2018 to 14.08.2019 and 12 *per cent* interest on ₹45.47 crore from 01.08.2018 to 14.08.2019

<sup>143</sup> M/s Navayuga Engineering Company Limited

<sup>144</sup> rate of interest one *per cent* over & above the borrowing rate of APGENCO, which is 11 *per cent* at present

advance amount with interest, whichever is earlier. As such, BG should be valid upto May 2024 (including claim period of six months beyond scheduled date of completion of contract).

Audit noticed that instead of submitting BGs having validity up to May 2024, the contract agency had submitted BGs worth ₹193.22 crore and ₹128.30 crore with validity up to March 2021 and April 2022 respectively. Meanwhile, the contract was terminated by the Government (August 2019) and the contract agency approached (November 2019) Hon'ble High Court of Andhra Pradesh against the termination. The petition of the contract agency was disposed (January 2021) by the Hon'ble High Court based on the joint Memorandum of Understanding submitted by both the parties involved. However, due to inaction of APGENCO, BGs worth ₹321.52 crore expired without revalidation.

Scrutiny of records revealed that APGENCO requested (December 2020/January 2021) the Banks and the firm to extend the validity of BGs, however, the banks did not honour the request. Thus, APGENCO could neither encash the BGs nor recover the amount from the contract agency, thereby incurring a loss of ₹321.52 crore.

The Government replied (July 2024) that as per the sanction terms, BGs can be issued only for 36 months and after that the BGs would be extended for another 36 months. Further, regarding the non-encashment of BGs, it was stated that after taking the decision of termination of contract and one day before termination of the actual contract, the BGs were submitted for encashment (August 2019). However, the Banks did not honour the request due to the injunction order issued by the VIII Additional District Judge, Vijayawada. As APGENCO has tendered the claim within the validity period, the responsibility of honouring the claim lie with the Bank. It was further replied that the Hon'ble High Court of Andhra Pradesh ordered that all disputes are to be adjudicated. As such, the claim pertaining to refunds of Mobilisation Advance alongwith interest were presented before the arbitration tribunal and final award is awaited.

The reply stating that BGs are issued for a maximum validity of 36 months is not acceptable, as Reserve Bank of India guidelines (clause 1.1.3 of 02 July 2007) state that BGs can be issued for a maximum period of 10 years and can be claimed within 12 months over and above the validity period. Thus, ignorance on part of the APGENCO officials with respect to guidelines issued by the RBI led to locking of funds to the tune of ₹321.52 crore besides loss of interest and further legal disputes in claiming the amount.

During the Exit Conference, the Government accepted (November 2024) the audit observation and replied that the contract agency agreed to validate BGs upto completion of the work and the Defect Liability Period. However, as the contract was terminated prior to completion of work, the BGs were produced to the Bank for encashment within the validity period. As such, it is the obligation of the Bank to honour the request of the Department. After finalisation of the arbitration pending in this regard, the issue would be solved within one or two months.

### **3.2.1.3 Delay in claim for goods and service tax paid**

Section 54 (1) of CGST Act, 2017 stipulate that, "Any person claiming refund of any tax and interest, if any, paid on such tax or any other amount paid, may make an application before the expiry of two years from the relevant date (the date of payment of tax) in such form and manner as may be prescribed."

Further, as per the sub-section 8(c) of Section 54 of CGST Act, 2017, the refundable amount shall, instead of being credited to the Fund, be paid to the applicant, if such amount is relatable to refund of tax paid on a supply which is not provided, either wholly or partially, and for which invoice has not been issued, or where a refund voucher has been issued.

Audit noticed that APGENCO had paid advances worth ₹753.47 crore including GST of ₹114.94 crore<sup>145</sup> to the contract agency<sup>146</sup>. The contract was finally terminated in August 2019. As the services were not obtained from the contract agency, refund for GST can be claimed by the agency as per provisions of CGST Act, 2017 before the expiry of two years from the payment of GST. The APGENCO requested (December 2019) the contract agency that a credit note for sum of advance and GST amounts be issued immediately to APGENCO. However, the contract agency had not issued credit note to APGENCO till March 2023 for ₹114.94 crore. Further, the Department reported that contract agency had submitted APGENCO, the proof of payment of GST to tax authorities. However, the same was not produced to audit.

The Government replied (July 2024) that as per Explanation 2(d) to Section 54 of GST Act, the tax becomes refundable within two years from the date of judgement/decreed/order/direction of the Appellate Authority. As the issue is before the Arbitration Tribunal, the contract agency is legally liable to repay the advance amount alongwith GST.

During the Exit Conference, the Government stated (November 2024) that the APGENCO has approached the CGST authorities for refund of GST paid. However, due to arbitration the refund was not honoured. After completion of the arbitration, the refund claim would be submitted within the mandatory two year period.

### **3.2.2 Execution of works by second contract agency**

The second contract agency<sup>147</sup> has quoted an amount of ₹4,359.12 crore (12.60 *per cent* less than Estimated Contract Value of ₹4,987.55 crore) for the combined tender of Civil and E&M works of balance works. The value of E&M works was ₹2,810.88 crore.

#### **3.2.2.1 Sanction of interest free advance**

Clause 4.1 of the General Conditions of the Contract stipulate that the contractor shall supply the goods and/or perform or cause to be performed all work and services required in connection with the work. The above clause of the agreement was amended (November 2021) by APGENCO under Amendment No.2, which facilitates payment of advance to the contractor on the material bought to site.

Audit noticed that the contract agency was paid (December 2021 to October 2022) an amount of ₹30.86 crore as advance for procurement of steel (Structural and Reinforced). The contract agency had not drawn any mobilisation advance which attracts 12 *per cent* interest. However, APGENCO had facilitated interest free advance in the form of material advance resulting in undue advantage to the contract agency. Due to the above payment of advance to the contract agency by amending agreement clauses after tender, APGENCO had favoured the contract

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<sup>145</sup> January 2018: ₹57.97 crore, March 2018: ₹34.78 crore, June/August 2018: ₹22.19 crore

<sup>146</sup> M/s. Navayuga Engineering Company Limited

<sup>147</sup> M/s Megha Engineering & Infrastructure Limited

agency and also sustained a loss of ₹1.10 crore (December 2021 to November 2022) in the form of interest as shown in **Appendix 3.5**.

The Government replied (August 2024) that as per the terms of contract, the contract agency has to submit Price breakup schedule for payment of bills. The Price breakup schedule submitted by the contract agency for reinforcement steel was split into two parts, *i.e.* supply of steel and cutting/ bending/ placing, *etc.*, instead of 'Finished item of work including cost of material', which was approved by the Board. As such, the payment was made to the contract agency on receipt of the material at site.

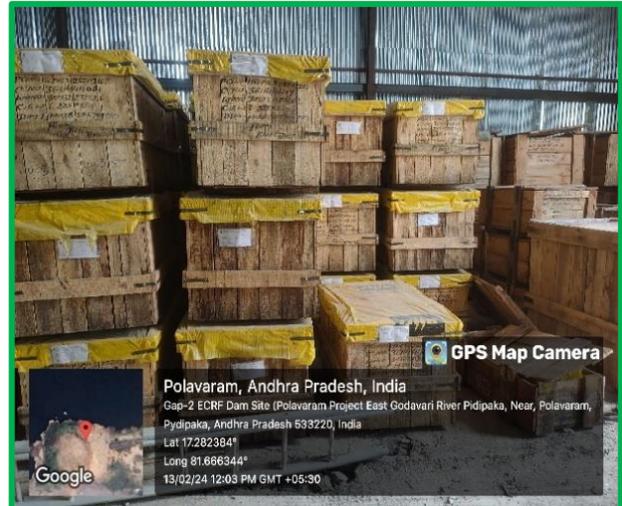
During the Exit Conference, the Government stated (November 2024) that the payments were made upon receipt of material at site, which was as per the agreement clauses only, and hence it is not an interest free advance. Regarding changes made in the agreement clauses after entering the agreement (being against the laid down rules), Government replied that the clauses were inserted upon request of the contract agency, for mobilisation of funds.

The reply is not acceptable, as the payment is to be made for finished items of work and not for the material brought to site, which tantamount to mobilisation advance. The approval of price breakup schedule (November 2021) by APGENCO as submitted by the contract agency duly splitting the items of work, is not in order. This resulted in undue advantage to the contract agency by way of interest free advance.

### 3.2.3 Advance procurement of Electro-Mechanical components

As per agreement condition No. 11.1.1 (C), entered (March 2021) into with the contract agency<sup>148</sup> for a contract price of ₹2,810.88 crore, the schedule of supply of E&M material/equipment shall be planned in such a way that the material shall be delivered to site not before six months of its requirement for erection as per approved schedule. In case, if any material/equipment is supplied too early, (*i.e.*, before six months of its requirement as per schedule) the process of bills of such material/equipment shall be initiated by purchaser only before six months of its requirement as per schedule.

For execution of Polavaram Hydel Electric Project, APGENCO obtained a term loan of ₹3,965.11 crore with an interest rate of 11 *per cent* per annum from Rural Electrification Corporation Limited towards funding the debt portion of PHEP costing ₹4,956.39 crore.



**Picture 3.8: Electro-Mechanical component lying idle**

<sup>148</sup> M/s. Megha Engineering & Infrastructure Limited

As per approved PHEP Level 2 schedule (showing the items to be procured and phase-wise erection), E&M material/equipment were procured by making payments to supplier and issued to the site for erection.

Audit noticed that E&M material/items/components worth ₹41.26 crore were procured (June 2022 to June 2023) six months prior to requirement and were lying idle without installation for the period ranging between 28 and 428 days in excess of six months.



**Picture 3.9: Electro-Mechanical components lying idle at site**

Thus, improper planning to procure the items without assessing the time required to complete the other components not only resulted in blockage of funds to APGENCO and idling of E&M components, but also led to additional financial burden of ₹1.90 crore (*as detailed in Appendix 3.6*) towards interest (as of February 2024) for the material brought to the site.

The Government replied (August 2024) that as per clause 8.1 and 8.2 of the contract agreement, the existing approved schedule for commissioning units 1, 2, 3 is 31 July 2024 and thereafter two months for each unit and hence for unit 12, it is 31 January 2026. It was further replied that as per clause 8.4.1 of the contract, Liquidated Damages (LDs) are applicable for delayed commissioning of the units at the rate of 0.5 *per cent* for delay of every week subjected to a maximum of 10 *per cent* of the contract value including taxes.



**Picture 3.10: Electro-Mechanical material lying idle at site**

During the Exit Conference, the Government accepted (November 2024) the observation and replied that the designs of the Hydroelectric project were changed. As such, Bharat Heavy Electricals Limited has supplied some of the equipment/ material in advance and the turbines are yet to be supplied.

The reply is not acceptable, as the schedule to procure the material has to be planned in such a manner that there should not be any idling of equipment. Further, the payments were made to the contract agency without their actual utilisation. This resulted in loss of ₹1.90 crore towards interest on the amount paid to the agency.

***Recommendation 3.4: The Electromechanical material be procured in consonance with the execution of work and as per the actual requirement, as the PHEP construction is funded through an interest-bearing loan component.***



# Chapter IV

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## **Construction of Canals**

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SP @ Km 52.050



## Chapter IV Construction of Canals

The change in RMC alignment after entrustment of work resulted in wasteful expenditure for the work already executed. Boosting up of unit rate for earthwork excavation in the Internal Benchmark resulted in additional financial burden.

Increase in quantities/cost and delay in execution of Left Main Canal (LMC) works resulted in non-acceptance of revised quantities by Revised Cost Committee of GoI, thereby imposing component-wise restriction. Due to slow progress in the execution of works by the contract agencies, the Department had pre-closed four package works.

Construction of under tunnel in LMC could not be taken up as the land required for execution of work was acquired belatedly. Delay in decision by Department to either award the works to National Highway Authority of India or to the contract agencies led to additional financial burden. Government had accorded additional sanction for increase in number of structures for LMC without change in the basic project parameters.

Detailed Project Report for distributary network for both the canals was yet to be finalised, due to which the second Revised Cost Estimate was not approved by GoI. There was instance of non-recovery of extra cost from the original contract agency for completion of balance work at additional cost as per existing rules. There were huge quantities of spoil earth lying at works site without proper accountal in the specified register/form and instances of theft of spoil earth. The unilateral decision of Revenue Authorities to take back the alienated project land (without the consent of Water Resources Department) designated for disposal of spoil earth would affect the disposal process and in turn may create environmental & ecological problems/issues, which would attract penalties from NGT.

### 4.1 Introduction

The civil works of Polavaram Irrigation Project (PIP) includes construction of two main canals *i.e.*, Left Main Canal (LMC) and Right Main Canal (RMC) which takes off from the connectivities on either side of the dam. The canal systems are designed to meet the irrigation, drinking water and industrial water requirements of the envisaged districts and diversion of 80 Thousand Million Cubic feet (TMC) of water to Krishna River, through RMC, as per Godavari Water Distribution Tribunal (GWDT) Award. The components of LMC and RMC include earthwork excavation, construction of lining and structures.

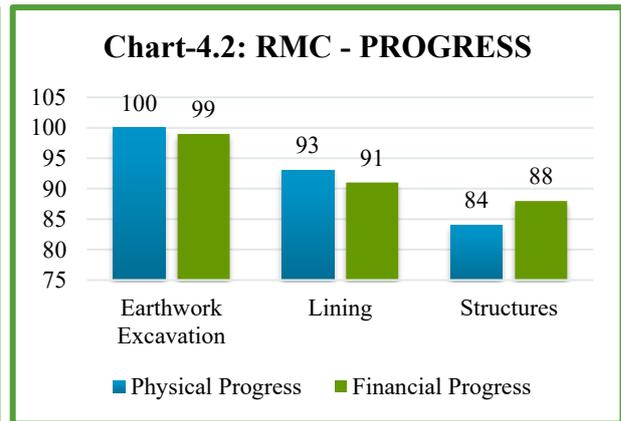
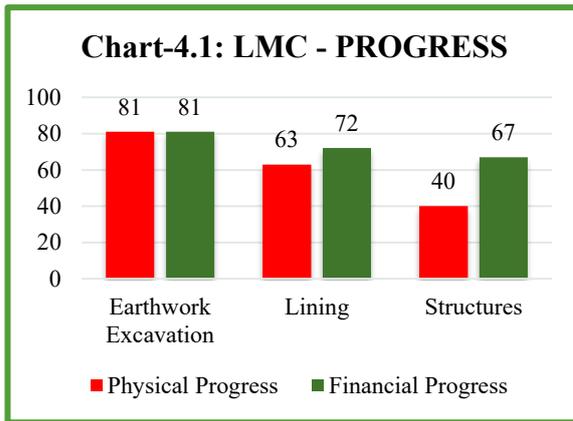
The RMC takes-off from the Head Regulator in the stilling basin and runs for a length of 178.81 Km crossing five major streams<sup>149</sup> and empties into Budameru Diversion Canal near Vijayawada city which joins Krishna River about eight kilometre (Km) upstream of Prakasam

<sup>149</sup> Kovvadakalava, Yerrakalava, Gunderu, Tammileru and Ramileru

Barrage. The RMC is a lined canal and is designed to irrigate 1.29 lakh hectare (3.20 lakh acres) of ayacut in upland areas of West Godavari and Krishna Districts.

The LMC takes off from the Nelakota subsidiary reservoir and runs for a length of 211.27 Km crossing through six major streams<sup>150</sup>. The LMC is a lined canal and is designed to irrigate 1.62 lakh hectare (four lakh acres) of ayacut in erstwhile East Godavari and Visakhapatnam Districts, besides supplying 23.44 TMC of water for industrial and drinking water needs in and around Visakhapatnam city.

As of March 2023, the physical and financial progress of works in LMC and RMC were as shown in **Chart 4.1 & 4.2**.



Source: As per information furnished by Department

## 4.2 Construction of Right Main Canal

The investigation for RMC alignment was carried out for the entire length of 178.81 Km at the time of preparation of DPR. As the canal crosses a number of valleys, in order to facilitate crossing of these valleys, different types of Cross Drainage (CD) works *viz.*, under tunnels, super passages, aqueducts, *etc.*, were proposed depending upon the site conditions. Detailed designs and cost curves were prepared (2004) for these structures and the cost of all the minor structures was arrived at and were approved by Chief Engineer (CE), Central Designs Organisation (CDO), GoAP.



Picture 4.1: Right Main Canal at KM 50

The RMC works commenced in the year 2005 with a target to complete in 24 months *i.e.*, by the year 2007. The works under RMC were divided into seven packages and awarded (October 2004) to various contract agencies under EPC contract at a total agreement value of ₹1,736.06 crore. Most of the works of all the seven packages were completed (except for canal lining of

<sup>150</sup> Sarada, Mamidivaka Gedda, Varaha, Thandava, Yerra, Buradakalva

12.95 Km and 41 structures) by the year 2016 at a cost of ₹1,730.68 crore (as detailed in *Appendix 4.1*).

#### **4.2.1 Execution of works of Right Main Canal**

Main components of RMC work involve earthwork excavation, lining and construction of structures. The earthwork excavation was completed (at a cost of ₹646.20 crore) for the entire length of the canal. However, even after incurring ₹666.57 crore towards lining of canal, lining for a length of 12.95 Km (176.20Km<sup>151</sup> – 163.25 Km) was yet to be completed. Out of 255 structures proposed, 214 structures were completed (₹591.92 crore) and balance 41 structures were yet to be completed, as of March 2024.

##### **4.2.1.1 Change in canal alignment after entrustment of work**

In the above-mentioned work, the initial alignment of RMC from Km 171.000 to Km 172.566 passes through Balerao Tank portion which provides water to an ayacut of 850 acres. Prior to pre-closure of work, the first contract agency had executed the earthwork excavation from Km 171.000 to Km 172.566 (as detailed in *Appendix 4.2*) and a payment of ₹4.32 crore (2.39 per cent of the agreement value of ₹180.70 crore) was made.

During execution of the canal works, the Department noticed that the carrying capacity of the canal would decrease with the current alignment. To mitigate the problem, the Technical Expert Committee visited (September 2015) the site and instructed (February 2016) to divert the canal alignment beyond Km 170.817 in the foreshore area of tank without Land Acquisition. As such, proposal for alternate alignment and designs, drawings and Hydraulic Particulars were approved by CE, CDO Hyderabad, duly detouring (a deviation from a direct course) the Balerao tank as online reservoir with regulators on downstream of the tank.

As the work was stopped by the first contract agency, the balance portion of work was entrusted to new contract agency<sup>152</sup>. The Government accorded (January 2017) approval for taking up the work<sup>153</sup> and agreement was concluded (March 2017) with contract agency on nomination basis for an amount of ₹15.48 crore and the work was completed.

Audit noticed that due to improper planning, a change in alignment was necessitated after execution of the canal work through Balerao tank. This resulted in re-working of the canal alignment and avoidable expenditure of ₹4.32 crore towards earthwork excavation already carried out from Km 171.000 to Km 172.566 by the first agency.

The Government replied (June 2024) that detouring Balerao tank with new alignment was done as per the recommendations of Technical Expert Committee to safeguard the interest of the ayacutdars under Balerao tank.

During the Exit Conference, the Government stated (November 2024) that the original alignment was on the downstream side of the tank and a heavy structure was to be constructed in the tank area which was objected by the villagers and villagers insisted to take away from

<sup>151</sup> though the length of canal is 178.81 Km, the lining is taken up for 176.20 Km

<sup>152</sup> M/s. BSCPL Infrastructure Limited

<sup>153</sup> Earthwork excavation embankment and construction of CM&CD works from Km156.500 to Km 174.000, change of alignment including excavation embankment lining CM&CD works from Km170.817 to Km 172.975 in upstream of Balerao tank

existing ayacut under Balerao tank. This was referred to the Technical Committee which recommended for change of alignment.

Thus, it is evident that improper planning led to change in alignment after execution of work, which resulted in wasteful expenditure of ₹4.32 crore.

#### 4.2.1.2 Incorrect adoption of unit rate

The work<sup>154</sup> of Package-6 was entrusted (2004) to a contract agency<sup>155</sup> at an agreement price of ₹196.74 crore (ECV: ₹206.77 crore) with a condition to complete the work by 2006.

In the abstract estimate (Internal Bench Mark (IBM)) of revised technical sanction (accorded in October 2004) the total quantity of earthwork to be executed was 98,78,844 cum at a cost of ₹55.46 crore. Of this, the unit rate (₹16.70 per cubic meter) for excavation of 3,57,485 cum of hard gravelly soil SS 20B by machinery was ₹0.60<sup>156</sup> crore.

However, during award of work (October 2004) to the contract agency, an amount of ₹5.96 crore was adopted for hard gravelly soil in the IBM instead of ₹0.60 crore. This resulted in boosting up of IBM by ₹5.36 crore (₹5.96 crore - ₹0.60 crore) for the item of work. As a result, the unit rate for total quantity of earthwork excavation was taken as ₹54.69 per cum instead of ₹49.35 cum, thereby boosting up the IBM as detailed in **Table 4.1**.

**Table 4.1: Unit rate calculation**

Total earthwork excavation (cum)	Amount adopted for Earthwork (EW) (₹ in crore)	Excess amount adopted for hard gravelly soil (₹ in crore)	Amount to be adopted for EW (₹ in crore)
(1)	(2)	(3)	(4) = (2)-(3)
98,78,844	55.46	5.36	50.10
Proportionate amount towards survey investigation of work {₹1.40 crore X ₹50.10 crore/₹206.77 crore}			0.34
Proportionate amount towards miscellaneous items {₹3.35 crore X ₹50.10 crore/₹206.77 crore}			0.81
Total Earthwork component at estimate rates			51.25
Unit rate as per estimate rate (₹51.25 crore/ 98,78,844 cum)			51.87
Tender discount at 4.85 per cent			2.52
Unit rate to be adopted (Unit rate to be adopted - Tender discount) per cum			49.35

Source: Calculated by Audit based on the information furnished by the Department

The boosting up of unit rate for earthwork excavation in the IBM resulted in additional financial burden while entering into supplementary agreements for item of works amounting to ₹2.62 crore as detailed below in **Table 4.2**.

<sup>154</sup> Investigation, design, preparation of Hydraulic particulars, estimates and execution of works of Polavaram Project Right Main Canal from Km 133.800 to Km 156.500 including construction of CM & CD works and lining of main canal

<sup>155</sup> M/s Progressive Constructions Limited, Hyderabad

<sup>156</sup> ₹16.70 per cubic meter X 3,57,485 cubic meter

**Table 4.2: Additional financial burden due to incorrect adoption of unit rate**

Supplementary Agreement Number	Earthwork quantity (in cum)	Rate adopted (in ₹ per cum)	Rate to be adopted (in ₹ per cum)	Excess rate adopted (in ₹ per cum)
(1)	(2)	(3)	(4)	(5) = (3)-(4)
5SE/ 2015-16 dated 24.06.2015	9,69,183.37	54.69	49.35	5.34
19SE/ 2015-16 dated 29.09.2015	39,39,921.44			
Total earthwork quantity	49,09,104.81			
<b>Undue financial burden = 49,09,104.81 cum X ₹ 5.34 per cum</b>				<b>2,62,14,620</b>

Source: Calculated by Audit based on the information furnished by the Department

Hence, failure to adopt correct unit rate in the IBM resulted in additional financial burden of ₹2.62 crore to exchequer towards total earthwork quantity of 49,09,104.81 cum executed so far.

The Government replied (November 2024) that due to typographical error, an amount of ₹5.96 crore was adopted in the IBM instead of ₹0.60 crore. Thus, the unit rates were finalised based on the quantities and amounts provided in IBM. The excess payment would be recovered in the final bill to be paid to the agency.

**Recommendation 4.1:** *The State Government should ensure robust design planning to minimise deviations during project execution and meticulously prepare estimates to avoid unnecessary payments.*

### 4.3 Construction of Left Main Canal

The works of LMC were divided into eight packages and were taken up in the year 2005 with a target to complete in 24 months *i.e.*, by the year 2007. The works were awarded (between March 2005 and February 2019) to various contract agencies under EPC contract system at an agreement value of ₹2,233.34 crore. All the package works remained incomplete (except package 2), as of March 2023, even after a lapse of 17 years despite incurring ₹2,076.10 crore (as detailed in **Appendix 4.3**). The execution of LMC works was delayed due to various reasons such as delay in LA, delay in entrustment of highway crossings, delay in approval of designs, frequent change in contract agencies due to slow progress of work, insolvency petitions filed by contract agencies in National Company Law Tribunal (NCLT), *etc.*

Out of total length of 211.27 Km of LMC, the earthwork excavation<sup>157</sup> was completed for a length of 172.15 Km at a cost of ₹506.57 crore leaving a balance length of 39.12 Km. Out of 209.99 Km of lining<sup>158</sup> proposed, only a length of 131.98 Km was completed, at a cost of ₹414.77 crore, leaving a balance length of 78.01 Km. Out of 451 structures proposed, 181 were completed at a cost of ₹761.82 crore, leaving a balance of 270 structures. The balance works in respect of LMC (Packages 1, 3, 5, 5A & 6A) which were deleted from the scope of original agencies are yet to be awarded and taken up.

<sup>157</sup> out of proposed 1,095.49 lakh cum, 1,006.23 lakh cum completed leaving a balance of 89.26 lakh cum

<sup>158</sup> out of proposed 15.07 lakh cum, 10.84 lakh cum completed leaving a balance of 4.23 lakh cum

### 4.3.1 Planning for construction of LMC

During preparation of DPR, investigation for LMC alignment was carried out for the original length of 181.50 Km. The alignment of the canal was marked on the topo sheets as per the Hydraulic Particulars (HP) prepared by the Department and cross sections were taken at every 0.20 Km on the base line.

As the canal crosses a number of valleys, to facilitate crossing of these valleys, different types of cross drainage works like under tunnels, super passages, aqueducts, etc., were proposed depending upon the site conditions. Site surveys were conducted for all major structures and typical minor structures at the rate of three structures for each type of structure. Detailed designs and cost curves were prepared (2004) for these structures and the cost of all the minor structures was arrived at and were approved by Chief Engineer (CE), Central Designs Organisation (CDO). The discharge capacities of LMC at head of canal system was 495.00 cumecs. Subsequently, the length of the canal was increased to 211.27 Km. Out of land requirement of 10,609.45 acres, land admeasuring 10,193.63 acres was acquired leaving a balance of 415.82 acres to be acquired.

#### 4.3.1.1 Improper assessment of revised quantities led to non-approval and stoppage of work

As per 2<sup>nd</sup> RCE, the quantities of earthwork, lining and number of structures have increased substantially in canal works, resulting in increase in cost from estimated amount of ₹2,373.00 crore to ₹4,202.69 crore. The Revised Cost Committee (RCC) felt that the quantities and cost of canals have already exceeded the limits as per 2013-14 Price Levels. Therefore, the cost of these items has been frozen at 2013-14 Price Level for the quantities as per approved 1<sup>st</sup> RCE of 2010-11.

Thus, the increase in quantities/cost and delay in execution of canal works resulted in non-acceptance of revised quantities by RCC, thereby imposing component-wise restrictions. Due to slow progress in the execution of works by the contract agencies, the Department had pre-closed four package works. Subsequently, CE, PIP submitted proposals to Government for awarding of balance works, as detailed in **Table 4.3**. However, as of March 2023, no decision has been taken by the Government in this regard.

**Table 4.3: Details of works pending before government for approval**

Package Number	Balance value of work to be done (₹ in crore)	Date of submission of proposals to Government	Status
1	69.23	November 2020	Works stopped
3	69.09	October 2020	
5 & 5A	150.02	November 2020	
6A	413.74	October 2021	
<b>Total</b>	<b>702.08</b>		

Source: Records of the Department

Delay in awarding the balance works (earthwork excavation, lining and structures) would lead to cost escalation, as the works are to be awarded as per the prevailing SSR. Further, not taking up the balance works would render the expenditure of ₹2,076.10 crore already incurred on LMC unfruitful as the intended purpose of supplying water through canal would not be achieved until these works were completed.

The Government replied (February 2023) that GoI was now reimbursing the bills based on DPR (2010-11PL) for canals. As of now, the expenditure under LMC exceeded the component-wise ceiling limit and hence, the expenditure is not being reimbursed by GoI since February 2021. It was further replied that GoAP had requested GoI to lift the ceiling limit which was not agreed to. GoAP attributed the delay in awarding LMC works to GoI, as GoI did not approve the 2<sup>nd</sup> RCE and also did not consider the request of GoAP for sanction of ad-hoc grant. It was further replied (November 2024) that tenders for the above packages were already called for and the work would be entrusted to the executing agencies soon.

The reply is not acceptable. It is the responsibility of the Department to assess all the components required for execution of canal correctly and prepare accurate estimation for the canal works. Due to the delay in Land Acquisition and inaccurate estimates prepared by the Department, there was a substantial increase in the quantities to be executed. Ineffective monitoring of the works by the Department after entrustment resulted in delayed execution by the original contract agencies. Further, the delay in entrustment and completion of the balance LMC works would render the objective of supplying water to the intended ayacut unachieved.

#### **4.3.1.2 Stoppage of work due to pendency of Land Acquisition and R&R**

The work “Conducting detailed investigation, preparation of HPs, design and engineering, preparation of estimates and execution of main canal, formation of banks including canal lining and construction of CM & CD works from Km 69.145 to Km 93.700 of LMC (Package No.4)” was awarded (2005) to a contract agency<sup>159</sup> for an amount of ₹209.70 crore with due date of completion as 2007. The work includes construction of one Under Tunnel at Km 73.168.

Audit noticed that:

- Though the work ‘Construction of one Under Tunnel at Km 73.168’ was entrusted in 2005, the work could not be taken up till to date (March 2023), as the land measuring 10.75 acres required for execution of work was acquired belatedly in August 2018.
- The Revenue Authorities acquired the land at a cost of ₹91.96 lakh. However, the actual possession of land could not be taken (as of March 2023), as the farmers were obstructing the work, demanding higher compensation and refusing to accept the compensation amount of ₹91.96 lakh. The amount was deposited with the Land Acquisition and Rehabilitation & Resettlement Authority (LARR Authority) and proceedings were pending. In view of the above dispute, extension of time for the work was sanctioned till June 2023.

The Government replied (June 2024) that as the landowners were demanding higher compensation, the compensation amount was deposited with the LARR Authority, Visakhapatnam in December 2018.

Thus, despite delayed acquisition of the required land, there was no progress of work due to non-settlement of payment of compensation issue with farmers. This has caused delay in completion of LMC works. Efforts have not been taken by the Government for early resolution of the issue.

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<sup>159</sup> M/s Sabir Dam Constructions

#### 4.3.1.3 Delayed decision in entrustment of works

The LMC crosses National Highway (NH) at 11<sup>160</sup> points through its passage. These 11 National Highway (NH) crossings works in LMC, were awarded along with the canal works to various contractors during 2004. Subsequently, Government instructed (2007) all the Engineering Departments to delete NH crossings from the scope of EPC contract and entrust the same to National Highways Authority of India (NHAI) for execution.

Audit noticed that despite government orders these NH crossings works were not entrusted to NHAI due to various reasons such as delay in approval of designs, incomplete LA for LMC and other clearances. Subsequently, after a lapse of 11 years, eight out of 11 (to be taken up at an estimated cost of ₹42.63 crore (SSR 2004-05)), were awarded (in 2018) to various contract agencies at an agreement value of ₹156.31 crore on lumpsum contract system, leaving a balance of three NH crossings yet to be awarded. The delayed decision to entrust works to contract agencies instead of NHAI resulted in cost escalation of ₹113.68 crore (as detailed in *Appendix 4.4*) due to increase in agreement value arrived at as per latest SSR.

The Government replied (June 2024) that due to delay in decision making of NHAI and non-submission of concurrence letter by the contract agencies for deletion of the work from the scope of their contracts, led to delay in entrustment of NH crossings to new agencies.

During the Exit Conference, the Government stated (November 2024) that at the time of preparation of estimates and Hydraulic Particulars, the designs were prepared for four lane bridges. After submission of designs to NHAI, the NHAI requested to change the design of crossings/bridges to six lanes instead of four lanes. As GoI did not agree to bear the additional cost for Land Acquisition for increase in lanes, it was decided to entrust the work to NHAI. Repeated change in execution standards / rules / stand taken by NHAI resulted in delayed entrustment of these NH crossings.

Delay on the part of the Department to obtain concurrence from the contract agencies for deletion of the NH crossings from scope of work led to additional burden of ₹113.68 crore due to time and cost overrun.

#### 4.3.2 Execution of Left Main Canal

Out of eight packages in LMC, as of March 2023, only Package-2 works were completed. Due to slow progress of canal works, some of the works were deleted from the scope of original contract agencies and were awarded to new agencies. The works pertaining to Packages-1A, 4 & 4A, 7 and 8 were in progress as of March 2023 and the proposals for awarding of works of remaining packages-1, 3, 5 & 5A and 6A were pending with Government.

##### 4.3.2.1 Incorrect sanction towards additional structures

As per the terms and conditions of EPC contract system, the contractor has to execute the total work as a whole irrespective of the number of structures provided in the IBM. As per modalities issued<sup>161</sup> (February 2015) by Government for implementation of government orders, the increase in number of structures can be considered only if there are changes in basic project

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<sup>160</sup> NH-16 crossings at Km 33.559, Km 41.650, Km 55.410, Km 64.375, Km 77.175, Km 80.998, Km 88.035, Km 93.700, Km 103.658, Km 173.609 and at Km 0.850 of New Water Supply Canal

<sup>161</sup> Para 7 of Annexure to G.O.Ms.No. 22 dated 23.02.2015

parameters. Government Memo issued<sup>162</sup> (May 2008) stipulates basic parameters of canals as discharge capacity, full supply level, bed level, command area to be covered, location of starting and ending of canal, distributaries, *etc.*

The Package-7 work of LMC was awarded (2004) to a contract agency<sup>163</sup> at a cost of ₹175.00 crore. As per IBM, 52 structures were proposed in Package-7. However, Government sanctioned<sup>164</sup> (March 2022) 20 more structures (total 72 numbers) than what was provided in IBM at an additional cost of ₹15.74 crore.

Audit noticed that Government had accorded additional sanction for increase in number of structures without change in the basic project parameters<sup>165</sup>. It was also noticed that the Chief Engineer, PIP reported<sup>166</sup> (May 2021) to the Government stating that as the number of structures increase from 52 to 73 (number of structures actually increased to 72 only), the basic project parameters are changed.

It is pertinent to mention here that, as per para 2 (b) of the Government Memo of May 2008 stated above, the project parameters in respect of canal are governed by the discharge capacity, full supply level, bed width, command area to be covered, location of starting and ending points of canal and distributaries, but not due to increase in number of structures/ quantities. As such, the incorrect sanction towards additional structures resulted in extending undue benefit to the contract agency and avoidable additional burden to the exchequer for an amount of ₹15.74 crore.

The Government replied (June 2024) that due to change in design owing to unforeseen discovery in site geology or changes in basic project parameters or changes in alignment due to local factors, all of which were not provided in the IBM estimate, revised quantities/ designs are essential for the completion of work. Accordingly, the contractor has submitted proposals for additional structures and quantities arrived due to site geology. Subsequently, based on recommendation of State Level Technical Committee sanction for additional structures was accorded in the interest of early completion of work and to achieve the intended benefits as per schedule.

During the Exit Conference, the Government stated (November 2024) that as the quantities provided in the IBM were very less when compared to the ground reality of execution, many of the agencies were not ready to execute the works. Hence, it was decided to pay the net variations in quantities to the contract agencies in the interest of completion of the work at an early date.

The reply is not acceptable, as the guidelines issued by the Government prescribe that the variations in quantities from estimated quantities and items of structures *i.e.*, increase in number of structures can be considered only if there are changes in basic project parameters and/or unforeseen discovery in site geology and/or change in alignment. However, in the instant case, the Government did not provide any documentary evidence in support of the claim that there was a change in basic project parameters / site geology. Further, as per the terms and

<sup>162</sup> Memo No. 34843/Reforms/2006 dated 07.05.2008

<sup>163</sup> M/s KCL-JCCG (JV), Hyderabad

<sup>164</sup> G.O.RT.No.534 dated 19.03.2022

<sup>165</sup> length & width of canal, water carrying capacity, hydraulic parameters

<sup>166</sup> CE/PIP/DCE2/OT9/AEE2/PIPLMC/Pkg-2/Cost variation of structures dated 29.05.2021

conditions of the agreement, it is the contractor's responsibility to complete the work as a whole, for the fixed / agreed price, irrespective of the number of structures provided in IBM. Hence, the contractor is not eligible for additional payment towards an increase in structures/ quantities as per the agreement conditions. Incorrect sanction towards payment for additional structures resulted in undue advantage to contract agency for ₹15.74 crore.

***Recommendation 4.2: The State Government should streamline the procedures relating to EPC contracts including the deliverables, scope and specification of work to avoid undue advantage to the contractors and loss to exchequer due to variation in quantities / number of structures.***

#### **4.3.2.2 Non-settlement of accounts of the contract agencies**

The Package-5 and Package-8 works of PIPLMC were awarded<sup>167</sup> in 2005. Due to non-completion of work by agencies (despite giving numerous Extension of Time), the Government had deleted<sup>168</sup> (November 2016) certain portions of work and entrusted to new agencies duly retaining a few portions of work with the old agencies. Subsequently, the Government decided to pre-close (July 2020) the works held with the old contract agency and directed the authorities to settle the accounts with the old contract agencies.

Audit noticed that liabilities of contract agencies worth ₹37.72 crore<sup>169</sup> (recoveries to be made from the contractors) were more than assets worth ₹19.72 crore<sup>170</sup> (amounts of contractors available with the Department) of package 5 and 8. Thus, liabilities were more than the assets by ₹18.00 crore.

During the Exit Conference, the Government stated (November 2024) that as the work taken up under clause 60 (C) was not completed to arrive at the penalty to be levied on the original contract agencies, the accounts were not settled. The accounts would be settled once the work is completed.

## **4.4 Issues relating to both Right and Left Main Canal**

### **4.4.1 Delay in preparation of Detailed Project Reports for distributary network**

A distributary network is an essential component in any irrigation project to deliver irrigation water to the fields. The PIP contemplates creation of irrigation potential of 7.20 lakh acres<sup>171</sup>.

The work 'Conducting detailed investigation, survey and preparation of DPR for distributary network for LMC and RMC' was entrusted (November & December 2019) to a contract agency<sup>172</sup> at a cost of ₹7.92 crore (LMC: ₹4.31 crore and RMC: ₹3.61 crore) with a period of completion as six months *i.e.*, May 2020 for LMC and June 2020 for RMC.

Audit noticed that even after three years from the date of entrustment of the work to the contract agency, the work remained incomplete as of March 2023. The expenditure incurred towards

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<sup>167</sup> Package 5: M/s Sabir Dam & Water Works Constructions, Hyderabad and Package 8: M/s IVRCL-SEW & Prasad (JV), Hyderabad

<sup>168</sup> In Package - 5, EWE for 5.75 Km, lining for 11.00 Km and 33 numbers of CM & CD works were deleted and balance work worth ₹16.82 crore retained with the original agency. In Package -8, works worth ₹68.66 crore were deleted (except CNS lining) and works worth ₹15.05 crore retained with the original agency

<sup>169</sup> Package 5: ₹19.43 crore and Package 8: ₹18.29 crore

<sup>170</sup> Package 5: ₹15.64 crore and Package 8: ₹4.08 crore

<sup>171</sup> LMC: 4.00 lakh acres and RMC: 3.20 lakh acres

<sup>172</sup> M/s IIC Technologies Limited, Hyderabad

survey and levelling operations for preparation of DPR of LMC was ₹0.95 crore and that of RMC was ₹0.72 crore.

The Government replied (June 2024) that the draft DPRs were submitted to PPA and CWC for approval, to which certain observations were communicated (April 2024). After obtaining approval, the process for tenders of the distributary network would commence.

Thus, the fact remained that the DPR for distributary networks of both LMC and RMC was not finalised, which was one of the reasons for the delay in approval of 2<sup>nd</sup> RCE by GoI.

#### 4.4.2 Accountability and disposal of excavated earth

Clause 61.3 of EPC agreements concluded with contract agencies for LMC & RMC works stipulate that the contractor should not dispose of or remove the excavated spoil earth except for utilisation in work with due consent of the Department. The obtained spoil earth would be the property of the Government which needs to be safeguarded and accounted for<sup>173</sup>.

##### 4.4.2.1 Non-disposal of spoil earth

Audit noticed (June 2022) that huge quantities of spoil earth worth ₹1,660.15 crore (₹138 per cum x 12.02 crore cum) were available at work sites of both LMC and RMC. The details of spoils available were not accounted for in the Major/ Minor 7F register to verify the correctness of information furnished by the Department. The quantities and the cost of spoil available are detailed in **Table 4.4**.

**Table 4.4: Spoil earth available under each package and revenue receivable**

Package Number	Balance quantity of spoil available at site (in crore cum)	Cost of the spoil (₹ in crore)
<b>Left Main Canal</b>		
1	1.52	210.01
2	1.80	248.92
3	0.90	123.82
4	0.99	137.23
5	0.94	129.27
6 & 7	1.58	218.45
8	0.17	23.88
<b>Right Main Canal</b>		
4	1.94	267.45
5	1.17	161.01
6	0.43	59.58
7	0.58	80.53
<b>Total</b>	<b>12.02</b>	<b>1,660.15</b>

Source: Information provided by the Department

Note: The unit rates were varying from ₹107 to ₹138. However, the uniform rate of ₹138 was considered as per SoR 2021-22 as comment was made in 2022

The reasons for non-disposal of spoils available at site were not on record. Non-disposal of the available spoils might lead to delayed accrual of revenue / loss due to theft or by nature.

The Government replied (June 2024) that Major and Minor 7F registers were not being maintained for spoil, as was done for cement and oil which can be kept in safe custody of lock and key. The Government also replied that permission for disposal of spoil is being granted

<sup>173</sup> duly recording in Major/Minor 7F account register

from time to time as per the request made by various Departments. Tenders would be invited, for disposal of the spoil at spoil banks.

During the Exit Conference, the Government stated (November 2024) that for the entire spoil a joint survey was conducted with the Mines & Geology Department. The Mines & Geology Department did not come forward to take the spoil which was present all along the canal length of 200 Km. The cost of safeguarding (appointing security guards) would be very high. However, wherever required, the spoil earth is used in government works as per requisition received. Only the material which can be kept under lock and key can be registered in 7F. As such, the spoil is not taken into the 7F registers. The spoil could not be sold, as the agencies were not ready to lift all the spoil at once due to storage problem which requires huge extent of land.

Reply is not acceptable. To have proper accountal of spoil earth stored and utilised, it is mandatory to maintain the details of spoil in Major and Minor 7F register. The delay in disposal of spoil may lead to loss of revenue by way of theft or pilferage.

#### 4.4.2.2 Theft of spoil earth

Audit noticed that theft of spoil earth had occurred in Packages 4, 5, 6 & 7 of RMC. The quantities and value of spoil earth stolen as reported by Department, as per SSR 2020-21, were as mentioned in **Table 4.5**.

**Table 4.5: Details of theft of spoil earth in Right Main Canal**

Packages	Quantity of spoil theft (in cum)	Rate per cum (in ₹)	Value of spoil theft (₹ in crore)
4 & 5	73,702	138	1.02
6 & 7	8,45,800	138	11.67
<b>Total</b>	<b>9,19,502</b>		<b>12.69</b>

Source: Records of the Department

The Department did not furnish the relevant records to verify the quantum of spoil earth stolen and action taken by the Department to recover the lost quantity.

The Government replied (June 2024) that as and when cases of theft were identified complaints are being lodged and cost of spoil stolen is being recovered besides imposing fines.

The reply is not acceptable, as the spoil earth stolen worth ₹12.69 crore was remained unrecovered and the Department could not identify the responsible to recover the cost of spoil and levy fine.

**Recommendation 4.3: The State Government should instruct the Department to account for the excavated spoil earth properly and implement safety measures to prevent any kind of theft.**

#### 4.4.3 Non-recovery of extra cost from original contract agency for completion of balance works

As per clause 60 (C) of PS to APDSS<sup>174</sup>, if the original contract agency is not able to complete any of the balance works as per the timelines fixed by the Government, the same may be deleted

<sup>174</sup> Preliminary Specifications to Andhra Pradesh Detailed Standard Specifications

from the scope of the contract agency and entrusted to other willing contract agencies to carry out the work. If the balance work completed by other contract agency involves any extra cost, the difference shall be recovered from the original contract agency. Such recovery shall not exceed five *per cent* of the total agreement value (finished value of work).

Audit noticed that as the original contract agencies could not complete the work in time and unable to meet the timelines of the contract, the Department had deleted works worth ₹462.47 crore in 10 packages<sup>175</sup> from the scope of original contract agencies and entrusted the works to new contract agencies at a cost of ₹978.38 crore. As a result, there was an extra cost of ₹515.91 crore involved in completion of the balance works by the new contract agencies. The extra cost involved in completion of the work limited to five *per cent* of the finished value of work (Original contract value of 10 packages: ₹2,376.71 crore + ₹515.91 crore = ₹2,892.62 crore) worth ₹144.63 crore (as detailed in **Appendix 4.5**) was not recovered from the original agencies thereby extending undue benefit to the original contract agencies to that extent.

The Government replied (June 2024) that the differential cost of works deleted and being executed by new agencies would be recovered from the original contract agencies during final settlement of bills.

#### **4.4.4 Diversion of project land for housing scheme**

The District Collector, West Godavari addressed<sup>176</sup> (March 2020) Water Resources Department (WRD) for granting ratification orders for utilisation of the land belonging to WRD (RMC, Polavaram Irrigation Project), for providing house sites to the eligible beneficiaries under the flagship programme "Navaratnalu-Pedalandariki Illu" of GoAP. The WRD denied<sup>177</sup> (March 2020) the proposal and stated that PIP is a National Project and the assets belongs to Polavaram Project Authority (PPA), Government of India, and hence cannot be spared.

The District Collector, West Godavari addressed<sup>178</sup> (March 2020) Chief Secretary to GoAP for issue of necessary orders to assign RMC land measuring 28.25 acres for providing house sites to the eligible beneficiaries. Further, the District Collector stated that if required, in future, private land would be acquired for the project. Government requested<sup>179</sup> (June 2020) CE, PIP to furnish remarks on the subject matter for taking further action immediately.

The CE, PIP submitted<sup>180</sup> (July 2020) that the land measuring 28.25 acres is essential for canal widening work. The CE, PIP further reported that the Revenue Authorities have occupied and levelled the LMC land to an extent of 46.89 acres in three villages of erstwhile East Godavari District without the consent of WRD. It was also submitted that LMC land are required as area for spoil banks to carry out emergency restoration of canal banks in case of breach of canal during water regulation period and natural disasters like cyclones, floods, *etc.*

<sup>175</sup> Package 2, 4, 5, 6 & 7 in RMC and package 1, 3, 4, 5 & 6 in LMC (having total agreement value of ₹2,263.33 crore)

<sup>176</sup> letter No. ROC No. E4/e-1784822/2020 dated 07.03.2020

<sup>177</sup> memo No. ICD01/MJIR0IC28/111/2020-PROJECTS-1 dated 14.03.2020

<sup>178</sup> D.O. Letter No. E4/e- 1784822/2020 dated 21.03.2020

<sup>179</sup> memo No. ICD01/MJIR0IC28/111/2020-PROJECTS-1 dated 29.06.2020

<sup>180</sup> letter No. CE/PIP/DCE/OT2/AEE4/Misc dated 07.07.2020

The CE, PIP also reported that the Hon'ble High Court of Andhra Pradesh had ordered<sup>181</sup> (April 2019) that alienation of LMC land for providing house sites to landless poor, is not permissible and particularly the land meant for spoil bank. Hence, CE, PIP requested Government to address the concerned District Collectors<sup>182</sup> to state that the land of LMC and RMC cannot be spared for "Navaratnalu–Pedalandariki Illu".

Despite this, the Revenue Authorities of erstwhile East Godavari District, irregularly occupied 30.77 acres of LMC land and 28.25 acres in RMC for allotting house sites in various villages. Further, there was no proposal to provide alternate land to WRD.

The unilateral decision of Revenue Authorities to take back the land (without the consent of WRD) specially designated for disposal of spoil earth would affect the disposal process and in turn may create environmental & ecological problems/issues and attract penalties from NGT.

The Government replied (November 2024) that the ratification for the said land in West Godavari District was denied and the said land of 30.77 acres of LMC and 28.25 acres of RMC is in possession of the WRD. During the Exit Conference, the Government stated (November 2024) that the documents showing handing over of land to WRD by Revenue Authorities would be obtained and a detailed reply would be furnished after verifying all the documents.

Though the Government reported that the entire project land pertaining to West Godavari District is in the possession of WRD, documentary evidence in this regard was not provided.

#### **4.4.5 Non recovery of dues from contract agencies**

Scrutiny of records revealed that the Department had identified the recoveries to be affected from the contract agencies towards removal of deposited earth material, interest on mobilisation advance along with principal, etc., from the running account bills worth ₹37.67 crore as detailed in *Appendix 4.6*. However, the amounts were not recovered from the contract agencies in respect of the works of LMC and RMC.

The Government replied (June 2024) that in respect of RMC Package 2 work, the amount provided in IBM estimates for 'HPCL & GAIL pipelines', was ₹3.50 lakh and the same was recovered in 66<sup>th</sup> and part bill. In respect of 'Shifting of electric lines', the amounts provided in the IBM estimates was ₹14.17 lakh and the same would be recovered from the next running bills.

The reply is not acceptable, as the said amounts were with the contract agencies for the period ranging between eight to 15 years. Further, as per the agreement the cost of execution of 'Shifting of electric lines' and 'HPCL & GAIL pipelines' shall be borne by the contract agencies. Hence, the actual amount paid by the government to the respective executing agencies needs to be recovered from the contract agencies as per terms of agreement. The WRD had not taken immediate action to recover the amounts due from the contract agencies and delayed the process of recovery.

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<sup>181</sup> dated 16.04.2019 in W.P (PIL)No.15 of 2019

<sup>182</sup> Visakhapatnam, East Godavari, West Godavari & Krishna Districts

# Chapter V

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## **Land Acquisition**

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LAND

ACQUISITION



## Chapter V Land Acquisition

Out of the total land requirement, the Department could acquire 67.43 per cent of land since inception of the project. There was variation between the extent of land requirement as per Detailed Project Report and 2<sup>nd</sup> Revised Cost Estimate (RCE) for the year 2017-18. There was drastic decrease in extent of government and forest land to be acquired, with corresponding sharp increase in assigned/encroached government land during the period from 2010-11 to 2017-18 RCE causing additional financial burden towards land cost. Incorrect interpretation of Act provisions led to incorrect calculation of additional market value resulting in excess payment of land compensation. Land compensation amount was paid to 27 ineligible non-tribes in contravention to the provisions of the RFCTLARR Act, 2013. There were discrepancies in the extent and classification of land as per land requisitioned by WRD and as per survey reports or land awards of Revenue records. Land awards were passed without proper ownership records.

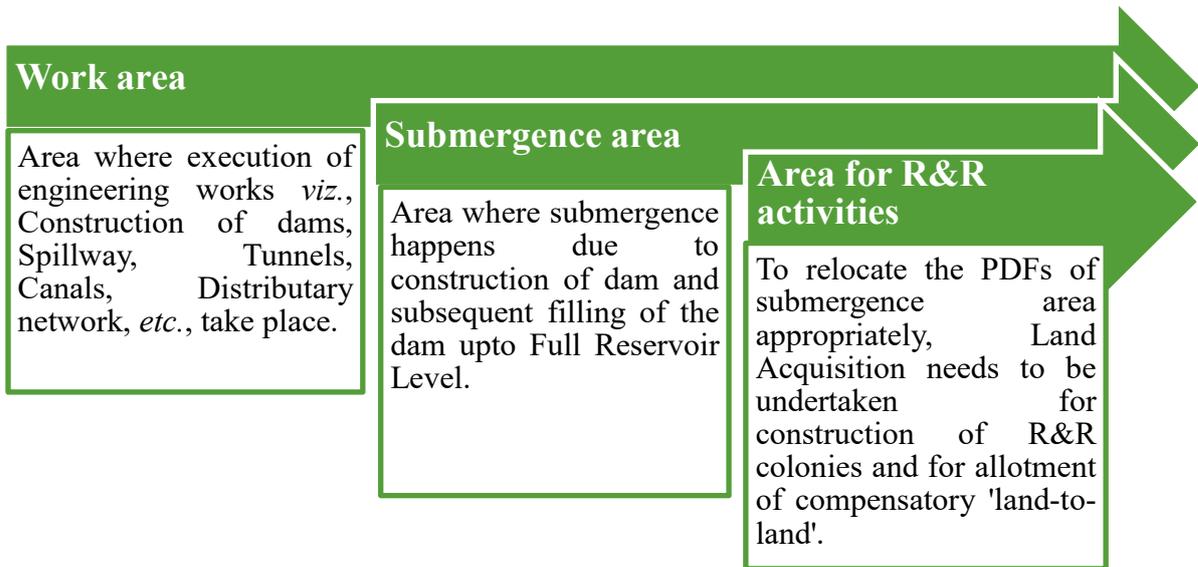
Due to delay in passing of awards for acquisition of village sites along with agricultural land, inordinate delay in passing of awards after disposal of court cases, delay in acquisition of assigned land resulted in avoidable financial burden, as the land which were proposed to be acquired well ahead of introduction of RFCTLARR Act, 2013, were acquired after introduction of the Act. There was irregular payment of land compensation for Khalsa land (Government land) to ineligible beneficiaries. Payment of land compensation amount was made for unclaimed land and without verifying ownership records. Land-to-land transfer/apportionment was made for full extent of land acquired instead of restricting to the permissible limit, thereby resulted in excess transfer of land under 'land-to-land' transfer.

### 5.1 Introduction

Land Acquisition for projects and issues relating to Rehabilitation and Resettlement of affected people were earlier governed by the Land Acquisition (LA) Act, 1894 until (January 2014) the enactment of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013 by Government of India. In line with RFCTLARR Act, 2013, GoAP had framed (November 2014) AP RFCTLARR Rules, 2014.

Section 24 of RFCTLARR Act, 2013, stipulate that in case of Land Acquisition proceedings initiated under the Land Acquisition Act, 1894 (1 of 1894), where an award under Section 11 has been made five years or more prior to the commencement of this Act but the physical possession of the land has not been taken or the compensation has not been paid, the said proceedings shall be deemed to have lapsed and the appropriate Government, shall initiate the proceedings of such Land Acquisition afresh in accordance with the provisions of Act, 2013.

The PIP mainly consists of three categories of affected areas *i.e.*, Work area, Submergence area & area for R&R activities which require Land Acquisition.



### 5.1.1 Process of Land Acquisition

As per provisions of RFCTLARR Act, 2013, a preliminary survey is conducted to assess the affected area and requirement of estimated land due to construction of the project by using survey<sup>183</sup> data. The Project Administrator<sup>184</sup> and Commissioner, R&R appointed by Government are responsible for supervising the formulation and execution of R&R schemes or Plans.

The R&R Officers<sup>185</sup> shall conduct (Section 16 of RFCTLARR Act, 2013) Socio Economic Survey (SES) and undertake a census of the Project Displaced Families (PDFs) in the affected/submerged area. The R&R Officers shall assess the details of land and immovable properties being acquired from each affected family to arrive at the actual requirement of land to be acquired for submergence and R&R activities. The Chief Engineer (CE), PIP shall assess the requirement of land for the work area through survey methods mentioned. The CE and R&R Officers shall submit requisition to the Land Acquisition Officer (LAO) for the total extent of land required. The LAO verifies the extent, classification, and ownership details of land to be acquired by following the due process as per the provisions of RFCTLARR Act, 2013.

The process of Land Acquisition involves assessment of land as per requirement, issue of Preliminary Notification for acquisition and survey of land to be acquired, declaration and passing of Land Acquisition awards, payment of award compensation and grievance redressal, if any. The due procedure followed in acquisition of land under PIP are detailed in **Appendix 5.1**.

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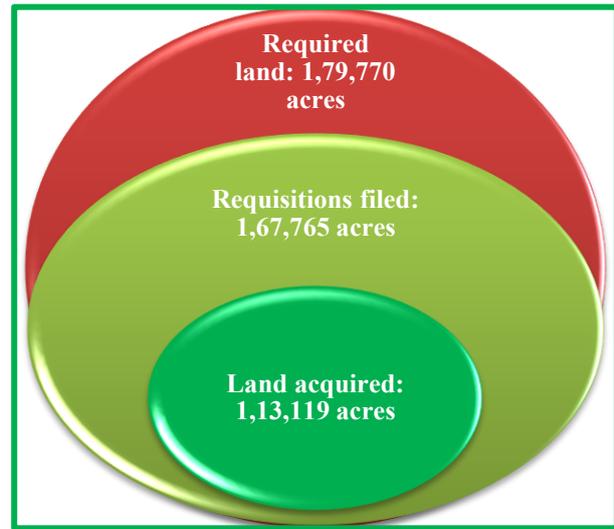
<sup>183</sup> Preliminary Survey by studying Topo sheets of Survey of India, Field survey by using various methods *viz.*, Fly leveling, double check levelling, chain check surveying with prismatic compass, and Light Detection and Ranging (LIDAR) survey

<sup>184</sup> Section 43 and Section 44(2) of RFCTLARR Act, 2013 for PA and Commissioner, R&R respectively

<sup>185</sup> Project Administrator and Commissioner, R&R

### 5.1.2 Status of Land Acquisition

As per the records of Special Collector (LA), PIP the total extent of land to be acquired for PIP for Work area, Submergence area and area for R&R activities was assessed as 1,79,770 acres<sup>186</sup>. Against the requirement, requisitions were filed (over a period of time) with LAOs for an extent of 1,67,765 acres. However, land to an extent of 1,13,119 acres<sup>187</sup>, i.e., 67.43 per cent, has been acquired leaving a balance of 54,646 acres to be acquired (March 2023).



Initially, the Department planned to acquire the land required for Work area, Submergence area and R&R activities in a phased manner starting from lower to higher contours<sup>188</sup>.

In November 2021, PPA gave its consent<sup>189</sup> to implement R&R activities in two Phases viz., Phase-I (upto Elevation of (+) 41.15 m) and Phase-II (above (+) 41.15 m). As per the records of WRD, the Land Acquisition for the Work Area was almost completed. However, land required for Submergence area and for R&R activities (including ‘Land-to-land’ transfer) was not fully acquired till March 2023. The physical and financial progress of Land Acquisition as of March 2023 was as detailed in **Table 5.1**.

**Table 5.1: Category wise physical and financial progress of Land Acquisition**

Component	Total land to be acquired as per requisition filed with LAO		Land Acquisition completed		Balance land to be acquired		
					As per Revenue Records	As per WRD	
	Physical (in acres)	Financial (₹ in crore)	Physical (in acres)	Financial (₹ in crore)	Physical (in acres)	Physical (in acres)	Financial (₹ in crore)
Work Area	26,238.23	1,589.67	24,673.33	1,532.32	1,564.90	71.19	57.35
Submergence	1,04,033.11	6,432.68	74,695.83	2,625.77	29,337.28	30,415.11	3,806.91
R&R Activities	37,493.79	4,073.90	13,749.91	1,298.61	23,743.88	23,762.15	2,775.29
<b>Total</b>	<b>1,67,765.13</b>	<b>12,096.25</b>	<b>1,13,119.07</b>	<b>5,456.70</b>	<b>54,646.06</b>	<b>54,248.45</b>	<b>6,639.55</b>

Source: Information provided by the Special Collector (Land Acquisition), PIP, Rajamahendravaram

The acquisition of balance land was targeted to be completed between March<sup>190</sup> and December 2023. However, the acquisition of balance land of 54,248.45 acres (as per WRD) was not completed as of March 2023. Further, it could be seen from the above that there was variation

<sup>186</sup> Submergence Area: 1,12,930.11 acres; Work Area: 2,462.97 acres; Land-to-land: 26,729.92 acres; Land for R&R activities: 8,581.05 acres; LMC: 14,079.38 acres and RMC: 14,986.70 acres

<sup>187</sup> 73,207 acres acquired under LA Act, 1894 and 39,912 acres acquired under RFCTLARR Act, 2013

<sup>188</sup> Contour upto (+) 35.50 m, (+) 35.50 m to (+) 41.15 m and (+) 41.15 m to (+) 45.72 m

<sup>189</sup> as per minutes of the 14<sup>th</sup> meeting of Polavaram Project Authority held on 10.11.2021

<sup>190</sup> upto (+)35.50 m: 815.56 acres, between (+) 35.50 to (+) 41.15m: 966.34 acres and between (+) 41.15 to (+) 45.72 m: 52,466.55 acres

of 397.61 acres of balance land to be acquired between the records of LA Authorities and WRD. The variation was not reconciled by both the Departments as of March 2023.

## 5.2 Planning process for Land Acquisition

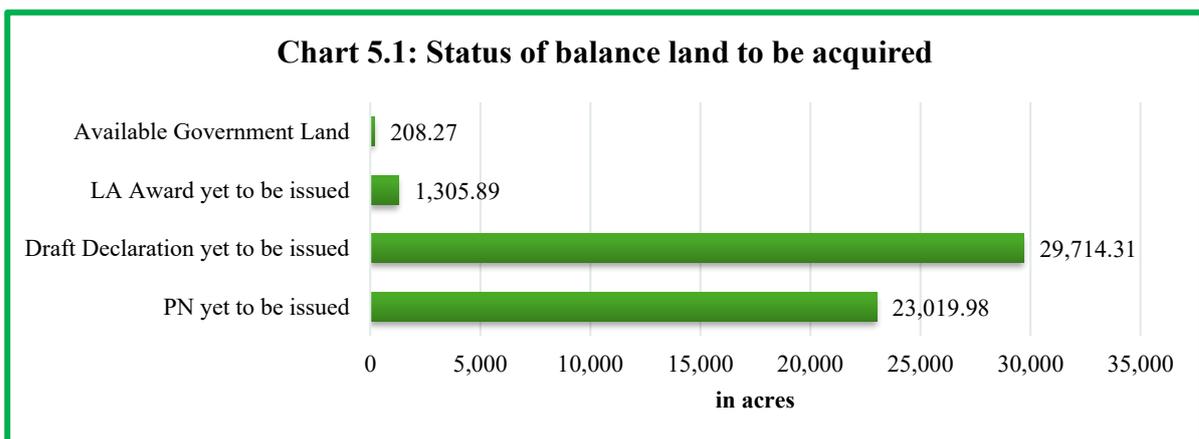
The Section 11 RFCTLARR Act, 2013 prescribes that after requisition for land by requiring body, a Preliminary Notification (PN) containing the details of land to be acquired shall be issued by the District Collector with wide circulation and publication. After issuing PN, the District Collector shall ensure updation of land records within a period of two months and shall conduct a preliminary survey (Section 12) of the land proposed for acquisition. Publication of declaration of an area identified as resettlement area for the purposes of R&R affected families shall be made within a period of 12 months (Section 19) from the date of publication of PN. The District Collector shall make LA award within a period of 12 months (Section 25) from the date of publication of the declaration.

### 5.2.1 Slow progress of Land Acquisition

As per Proviso to Section 38(1) of RFCTLARR Act, 2013, in case of acquisition of land for irrigation or hydel project, being a public purpose, R&R shall be completed six months prior to submergence of the land acquired. Thus, LA should be completed six months prior to completion of entire project work. As per Ministry of Jal Shakti, GoI, the scheduled date for completion of the entire project was fixed as March 2026 for Phase-I with provision for one year extension.

Audit noticed that:

- (i) As of March 2023, the Department had acquired land measuring 1,13,119.07 acres since inception of the project, as against the requisitioned land of 1,67,765 acres. The Status of balance land to be acquired is at various stages as shown in **Chart 5.1**.



It could be seen from the above that acquisition of a major portion of land is either at PN or draft declaration stage. For land measuring 23,019.98 acres, which is at PN stage, it would require a minimum period of 24 months to complete the entire LA process as per provisions of RFCTLARR Act, 2013. Further, for 29,714.31 acres, a period of 12 months is required for issue of award. In addition to above, out of a total of 1,06,006 PDFs of 373 habilitations to be rehabilitated, only 11,677 PDFs pertaining to 38 habilitations were rehabilitated (as of March 2023) leaving balance of 94,329 PDFs (88.99 per cent) of 335 habilitations yet to be

rehabilitated (*detailed discussion in Chapter VI*). Thus, acquisition of balance land (33 per cent) in a short time of nine months (April to December 2023) seems remote.

Further, the time schedule fixed for LA since commencement of project in 2004, year-wise progress achieved against the targeted land to be acquired and reasons for non-achievement of targets were not forthcoming from the records produced to audit. In the absence of relevant information, Audit could not assess the reasons for the slow pace of acquisition of land.

The Government replied (August 2024) that the balance land under Phase-I would be acquired by January 2025 and for Phase-II by June 2025. Further, it was replied that in addition to Covid-19 pandemic and frequent floods in villages/ habitations, bills worth ₹255.65 crore pertaining to an extent of 1,151.00 acres are pending disbursement. It was also stated that completion of the balance acquisition process is dependent on the availability of budget.

During the Exit Conference, the Government stated (November 2024) that now as GoI had directed for phase wise funding, the LA requirement for Phase-I is approximately 1,00,099 acres, of which 83,659 acres is acquired. Of the balance land, the major portion is for land-to-land exchange and R&R package only. A revised reply would be submitted in view of the changed scenario.

The reply is not convincing, as the balance land to be acquired as of March 2023 was 54,645.93 acres and with slow progress in both LA and R&R of PDFs, completion of entire LA by June 2025 seems remote. Impounding water in the project would not be possible without the completion of LA and R&R. Further, the Government did not furnish the information on time schedules stipulated for completion of LA activities and reasons for non-achievement.

(ii) Though the works of PIP commenced in the year 2004, the DPR and Land Plan (LP) Schedules<sup>191</sup> for 6,158.25 acres of land required for distributary network were not submitted to Special Collector (LA) by WRD. As a result, LA for provisioning of distributary network did not materialise, which would delay the completion of PIP.

The Government replied (November 2024) that the LA process is taken-up in phased manner, viz., Phase-I i.e., upto (+) 41.15m and Phase-II (+) 41.15m to (+) 45.72m. After 2019-22 floods, LIDAR survey was taken up to ascertain the number of villages under submergence up to Phase-I, resulting in further addition of 32 villages (48 habitations) which would be marooned or cut off accessibility. Hence, it was decided to complete LA for 32 villages in Phase-I. The timeline for completion of Phase-I of the project is fixed by GoI as March 2026 with provision for extension of one year. Hence there is no delay in LA process.

The reply is not acceptable. Despite a lapse of 18 years from the date of commencement of LA process, the LA process remained incomplete even for Phase-I.

### **5.2.2 Lack of consistency in assessment of land**

Initially, land requirement for the project was assessed, based on DPR prepared in 2005-06. Subsequently, DPRs were revised twice in the year 2010-11 and 2017-18 based on Price Levels of respective years without any change in the Full Reservoir Level (FRL) of (+) 45.72 m.

<sup>191</sup> detailed plan of land to be acquired, village and survey number wise

The 2<sup>nd</sup> Revised Cost Estimate (RCE) was prepared by the Water Resources Department, based on the approved DPR of 2017-18. The Revised Cost Committee (RCC) submitted (March 2020) report on PIP and mentioned that there was increase (2<sup>nd</sup> RCE) in cost estimate due to adoption of new Land Acquisition Act, 2013 for Land Acquisition, increase in extent of land to be acquired for submergence area and increase in number of PDFs, when compared to 1<sup>st</sup> RCE. The details of land requirement and villages under submergence, number of PDFs identified, as per DPRs of respective years, *i.e.*, 1<sup>st</sup> (2010-11 PL) and 2<sup>nd</sup> (2017-18 PL) RCE is as detailed in **Table 5.2**.

**Table 5.2: Variation in requirement of land and PDFs**

Category	2010-11 As per			2017-18 As per		
	DPR	1 <sup>st</sup> RCE	Variation	DPR	2 <sup>nd</sup> RCE	Variation
Land requirement (in acres)	95,612	1,35,043 <sup>192</sup>	39,431	95,612	1,79,770 <sup>193</sup>	84,158
Number of villages submerged	276	276	0	276	368	92
Number of PDFs	44,574	44,574	0	44,574	1,06,006	61,432

Source: Report of the Revised Cost Committee for Polavaram Irrigation Project (2<sup>nd</sup> RCE)

Audit noticed that:

- (i) There was variation between the figures depicted in DPR and the respective years RCEs in respect of land requirement and PDFs during 2017-18. Though the WRD has submitted the LP schedules to the LA authorities way back in 2006, PNs for the entire land required are yet to be issued.
- (ii) The number of PDFs is dynamic and may vary in each census duly considering adulthood as well as deaths. However, there was no change in number of PDFs (*i.e.*, 44,574) between the two RCEs. Even after a gap of seven years between the two RCEs, the number of PDFs remained the same, which reflects that census was not conducted during the gap period of the two RCEs.
- (iii) Land for R&R activities (land for development of colonies and land-to-land transfer) mainly depends on the number of PDFs, number of colonies to be constructed and R&R infrastructure to be provided. The RFCTLARR Act, 2013 stipulated provision for additional basic infrastructural amenities compared to earlier ones which requires additional land for R&R activities per PDF. As per the provisions of RFCTLARR Act, 2013, one acre of land has to be acquired for 12 PDFs in R&R colony, out of which 0.60 acres of land has to be utilised for construction of housing units and remaining 0.40 acres for providing infrastructure facilities as per norms of District Town and Country Planning Department.

As per 2010-11 RCE, for 44,574 identified PDFs an extent of land measuring 28,637 acres was shown as land required for R&R activities. In 2017-18 RCE for R&R activities, the land required for 1,06,006 PDFs was shown as 35,311 acres.

<sup>192</sup> Submergence area: 95,613 acres, Work area: 10,793 acres and area for R&R activities: 28,637 acres

<sup>193</sup> Submergence area: 1,12,930 acres, Work area: 31,529 acres and area for R&R activities: 35,311 acres

Thus, for increase in 61,432 PDFs (1,06,006 – 44,574), an additional extent of land measuring 5,119<sup>194</sup> acres was required to be acquired. As against the requirement of 5,119 acres, in 2<sup>nd</sup> RCE additional land requirement was shown as 6,674 acres (35,311 acres – 28,637 acres), duly inflating the land requirement by 1,555 acres costing ₹169.65 crore (at ₹10.91 lakh per acre as approved by 2<sup>nd</sup> RCC).

- (iv) Area under submergence mainly depends on the topography and FRL of the project. Even though these two parameters were unchanged during the period, the required land for submergence area increased from 95,613 acres (2010-11 PL) to 1,12,930 acres (2017-18 PL).
- (v) The land required for Work area mainly depends on components of work involved in the project. Hence, the land required for Work area assessed initially based on components to be executed should not change. However, there was increase in land requirement from 920 acres (2005-06/2013-14 PL) to 2,463 acres (2017-18 PL) for work area of Headworks (other than distributary network of 6,158 acres and increase in canal requirement due to increased discharge capacity). The reasons for the increase in land requirement for work area were not forthcoming from the records produced to audit.

The Government replied (November 2024) that the date of Preliminary Notification to acquire land under submergence is the cutoff date for preparation of list of affected people to extend R&R benefits as per R&R policy 2005 and RFCTLARR Act, 2013. Due to the shortfall in LA units (only five LA units functioning for the acquisition of land for the project) and staff, the process could not be taken up in a single year. With delay in issue of PNs and as date of issue of PN is cutoff date for eligibility of a PDF, all people affected are added on attaining 18 years. Hence, the PDFs are increased and as such the requirement of land for rehabilitation. It was also replied that the LA process was initiated as per the LP schedules received from WRD. In 2017, 92 additional habitations were added to the submergence list on the recommendations of the Engineer-in-Chief. Further, it was replied that due to increase in work area for the Headworks and addition of the above-mentioned 92 habitations, the LA process was initiated as per requisitions received from WRD.

The Government did not furnish the information on reasons for inclusion of additional habitations, number of PDFs affected, extent of land that would be submerged and also the reasons for non-inclusion of total requirement of land in the DPR 2017-18.

***Recommendation 5.1: The State Government should determine the extent of land under submergence in alignment with Revenue records, PDFs affected, land required for R&R activities and submit a detailed report to GoI for early approval of Revised Cost Estimate.***

### **5.2.3 Decrease in extent of government and forest land for acquisition**

As per First Schedule of RFCTLARR Act, 2013, compensation shall be paid to landowners of assigned/D-Patta<sup>195</sup> land whose land is acquired and no compensation is payable for government land.

<sup>194</sup> 61,432 PDFs x one acre/12 PDF=5,119 acres

<sup>195</sup> 'D-Patta' shall have the same meaning as assigned to it in the relevant Central or State Acts or rules or regulations made thereunder and such families are also treated as affected families due to acquisition

Any decrease in government/forest land with consequent increase in assigned land/D-Patta/encroached land results in an increase of project cost with extra financial burden to Government towards cost of acquisition of land.

Scrutiny of Report (March 2020) of Revised Cost Committee (RCC) on 2<sup>nd</sup> RCE revealed that the quantum of various types of land required *i.e.* Patta land/ D-Patta land/ encroached government land/government land/ forest land for the project have undergone a significant change from RCE at 2010-11 PL to RCE at 2017-18 PL as detailed in **Table 5.3**.

**Table 5.3: Extent of various types of land required**

Type of Land	2010-11	2017-18	Variation
	(in acres)		
Patta	95,971.54	1,43,093.10	47,121.56
Assigned/ D-Patta	0	5,426.90	5,426.90
Encroached Government land	0	6,944.79	6,944.79
Government land	29,852.00	15,578.00	(-)14,274.00
Forest land	9,219.60	8,727.27	(-)492.33
<b>Total</b>	<b>1,35,043.14</b>	<b>1,79,770.06<sup>196</sup></b>	<b>44,726.92</b>

Source: Report of the Revised Cost Committee for PIP (2<sup>nd</sup> RCE)

Further, scrutiny of report (August 2020) of Special Collector (LA) revealed that:

- (i) There was drastic decrease in the extent of government land to be acquired by 14,274 acres (29,852 acres -15,578 acres) and forest land by 492.33 acres from 2010-11 to 2017-18 RCE. Whereas there was a sharp increase in assigned/encroached government land from ‘zero’ to 12,371.69 acres and Patta land by 47,121.56 acres during the same period.

The reasons for the decrease in government and forest land to be acquired and increase in assigned/patta land were not forthcoming from the records produced to audit.

- (ii) A gazette notification regarding submergence of villages fully/partially in PIP was promulgated by the Government in July 2005. As such, the Government was aware of the extent of Patta land, Government and Forest land required/available for the Project. Despite knowing the fact that the area is covered under PIP Project area, these were assigned to landless and poor persons for cultivation at free of cost.

The extent of Assigned/D-Patta land during 2010-11 was zero, however, the same increased to 5,426.90 acres during the period 2010-11 to 2017-18.

Thus, the Government has issued D-Pattas for government land between 2010-17, thereby causing extra burden to exchequer towards payment of land cost.

- (iii) The Andhra Pradesh Land Encroachment Act, 1905 stipulate that the Government land should be protected from encroachments and procedure laid for eviction<sup>197</sup> of encroachments to be followed.

<sup>196</sup> the extent of land includes estimated land for Distributary network also

<sup>197</sup> by serving notices as per Section 6 and 7A of Andhra Pradesh Land Encroachment Act, 1905

Though Government land admeasuring 6,944.79 acres was encroached, the action taken by the Department against encroachers or for eviction during 2010-11 to 2017-18, if any, were not forthcoming from the records made available to audit.

The Department replied (May 2023) that D-Pattas were issued for government land for an extent of 8,185.27 acres between 2010-11 and 2020-21, and 1,838.64 acres of land were identified as encroached totaling to a total extent of 10,023.91 acres with compensation award amount of ₹619.83 crore<sup>198</sup>. The Department further stated that reconciliation of balance government land was under progress.

The Government replied (November 2024) that the WRD has submitted LP schedules as per the classification of land in Revenue Records, prepared between 1908 to 1920. In the LP schedules submitted by WRD, the subsequent land assignment and encroachments were not considered. A Joint Inspection was conducted by the Land Acquisition Officers, Survey and concerned local Revenue Department to verify the title/ownership of the land. Reconciliation is being conducted for land to be acquired along with the WRD by the Land Acquisition Officials to ascertain the classification of land and to arrive at the final figures. Hence, the extent of the assigned and Government land under encroachment were submitted to the 2<sup>nd</sup> RCE (2017). It was also replied that as per the existing Government Orders, ex-gratia equivalent to Market Value of the land is to be paid to the assignees and encroachers.

Thus, it is evident that the revenue records were not updated as and when an assignment was made. This resulted in wrongful reporting of classification wise figures and the expenditure to be incurred thereof in the 1<sup>st</sup> RCE, which was corrected during the 2<sup>nd</sup> RCE. Further, the Department failed to take timely action in preventing encroachments and eviction of encroachers. This resulted in an avoidable financial burden of ₹619.83 crore to the Government in the form of compensation to be paid, besides time over run on the project works.

***Recommendation 5.2: The State Government should take effective steps to protect its land from encroachments and also refrain from assigning land to the landless after notification of an 'area under submergence' to avoid payment of compensation for acquiring back the same land.***

#### **5.2.4 Discrepancy in land assessment data**

As per Rule 3 of AP RFCTLARR Rules, 2014, in case of acquisition for Government, the requisition shall be filed by concerned Secretary of the Department or by an authorised person. After issuing the Preliminary Notification (PN) for acquisition of required land, the officer authorised by the District Collector (DC) shall conduct a preliminary survey of land proposed for acquisition. The DC shall make LA award within a period of 12 months from the date of publication of the declaration.

Scrutiny of LA records of 15 habitations/villages of erstwhile West and East Godavari Districts revealed that there were discrepancies in the extent and classification of land as per land requisitioned by WRD (*i.e.*, LP Schedules) and as per survey reports or land awards (of Revenue records). The discrepancies noticed were as under:

<sup>198</sup> ₹619.30 crore for the D-patta land and ₹0.53 crore for the encroachment

- (i) The extent of Patta land<sup>199</sup> (as detailed in **Appendix 5.2 (A)**) as per LP schedules of WRD was 10,050.11 acres, whereas as per Survey records of Revenue Department the total extent was 9,008.33 acres. Further, the extent of Patta land in LP schedule was shown more in 11 villages<sup>200</sup> and less in four villages<sup>201</sup> when compared to Revenue Records.
- (ii) The extent of government land (as detailed in **Appendix 5.2 (B)**) as per LP schedules of WRD was 3,885.64 acres, whereas as per Survey records of Revenue Department<sup>202</sup> the total extent was 3,186.40 acres. Further, the extent of government land was shown less in the survey records by 1,306 acres in respect of six villages<sup>203</sup> and more by 1,880.40 acres in another six villages<sup>204</sup> when compared to WRD records. The data on government land was not available with the Revenue Department for the remaining three villages<sup>205</sup>.
- (iii) The extent of D-Patta land (as detailed in **Appendix 5.2 (C)**) as per LP Schedules of WRD was zero, whereas as per Survey records of Revenue Department the total extent was shown as 3,177.29 acres.

As such, due to discrepancies in land data, there is every possibility of incorrect payment of compensation to individuals.

The Government replied (August 2024) that the WRD have submitted LP schedules as per the revenue records. Reconciliation of the land records was undertaken by the local Revenue and the Survey Department along with the WRD to ascertain the classification of land and to arrive at the final figures, which is in progress.

It is evident from the reply that the land classification is not updated completely even after 18 years from the announcement of the project. The delay in Land classification assessment may lead to complications in payment of compensation to the landowners and reimbursement of LA expenditure by GoI.

### **5.2.5 Inordinate delay in publication of Preliminary Notification and uploading in the government website**

As per Section 11 of RFCTLARR Act, 2013 and Section 4 of Land Acquisition Act, 1894, whenever it appears to the appropriate Government that land in any area is required or likely to be required for any public purpose, a Preliminary Notification (PN) to that effect along with details of the land to be acquired in rural and urban areas shall be published in the official website of the Government. Further, as per Section 19 of RFCTLARR Act, 2013, a draft declaration shall be made to that effect and the same shall be uploaded in the website of the Government.

As per Section 4 and Section 7 of RFCTLARR Act, 2013, for acquiring the required land, PN is to be issued within eight months from the start of the Social Impact Assessment. However,

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<sup>199</sup> type of land deed issued by the government to an individual or organisation

<sup>200</sup> Narlavaram, Tirumalapuram, Repakagommu, Ganugulagondi, Madipalli, Sarugudu, Koida, Thatkurugommu, Pudipalli, Yenugulagudem and Kondrukota

<sup>201</sup> Yerravaram, Telladibbalu, Sivagiri habitations and Chigurumamidi Revenue Village

<sup>202</sup> as government land does not attract payment of compensation, the same was not taken into consideration while preparing LA awards

<sup>203</sup> Narlavaram, Tirumalapuram, Repakagommu, Ganugulagondi, Madipalli and Yenugulagudem

<sup>204</sup> Sarugudu, Yerravaram, Koida, Chigurumamidi, Thatkurugommu and Pudipalli

<sup>205</sup> Kondrukota Village, Telladibbalu and Sivagiri habitations

as the dates of commencement of Social Impact Assessment for the LA cases were not available, the date of receipt of LP schedules were taken to compare the time taken for issue of PN.

To verify the time taken for issue of PN and draft declaration by the concerned Department, Audit verified<sup>206</sup> Land Acquisition cases pertaining to 30 (24 per cent) out of 123 submerged habitations under Phase-I of the project.

Audit noticed that:

- (i) No specific timelines were stipulated for publication of PN after receipt of LP schedules. There was a time gap ranging between 13 to 99 months (*as detailed in Appendix 5.3*) in publication of PN from the date of receipt of LP Schedules, in case of 20 habitations/villages<sup>207</sup> during the period September 2006 and April 2016. This ultimately led to a delay in notification of draft declaration and grant of award for the land acquired.
- (ii) The Act stipulates uploading of entire LA process from PN to draft declaration on government website. However, details of PN, draft declaration and LA Awards passed, were not uploaded on the government website.

Non-uploading of LA details in the official website of the Government creates non-transparency in Government activities.

The Government replied (November 2024) that even though LP schedules were given to the Revenue Department in 2006, the LA process was undertaken in three to four spells due to paucity of staff in the LA units. It was also replied that GoI has fixed the timeline for completion of Phase-I of the project as March 2026, with provision for one year extension. Land for R&R colonies and land to be acquired for land-to-land under Phase-I would be completed by May 2025 and December 2025 respectively. The LA automation is under consideration at Government level and the process of online module would be completed in couple of months. Further, it was replied that the online module ‘Land Acquisition and Rehabilitation & Resettlement Module (e-LARRM)’ is under progress and would be made available in public domain.

Thus, inordinate delay in publication of PN had prolonged the LA and R&R process and even after a lapse of a decade from the date of implementation of RFCTLARR Act, 2013, LA and R&R automation process was still in progress (as of November 2024) depriving the public of real-time information.

### **5.3 Declaration and passing of Land Acquisition awards**

The RFCTLARR Act, 2013 stipulates that after PN and Survey, any objections/grievances received would be resolved by LA authorities and draft declaration would be published within a period of 12 months from the date of publication of PN. After resolving objections, if any, on declaration, the District Collector shall make an award within a period of 12 months from the date of publication of the declaration provided that the appropriate Government shall have

<sup>206</sup> selected through Simple random sampling method

<sup>207</sup> under Special Deputy Collector (LA) offices at Kovvur, Eluru and Rajamahendravaram

the power to extend the period of 12 months if, in its opinion, circumstances exist justifying the same. The stages of declaration and passing of awards is shown below:

Final Declaration	• Declaration under Section 19 within 12 months from the date of Preliminary Notification
Disposal of objections	• Disposal of the objections, raised in pursuance of the public notice under Section 21
Award	• Passing of Final Award under Section 25 within 12 months from the date of Declaration

Audit noticed delays and discrepancies in declarations and land awards as discussed in the following paragraphs.

### 5.3.1 Passing of land awards without proper ownership records

As per Section 3 of the RFCTLARR Act, 2013, the ‘Landowner’ includes a person who is entitled to be granted Patta rights on the land under any law of the State including assigned land. As per Section 77(1), on making an award under Section 30, the District Collector shall tender payment of compensation awarded to the persons interested/entitled thereto according to the award and shall pay it to the landowner by depositing the amount in their bank account.

Scrutiny of LA awards passed by Special Deputy Collector (SDC), LA, Kovvur revealed that in Kondrukota Village, the names of 79 beneficiaries possessing 90.95 acres of land were included in LA awards declared (October 2010 and 2011) by the Special Collector (LA) Rajamahendravaram with survey numbers for extent of land held (as detailed in the *Appendix 5.4*).

Audit noticed that the names of the 79 beneficiaries were not traced against the said survey numbers in Revenue records (Fair Adangal and RSR (Revenue Survey Records)) produced. Also, the Department did not furnish the Pattadar Passbooks (PPB) along with any other supporting documents to prove ownership of the persons mentioned against the survey numbers concerned. In the absence of proper ownership records<sup>208</sup> and as these beneficiaries opted for cash in lieu of land-to-land, the genuineness of title is doubtful.

The Government replied (November 2024) that the then Land Acquisition Officer has passed the Awards based on the Revenue Records available with Tahsildar, Kukunoor and Velairpadu Mandals. After submission of the Title Deeds and Pattadar Passbooks by the remaining beneficiaries, the compensation was paid / R&R benefits were extended to the rightful owner in the year 2008 and 2010, after confirmation by the then LAO.

The reply is not acceptable, as the Department failed to produce the ownership records / title deeds of the 79 beneficiaries who have already availed / yet to receive the R&R benefits / compensation.

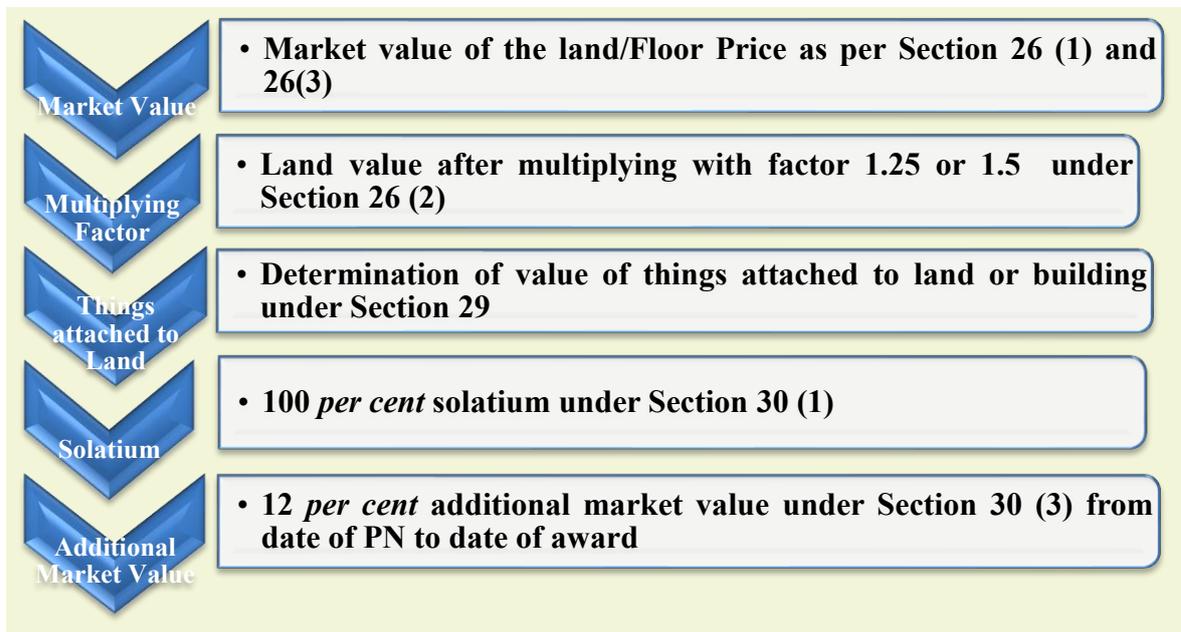
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<sup>208</sup> Fair adangal, Title Deed, Pattadar Passbooks, Tax receipts, etc.

Passing of LA awards without obtaining/verifying proper ownership records/documents was indicative of casual attitude on the part of LA authorities in collecting title deeds / ownership records to verify the correctness of landowners from whom the land is acquired.

#### 5.4 Payment of award compensation

As per Section 38 of RFCTLARR Act, 2013, after passing LA awards, the land award compensation shall be paid within three months from the date of award to all parties whose land or other immovable property or assets attached to the land or building have been acquired. In case of any disputes regarding payment, the amount shall be deposited in the LA & RR Authority<sup>209</sup> account. Sections 26 to 30 of the RFCTLARR Act, 2013 stipulates payment of following components of compensation to the ‘landowners interested’ including assigned landowners.



##### 5.4.1 Incorrect interpretation of Act provisions led to excess fixation of land compensation

As per Section 30(3) of the RFCTLARR Act, 2013, in addition to the market value<sup>210</sup> of the land (under Section 26), the District Collector shall, in every case, award an amount at 12 per cent per annum<sup>211</sup> on such market value for the period commencing on and from the date of publication of the notification of the Social Impact Assessment study to the date of the award or the date of taking possession of the land, whichever is earlier.

Audit noticed that the Department while arriving at the land compensation award amount pertaining to Toyyeru and Dandangi Villages of Devipatnam Mandal and Thutigunta and Sivagiri Villages of Polavaram Mandal, calculated (between September 2014 and May 2015)

<sup>209</sup> Land Acquisition and Rehabilitation & Resettlement Authority established under Section 51 of the RFCTLARR Act, 2013

<sup>210</sup> the market value of land is the estimated value of the land as per the records maintained by the respective State Government

<sup>211</sup>  $(\text{Market Value} \times 12 \text{ per cent}) \times (\text{Number of Days from Draft Notification to Award})/365$

12 per cent additional market value (AMV) per annum on Multiplied Market Value<sup>212</sup> instead of on 'Market Value' as shown in **Table 5.4**.

**Table 5.4: Incorrect calculation of interest on additional market value**

Sl. No.	Name of the Habitation	Award Number	Number of days between PN and Award	Extent of land (in acres)	Market Value of land per acre (in ₹)	Additional Market Value (₹ in crore)		
						To be paid	Actually paid	Excess Amount paid
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)=(H)-(G)
1.	Toyyeru- Block-2	01/2015	1,852	223.58	1,50,000	2.04	3.06	1.02
2.	Toyyeru-Block-2	02/2015	1,852	77.60	1,50,000	0.71	1.06	0.35
3.	Toyyeru-Block-3	08/2015	1,772	175.31	2,50,000	2.55	3.83	1.28
4.	Dandangai- Bit-4	04/2015	1,028	59.06	2,50,000	0.50	0.75	0.25
5.	Dandangai- Bit-4	03/2015	1,028	121.76	2,50,000	1.03	1.54	0.51
6.	Thutigunta Village	189/2012	848	110.99	2,50,000	0.77	1.16	0.39
7.	Sivagiri	11/2013	538	25.88	2,50,000	0.11	0.17	0.06
<b>Total</b>								<b>3.86</b>

Source: Information furnished by the Department

The incorrect interpretation of section 30 (3) of RFCTLARR Act, 2013 led to incorrect calculation of AMV resulting in excess payment of compensation amount by ₹3.86 crore.

The Government replied (August 2024) that clarification was issued (September 2015) regarding application of 12 per cent of AMV only on market value and not on the multiplied market value. Since then, AMV was calculated on market value only and not on multiplied market value.

During the Exit Conference, the Government accepted (November 2024) the observation and stated that the incorrect interpretation and payments happened until issue of clarification (2015) in this regard.

The reply confirms that incorrect interpretation of the Act provisions by the Department has led to an additional burden on the exchequer till receipt of clarification from the Government. However, the excess amount paid was not recovered.

#### **5.4.2 Deposit of compensation amount in the Authority Account**

As per Section 77(2) of RFCTLARR Act, 2013, if the person entitled for compensation did not consent to receive it, or if there be no person competent to alienate the land, or if there be any dispute as to the title to receive the compensation or as to the apportionment of it, the District Collector shall deposit the amount of compensation in the LA and R&R Authority (Authority) account. The Authority is a quasi-judicial body which disposes of grievances and makes payments.

##### **5.4.2.1 Non-maintenance of records of Authority Account**

Audit noticed that in Special Deputy Collector (LA) offices at Kovvur, Rajamahendravaram and Eluru, compensation amount of ₹27.38 crore pertaining to disputed/contested cases, was

<sup>212</sup> multiplying factor of 1.5 x Market Value of land

deposited (between 2015 and 2023) in the Authority account and was lying in the account for a period ranging between one and eight years (as of March 2023) without any settlement as detailed in **Table 5.5**.

**Table 5.5: Year wise amount deposited in Authority account**

Year of Deposit	Amount deposited in Authority Account (in ₹)
2015	19,66,441
2016	20,87,926
2017	80,81,747
2018	1,49,61,996
2019	24,55,11,229
2022	11,54,306
<b>Total</b>	<b>27,37,63,645</b>

Source: Information furnished by the Special Deputy Collectors (LA).

Further, the details of cases along with reasons for deposit of amount in the Authority account was not available with the Department. The WRD did not furnish relevant records/accounts pertaining to drawal and disbursal of compensation amounts of disputed cases.

In the absence of the details, Audit could not verify the details of beneficiary wise amounts deposited in Authority account and reasons for non-transfer of such amounts to the eligible beneficiary.

This shows lack of follow-up mechanism for early settlement of deposited amount to the landowners whose cases were disposed off by the LA & RR authority in accordance with provisions of the Act.

The Government replied (November 2024) that earlier the disputed amount was first deposited to LAO's account and was then transferred to the LA & RR Authority account by cheques. As certain irregularities were noticed, instructions were issued to deposit the disputed amounts directly to the Personal Deposit account of LA & RR Authority concerned. Subsequently, a separate module was created in the Comprehensive Financial Management System, wherein the disputed amounts were directly deposited to the LA & RR Authority before raising the bills in respect of disputed cases and hence, the delay occurred.

The reply is silent regarding non-transfer of amounts to the eligible beneficiaries account or refund of amount to Government account.

#### **5.4.2.2 Payment of disputed amount to ineligible landowners**

The Executive Engineer, Indira Sagar Polavaram Head Works (ISPHW) Division-5, Sitanagaram had submitted (2009) LP Schedules for acquisition of land<sup>213</sup> admeasuring 859.68 acres which were under submergence. However, the then Special Deputy Collector (SDC) Land Acquisition, PIP, has belatedly passed the awards (on various occasions during the period from 2015 to 2017) for acquisition of 859.68 acres of land and awarded a compensation of ₹55.87 crore.

As per the orders of SDC (LA), Rajamahendravaram ₹33.87 crore out of the ₹55.87 crore was deposited in Authority Account, Visakhapatnam due to Civil Miscellaneous Appeal/Settlement cases, title disputes. The balance amount of ₹22 crore was also to be deposited with

<sup>213</sup> Patta land in Sy. No. 1 to 109 of Kondamodalu Village, Devipatnam Mandal

Authority account, as there were several disputes between tribes and the non-tribes over ownership of land.

Audit observed that despite there being orders of the Land Acquisition Officer in the award passed and directions of Hon'ble High Court of Andhra Pradesh to deposit the amount to Authority account:

(a) The then SDC(LA), Chinturu had paid ₹4.81 crore to nine non-tribe farmers for the land pending adjudication of title without remitting the same to Authority account.

(b) The then Special Collector (LA), PIP, Rajamahendravaram holding the additional charge of SDC (LA), PIP LMC Unit-1, Rajamahendravaram made payments to 18 ineligible (non-tribes) farmers to a tune of ₹14.71 crore from amounts to be remitted to Authority account.

This resulted in unauthorised/illegal payment of ₹19.52 crore<sup>214</sup> (during July 2019, January and February 2022) to 27 wrongful landowners. The action proposed, if any, to recover the amount from the wrongful landowners and the action taken on the erring officials was not on record.

The Project Administrator, PIP submitted (July 2022) a detailed enquiry report to the Chief Commissioner of Land Administrator (CCLA) and requested the District Collectors concerned to initiate recovery of the amount as per the provisions of RFCTLARR Act, 2013, from the ineligible farmers and also to initiate action against the erring officials. A criminal case was booked (August 2022) against the erring officials and 27 members who have received amount on false claim. Aggrieved by the registered case, two of the 27 members filed (October/November 2022) a case in Hon'ble High Court of Andhra Pradesh. The Hon'ble Court had issued interim directions and stated that there shall be interim suspension of the impugned proceedings as prayed by the petitioners.

Audit noticed that thereafter no action has been taken by the Department for settlement of the case and recovery of amount of ₹19.52 crore from ineligible people.

The Government replied (November 2024) that the District Collector, Alluri Sitaramaraju District has directed to initiate criminal cases and invoke provisions of Revenue Recovery Act, 1884 against 27 individuals. The SDC (LA), LMC Unit-I, Rajamahendravaram issued notices to the individuals (October 2022) to remit the land compensation amount of ₹19.52 crore to the Special Deputy Collector account. An amount of ₹0.53 crore was recovered from two individuals and a balance of ₹18.99 crore is pending recovery. In the meanwhile, 14 out of the 27 individuals have filed writ petitions before the Hon'ble High Court of Andhra Pradesh, wherein interim orders were issued to suspend the impugned proceedings. In response, counter affidavits were filed for all the above-mentioned cases.

### **5.4.3 Payment of Land Acquisition compensation for ineligible land**

As per Section 38 of the RFCTLARR Act, 2013, after passing LA Awards, the land award compensation shall be paid to all parties whose land or other immovable property or assets attached to the land or building have been acquired.

#### **5.4.3.1 Payment of Land Acquisition award compensation for Khalsa land**

As per guide to Village Revenue Administration issued by Andhra Pradesh Rural Development

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<sup>214</sup> ₹4.81 crore was paid (July 2019) to nine non-tribe farmers and ₹14.71 crore to 18 non-tribe farmers

Corporation, ‘Khalsa’ denotes ‘government village’. The Khalsa land are the land seized by Government for which inami / vatan rights were abolished and are not to be alienated to others, whose ownership rights are vested in the Government. The holders of such land cannot sell Khalsa land without prior permission of Government. The State Government can permit sale only after recovering appropriate value from the seller as determined by the District Collector, and not otherwise. Hence, payment of compensation for acquisition of Khalsa land is not allowed.

Scrutiny of LA records of Special Deputy Collector (LA), Eluru revealed that compensation for Khalsa land admeasuring 363.71 acres amounting to ₹30.96 crore was paid to PDFs in Kukunoor and Velairpadu Mandals<sup>215</sup> of erstwhile West Godavari District as detailed in **Table 5.6**.

**Table 5.6: Land Acquisition compensation for Khalsa land**

Name of the Habitation	Name of the Mandal	Khalsa land acquired (in Acres)	Award Number & date	Compensation paid (₹ in crore)
Cheeravalli	Kukunoor	42.36	20/2017-18 dated 29.05.2017	4.12
Kivvaka	Kukunoor	44.04	22/2017-18 dated 29.05.2017	4.18
Damarcharla	Kukunoor	54.12	19/2017-18 dated 29.05.2017	5.55
Repakagommu	Velairpadu	129.15	13/2016-17 dated 06.03.2017	9.23
Thatkurugommu	Velairpadu	94.04	15/2016-17 dated 06.03.2017	7.88
<b>Total</b>		<b>363.71</b>		<b>30.96</b>

Source: Information provided by the Department

As the land was categorised as Khalsa land, where the rights were vested with Government, the Land Acquisition process should be on par with acquisition of Government land. Hence, payment of compensation for Khalsa land was irregular and led to extra financial burden on Government. Further, reasons for inclusion of names of individuals as landowners in Khalsa land awards were not forthcoming from the records produced to audit.

The Government replied (August 2024) that after the end of Nizam Rule in 1948, Jagirdar Abolition Act, Estate Abolition Act, Enemy Property Act and Inam Abolition Act come into force and entire land in Telangana area became Government/Khalsa land. Over a period, the occupants got the Occupancy Rights Certificate (ORC) under Section 38 E of the Hyderabad Tenancy and Agricultural Land Act, 1950. The Union of India allotted certain land to the Nizam for personal use, which were written in Blue Book. For the land not recorded in Blue Book and under the occupation of Kowldars/occupants, the Survey and Revenue Department has conducted inspection of the land and pattadar rights were sanctioned in the form of ORC. Hence, payment of LA compensation was released by the LAOs for Khalsa land, only after verification of occupancy and Patta rights sanctioned by the Revenue Authorities.

During the Exit Conference, the Government stated (November 2024) that the supporting documents for the reply furnished in August 2024 would be submitted.

<sup>215</sup> Mandals merged to Andhra Pradesh from Telangana during May 2014

However, the documentary evidence of ORC's issued/ ownership documents for the land under contention to Audit were not furnished to verify the correctness of payment of LA compensation to the genuine beneficiaries.

#### 5.4.4 Avoidable financial burden due to delay in passing of awards

Section 25 of RFCTLARR Act, 2013 stipulates that the Collector shall make an award within 12 months from the date of publication of the declaration. In case of failure, the entire proceedings for the Land Acquisition shall lapse, provided that the appropriate Government shall have the power to extend the period for 12 months if in its opinion, circumstances exist for justifying the same.

Section 24 of RFCTLARR Act, 2013 stipulates that the Land Acquisition process under LA Act, 1894 shall be deemed to have lapsed, if in any case of Land Acquisition proceedings initiated under the LA Act, 1894, where no award under section 11 of the said Land Acquisition Act has been made, then, all provisions of RFCTLARR Act, 2013 relating to the determination of compensation shall apply.

##### 5.4.4.1 Delay in passing of awards for village site along with agricultural land

As per Section 23 (2) of LA Act, 1894, in addition to the market value of the land, in every case a sum of 30 *per cent* on such market value, shall be paid for acquisition of the land. As per Section 30 of RFCTLARR Act, 2013, in addition to land compensation value a solatium of 100 *per cent* of the compensation value shall be payable to the beneficiaries.

Audit noticed that LA award proceedings in respect of eight habitations of Kondrukota Village, Polavaram Mandal was pronounced (April 2012) for 321.58 acres at a cost of ₹8.72 crore by SDC (LA) Kovvur as per LA Act, 1894. However, the compensation for structures in village site was belatedly finalised in January 2016, though LP schedules were received in the year 2007 and award for agricultural land was pronounced in April 2012. For the compensation of structures in village habitation site, award was passed (January 2016) under RFCTLARR Act, 2013.

The delay in passing eight awards for village site belatedly had resulted in a maximum avoidable financial commitment of ₹10.99 crore, as detailed in *Table 5.7*.

**Table 5.7: Statement showing additional financial commitment**

<b>(Amount in ₹)</b>		
Sl. No.	Name of the Habitation	Solatium (100 <i>per cent</i> of compensation amount + Amount allowed for standing crops + Damages) paid under section 28 of RFCTLARR Act, 2013
1.	Tallavaram	4,12,05,115
2.	Kothuru	2,05,49,127
3.	Kothuru Colony	61,33,996
4.	Vadapalli	2,35,02,576
5.	Gajulagondi	1,69,06,014
6.	Kothamamidigondi	65,56,550
7.	Madhapuram	2,11,55,182
8.	Mulagalampadu	2,09,47,211
<b>(A)</b>	<b>Total</b>	<b>15,69,55,771</b>

(B)	Consideration <sup>216</sup> admissible as per LA Act, 1894 (30 per cent of ₹15,69,55,771)	4,70,86,731
	Additional Financial Commitment (A) - (B)	10,98,69,040

Source: Data furnished by the Department

The Government replied (November 2024) that the award for agricultural land was passed in April 2012 based on Land Plan Schedules received from WRD. Subsequently, the revised LP schedule for the structures of village site was received belatedly from the WRD in February 2015. Accordingly, the Land Acquisition process was initiated, and the award was passed in January 2016 and hence, there was no delay.

The reply is silent regarding the reasons for revision of LP schedules when already award was passed in April 2012 itself. Further, the reasons for delayed submission of revised LP schedule for the structures of village site was also not furnished.

#### 5.4.4.2 Inordinate delay in passing of awards after disposal of court cases

The Executive Engineer, PIPHW Division-6, Purushothapatnam submitted (September 2007) LA requisition with SDC (LA), Rajamahendravaram for land under submergence measuring 783.52 acres<sup>217</sup> of Toyyeru Village. The Land Acquisition of Toyyeru Village was divided into three blocks<sup>218</sup> (Block-1 to Block-3).

The LA proceedings were initiated (2009) for acquisition of private land measuring 366.53 acre (Block-2) and 176.30 acres (Block-3) in Toyyeru Village by SDC (LA). The Draft Notification was issued (December 2009 and July 2010 respectively) after due approval<sup>219</sup> for both the blocks under Section 4(1) of the LA Act, 1894. Subsequently, Draft Declaration for acquiring the land of both the blocks was approved<sup>220</sup> by SDC(LA), Rajamahendravaram in December 2010.

At this stage, some of the landowners filed (2011 and 2012) writ petition<sup>221</sup> in Hon'ble High Court of Andhra Pradesh. Subsequently, all the writ petitions were disposed of in February 2013 as 'Infructuous'.

However, Audit noticed that the Land Acquisition Awards were pronounced by SDC(LA), Rajamahendravaram for Block-2 (January 2015) and Block-3 (June 2015) with a delay of 23 and 28 months respectively from the date of disposal of court cases. Due to delay in pronouncing the LA Award, the compensation for Land Acquisition was paid as per the provisions of the RFCTLARR Act, 2013 resulting in an additional financial burden of ₹11.43 crore as detailed in **Table 5.8**.

<sup>216</sup> 30 per cent solatium was calculated based on new rates (January 2016) as old rates (April 2012) were not available

<sup>217</sup> (Sy No. 1 to 130) (V), Devipatnam (M), Rampachodavaram Division

<sup>218</sup> Block-1: 167.51 acres (Sy Nos.1 to 21) which includes 141.47 acres assigned land and 26.04 acres government land, Block-2: 439.71 acres (Sy Nos.22 to 92) which includes 366.53 acres private land and 73.18 acres government land, Block-3: 176.30 acres (Sy Nos. 93 to 130) private land

<sup>219</sup> Ref. No. B1/533/2009 dated 10.12.2009 and Ref. No. B1/534/2009 dated 09.07.2010 respectively

<sup>220</sup> Ref. No. B1/533/2009 dated 15.12.2010 and Ref. No. B1/533/2009 dated 03.12.2010 respectively

<sup>221</sup> W.P. No. 5625/2011 and W.P. No. 27333/2012

**Table 5.8: Showing payment of excess compensation**

Description	(Amount in ₹)	
	Block-2	Block-3
Compensation as per Act, 2013, for one acre (A)	7,23,995	7,12,159
Compensation as per old Act (B)	4,83,099	4,75,201
Excess compensation paid for one acre (A)-(B)	2,40,896	2,36,958
Excess compensation paid for 301.17 acres <sup>222</sup> (301.17 acres x ₹2,40,896) for Block-2 (C)	7,25,50,648	---
Excess compensation paid for 176.30 acres (176.30 acres x ₹2,36,958) for Block-3 (D)	---	4,17,75,695
<b>Total excess compensation paid for Block-2 and Block-3 (C + D)</b>		<b>11,43,26,343</b>

Source: Calculated by Audit as per information provided by the Department

The Government replied (August 2024) that court cases were disposed in February 2013 and by that time new Act came into force from January 2014. Due to a delay in pronouncement of orders by Hon'ble Court there was delay in LA awards.

The reply is not acceptable, as the case was disposed of in February 2013 by Hon'ble Court, there was ample time to issue LA award prior to implementation (from January 2014) of the new Act. Due to delay in issue of LA awards there was avoidable financial burden of ₹11.43 crore on exchequer.

#### 5.4.4.3 Delay in acquisition of assigned land

As per the Land Acquisition Act, 1894, no specific provisions existed for payment of compensation while resumption of assigned land. Further, GoAP has issued<sup>223</sup> (December 1993) direction for payment of ex-gratia equivalent to the Market Value plus an additional 30 per cent of the Market Value, while resumption of assigned land for public purposes. However, additional market value paid for Patta land is not applicable in the case of assigned land.

Scrutiny of LA records of SDC (LA), Eluru revealed that land to an extent of 226.01 acres (Private land: 195.65 acres and Government land: 30.36 acres) in Katkuru habitation, Velairpadu Mandal was requisitioned through L.P. Schedules (July 2007). Out of 195.65 acres, 188.04 acres of patta land was acquired in February 2008 and acres 3.06 guntas<sup>224</sup> (3.15 acres) of assigned land was acquired belatedly in May 2017. The details regarding balance extent of private land of 4.46 acres to be acquired were not made available to audit.

Audit noticed that at the time of acquisition of patta land (February 2008) of 188.04 acres, the cost of land per acre was ₹1.15 lakh. The market rates of land of the said habitation were revised to ₹3.50 lakh per acre in February 2017. Despite receipt of LP schedules in July 2007, the acquisition for 3.15 acres was delayed and compensation was made based on RFCTLARR Act 2013 which resulted in additional burden of ₹28.37 lakh as detailed in **Table 5.9**.

<sup>222</sup> out of 366.53 acres of land, cash compensation paid for 301.17 acres and remaining 65.36 acres acquired under land-to-land

<sup>223</sup> GO Ms.No.1307, dated 23.12.1993

<sup>224</sup> acres 3.06 guntas = 3.15 acres (40 guntas = 100 cents / one acre)

**Table 5.9: Showing additional financial commitment****(Amount in ₹)**

Description	Amount paid as per RFCTLARR Act, 2013 (Solatium: 100 per cent)	Amount paid as per Government Order issued in December 1993 (Solatium: 30 per cent)
Land extent	3.15 acres	
Market value (per acre)	3,50,000	1,15,000
Total Market Value (MV)	11,02,500	3,62,250
Multiply MV with 1.5 Multiplication Factor	16,53,750	NA
Add solatium	16,53,750	1,08,675
<b>Total LA compensation to be paid</b>	<b>33,07,500</b>	<b>4,70,925</b>
<b>Avoidable financial commitment</b>	<b>28,36,575</b>	

Source: Calculated by Audit as per information provided by the Department

The Government replied (August 2024) that LA was initiated as per the contour level of submergence. The land-to-land and land for colonies acquisition shall be commenced after periodical completion of LA under submergence component. Hence, there would be no delay in the acquisition of land.

The reply is silent regarding the delay in acquisition of assigned land as the Department took more than nine years from the date of LP Schedules to date of draft declaration. This delay led to additional financial commitment of ₹28.37 lakh on the exchequer due to an increase in market value of the land.

#### **5.4.5 Payment of land compensation without validation**

As per Section 3, Section 26 to Section 30 read with the First Schedule of RFCTLARR Act, 2013, the compensation shall be calculated as per the provisions laid down under the Act and paid to all parties whose land or other immovable property or assets attached to the land or building have been acquired.

##### **5.4.5.1 Payment of compensation amount for unclaimed land**

The SDC (LA), Eluru had paid<sup>225</sup> (December 2020) LA compensation of ₹21.25 lakh to an individual<sup>226</sup> towards land compensation for two acres of unclaimed land (Survey No. 15) in Kandrika Village of Kukunoor Mandal based on LA Award<sup>227</sup> passed (June 2017) by Sub-Collector, Kukunoor.

Scrutiny of Preliminary Notification, Draft Declaration and award revealed that in the sub-division records, name of the individual was not mentioned against the unclaimed land of two acres in the said survey number. However, the basis on which the compensation was sanctioned and paid to the individual was not provided to audit.

The Government replied (August 2024) that the land was notified as unclaimed for an extent of two acres in Survey number 15 in the LA award. Subsequently, as per the proceedings of the LAO & Sub-Collector, Kukunoor compensation was paid based on the online adangal

<sup>225</sup> CFMS Bill No. 2020-946767, dated 14.12.2020

<sup>226</sup> Sri Rayani Srinivasa Rao, S/o. Bikshumaiah of Ibrahimpetta, Kukunoor Mandal

<sup>227</sup> LA Award No. 46/2017-18, dated 29.06.2017

submitted by the individual. Based on a complaint received, the Sub-Collector issued notice (April 2021) to the individual for repayment of the said amount. The individual filed a writ petition in Hon'ble High Court of Andhra Pradesh and the Hon'ble Court had granted stay on the matter.

This shows that compensation was paid without verifying the genuineness of ownership of land and which further led to court litigation.

#### **5.4.5.2 Payment of compensation without ownership records**

The SDC (LA) Eluru had sanctioned LA compensation amount of ₹53.12 lakh for land measuring five acres (Survey number 15) in Kandrika Village of Kukunoor Mandal to an individual<sup>228</sup> under LA award<sup>229</sup> passed (June 2017) by the Sub-Collector, Kukunoor.

Audit noticed that the name of the individual was not mentioned as owner of the land in the Preliminary Notification and also in the Draft Declaration. Further, in the sub-division records of Revenue Department the enjoyers' name was different<sup>230</sup> from the one mentioned in the Award.

The Department has not furnished any Title deed, Pattadar Passbook, *etc.*, to audit in support of the land title being in the name of the individual to whom the compensation amount was paid. Also, the basis on which the compensation was sanctioned to the enjoyer of the land instead of the Pattadar was not on record. Thus, the land compensation was paid to an ineligible person.

The Government replied (August 2024) that the individual to whom compensation was paid is the enjoyer of the land and individual has submitted the necessary land records in proof of the ownership of the land in Survey No. 15 admeasuring five acres. Further, the enjoyer has not raised any objection against inclusion of the individual in the award.

Thus, it is evident from the above two cases that compensation was paid without detailed verification of physical documents *viz.*, Title deeds, Pattadar Passbooks, *etc.*, to ascertain the genuineness of ownership. This injudicious action led to unwarranted litigation and payments to ineligible beneficiaries.

#### **5.4.6 Land-to-land apportionment made more than the prescribed limit**

As per Second schedule of RFCTLARR Act, 2013, the Government shall acquire land within the project benefited area. In case of irrigation project, each affected family owning agricultural land in the affected area and whose land has been acquired or lost has been reduced to the status of a marginal farmer or landless, shall be allotted a minimum of one acre of land in the command area of the project for which the land is acquired. Provided that in every project where persons losing land and belonging to the Scheduled Castes, or the Scheduled Tribes (SC/ST) would be provided land equivalent to land acquired or two and a one-half acre, whichever is lower.

Scrutiny of LA records of SDC (LA) pertaining to the villages of Sarugudu (*Appendix 5.5*), Yerravaram (*Appendix 5.6*), Telladibbalu (*Appendix 5.7*), Sivagiri (*Appendix 5.8*), Dandangi

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<sup>228</sup> Sri Rayani Srinivasa Rao, S/o. Bikshumaiah of Ibrahimpetta, Kukunoor Mandal

<sup>229</sup> LA Award No. 46/2017-18, dated 29.06.2017

<sup>230</sup> Sri Vinjamuri Thatacharyulu

(Appendix 5.9) revealed that land-to-land apportionment to SC/ST was made for full extent of land acquired *i.e.*, more than 2.50 acres in contravention to provisions of the Act as shown in Table 5.10.

**Table 5.10: Apportionment of land-to-land more than the maximum prescribed limit**

Sl. No.	Name of the Habitation/ Village	Number of Beneficiaries	Extent of Land-to-land (in acres)		
			To be given (C x 2.50 acre)	Allotted in the award	Excess extent allotted
A	B	C	D	E	F
1.	Sarugudu	15	37.50	56.74	19.24
2.	Yerravaram	40	100.00	168.23	68.23
3.	Telladibbalu	2	5.00	8.72	3.72
4.	Sivagiri	31	77.50	131.82	54.32
5.	Dandanggi	4	10.00	23.48	13.48
<b>Total</b>		<b>92</b>	<b>230.00</b>	<b>388.99</b>	<b>158.99</b>

Source: Records of respective SDC offices

The Government replied (August 2024) that the Draft Notification, Declaration and Award Enquiry was conducted under Old Act, 1894. The beneficiaries requested to allot land-to-land instead of land compensation amount, since the beneficiaries belong to Scheduled Tribes with source of income from Agriculture. As per the New LA R&R Act, 2013, the District Collector fixed floor price of ₹3.50 lakh per acre for purchase of land under land-to-land. In view of the above, either the sanction of Cash Compensation or purchase of land from other beneficiaries for allotment of land-to-land to the Tribal beneficiaries was same. Hence, on the request made by the beneficiaries, the then LAO and RDO, Jangareddigudem has awarded land-to-land compensation more than 2.50 acres. Hence there is no financial loss to the Government in allotting the land-to-land more than 2.50 acres to the Tribal beneficiaries.

The reply is not acceptable. As per new Act, 2013 provisions, the land-to-land allotment to Scheduled Caste/ Scheduled Tribe beneficiaries should be restricted to a maximum of 2.50 acres, irrespective of quantum of land acquired.

Thus, the apportionment of land-to-land in excess of 2.50 acres had caused financial loss to the Government.



# Chapter VI

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## **Implementation of Rehabilitation and Resettlement**

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## Chapter VI

### Implementation of Rehabilitation and Resettlement

The Polavaram Irrigation Project involves rehabilitation of 1,06,006 Project Displaced Families (PDFs). As of March 2014 (before declaration as a National Project), only 0.67 per cent of the total number of PDFs were rehabilitated. Even after a lapse of 17 years, the progress of R&R of PDFs is insignificant as only 11 per cent of PDFs were shifted to R&R colonies. Out of 213 R&R colonies proposed, the works of 138 R&R colonies was yet to be commenced. Out of the total land requirement of 8,581.05 acres for construction of 213 R&R colonies, only 2,756.72 acres of land was acquired. The delay in completion of rehabilitation of targeted PDFs caused an increase in estimated cost by ₹19,346.49 crore on R&R of PDFs due to increase in R&R compensation after introduction of RFCTLARR Act, 2013. None of the approved R&R Schemes were uploaded on the official website duly providing the workflow of each acquisition case.

As against the targeted expenditure of ₹7,270.41 crore for payment of R&R cash benefits to 1,06,006 PDFs, an amount of ₹841.34 crore was paid to only 14,500 PDFs. The additional R&R package to ensure payment of ₹10.00 lakh each to PDF sanctioned (₹550.00 crore) by GoAP was not released to PDFs. Out of 13,938 housing units sanctioned in 49 colonies, 11,507 units were completed and only 6,216 PDFs were shifted to completed units. In many of the completed units, the basic amenities viz., toilets, drinking water, electrical connections were not provisioned. There was unfruitful expenditure due to non-completion of compound walls to the housing and other structures. Under land-to-land allotment, there were instances of acquisition of unfit land for cultivation, short/excess allotment of land, allotment of land to ineligible beneficiaries, allotment of land more than the permissible limit. Government belatedly appointed Project Administrator in May 2020 after six years from introduction of RTFCLARR Act, 2013. There was lack of effective mechanism for speedy disposal of grievances. Department did not conduct post implementation Social Audit in any of the completed R&R colony.

#### 6.1 Introduction

Developmental projects like construction of major dams and canals require Land Acquisition, which in turn involves displacement of people from their homes. Displacement is a process by which development projects cause people to lose their land, other assets and access to resources besides causing traumatic, psychological and socio-cultural consequences. This may result in physical dislocation, loss of income and other adverse impacts. To safeguard the interest of the people displaced, a Rehabilitation<sup>231</sup> and Resettlement<sup>232</sup> process is carried out.

<sup>231</sup> Rehabilitation means restoration of the affected people to the former state

<sup>232</sup> Resettlement refers to the process of settling again in a new area

Rehabilitation and Resettlement (R&R) is a process by which those adversely affected are assisted in their efforts to improve, or at least restore their incomes and living standards.

The R&R measures are governed by the Land Acquisition Act, 1894 and the Government of Andhra Pradesh Rehabilitation and Resettlement Policy 2005 until the commencement (January 2014) of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013 by Government of India.

The RFCTLARR Act, 2013 categorically prescribes land compensation and R&R benefits<sup>233</sup> to the affected people along with basic minimum infrastructural amenities in R&R colonies. Under R&R activities, GoAP has to acquire land for construction of R&R colonies and for 'land-to-land' distribution among eligible Project Displaced Families (PDFs) whose lands were under submergence due to the project.



**Picture 6.1: Showing R&R colony**

### **6.1.1 Rehabilitation and Resettlement process**

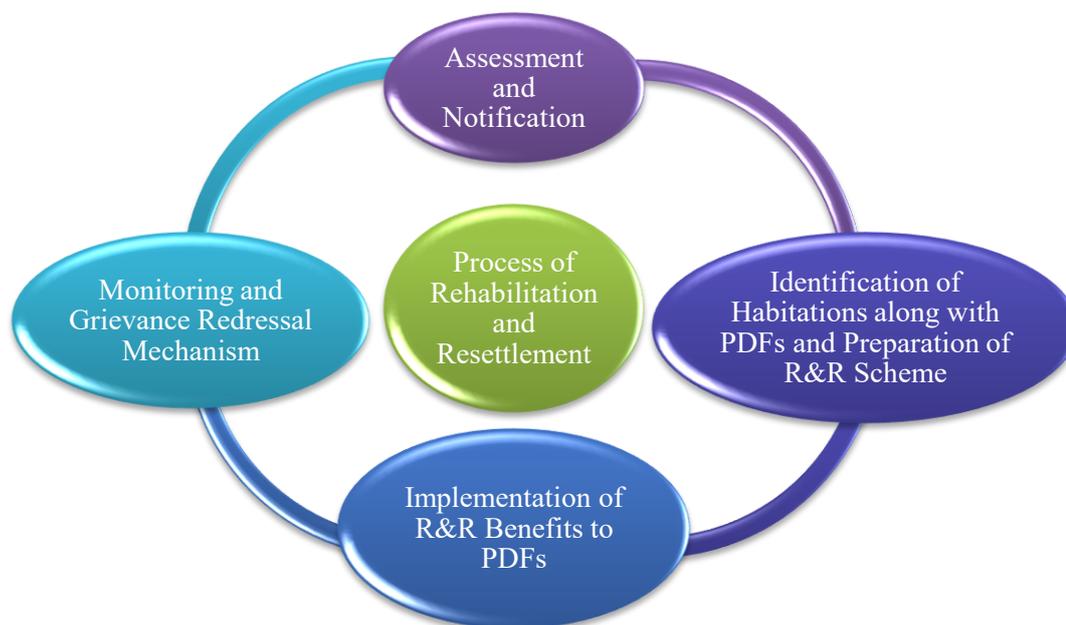
The Project Administrator (PA) and Commissioner, R&R are responsible for formulation and implementation of R&R schemes. Accordingly, R&R Officers<sup>234</sup> conduct survey for identification of PDFs<sup>235</sup> in the affected/submerged area and assess the actual requirement of land for acquisition towards R&R activities in a phased manner. The District Collector publishes R&R Scheme and pronounces awards after approval of draft declaration by Commissioner, R&R. The R&R process requires effective coordination and implementation of the activities as detailed in **Chart 6.1**.

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<sup>233</sup> First Schedule: Land Compensation, Second Schedule: R&R Benefits, Third Schedule: Infrastructure amenities in R&R colonies

<sup>234</sup> RDO Jangareddigudem, Sub-Collector Rampachodavaram, PO (ITDA), KR Puram, PO (ITDA), Chinturu

<sup>235</sup> as per provision to Section 3 of the RFCTLARR Act, 2013, an adult of above 18 years of either gender with or without spouse or children or dependents shall be considered as a separate family

**Chart 6.1: Depicting the procedure involved in R&R activities**

The PA plays a crucial role in planning and monitoring the project's progress. This involves tracking costs, assessing construction advancements, and ensuring adherence to timelines. After publication of PN by the District Collector, the PA conducts a survey and census of the affected families and prepares and implements draft R&R Scheme. The PA oversees Land Acquisition, rehabilitation efforts and construction of houses on spacious land for the affected families. The PA plays a pivotal role in ensuring the successful execution of the Polavaram Irrigation Project, from planning to implementation and community welfare.

### 6.1.2 Status of Rehabilitation and Resettlement

Polavaram Irrigation Project is a multi-purpose project which involves submergence of 373<sup>236</sup> habitations in 222 revenue villages<sup>237</sup> of erstwhile East and West Godavari Districts of Andhra Pradesh, affecting a total population of 1,88,012. The total number of PDFs was assessed as 1,06,006 which includes 56,495 tribal PDFs (approximately 53 *per cent*).

To accommodate the PDFs, a total of 213 R&R colonies were contemplated at an estimated cost of ₹13,262 crore.

To the end of March 2021, a total of 26 R&R colonies were completed at a cost of ₹131.19 crore and 3,922 PDFs were shifted. In 49 colonies which were in progress, 6,216 PDFs were shifted (March 2023). In November 2021, the PPA decided to consider R&R activities in two Phases *i.e.* Phase-I (upto Elevated Level (+) 41.15 m) and Phase-II (above (+) 41.15 m). In Phase-I, 20,946 PDFs and in Phase-II, 85,060 PDFs were proposed to be rehabilitated.

Scrutiny of records revealed that:

<sup>236</sup> 371 habitations under project submergence and two habitations (Ramannapalem in West Godavari and Nelkota in East Godavari District) affected each under alignment of Left and Right Main Canals

<sup>237</sup> including the villages in seven mandals of erstwhile Khammam District (Telangana State) transferred to residual State of Andhra Pradesh

(a) As per the records of the PA (R&R), 11,677 PDFs were rehabilitated up to Phase-I since inception of the project to till March 2023 as detailed in **Table 6.1**

**Table 6.1: Year wise Rehabilitation of Project Displaced Families**

Year	Number of Habitations	Number of PDFs Rehabilitated
Upto 2013-14	6	714
2014-15	3	485
2015-16	8	2,581
2016-17	0	0
2017-18	0	0
2018-19	0	0
2019-20	0	0
2020-21	5	503
2021-22	13	3,679
2022-23	3	3,715
<b>Total</b>	<b>38</b>	<b>11,677</b>

Source: Information provided by the Project Administrator, Polavaram Irrigation Project, Rajamahendravaram

It could be seen from the above that:

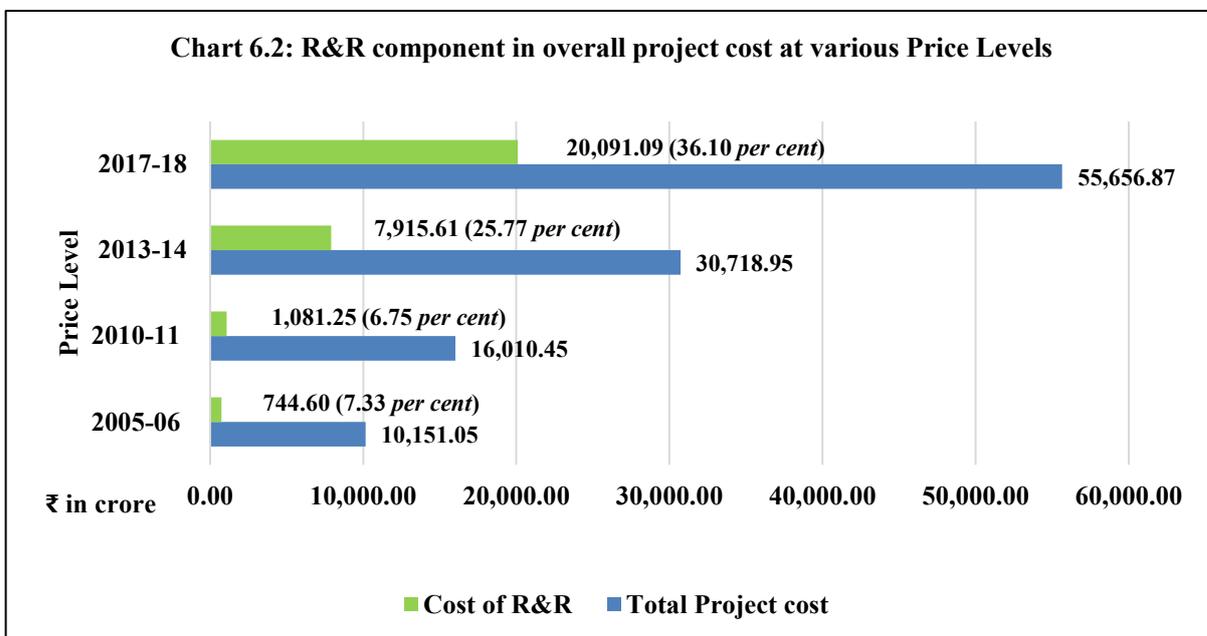
- (i) The rehabilitation of PDFs upto March 2014, was only 0.67 per cent<sup>238</sup> of the total number of PDFs to be rehabilitated.
  - (ii) Even after a lapse of 16 years (up to 2020-21) from the date of commencement of project work in the year 2004, the progress of R&R of PDFs was meagre in Phase-I (except in the year 2015-16). There was nil/insignificant progress of R&R during the period 2016-21.
- (b) Out of 213 R&R colonies proposed, the works of 138 R&R colonies planned under Phase-II costing ₹11,098.20 crore were yet to be commenced.
- (c) As a part of R&R activities, for provisioning of housing units, the 1,06,006 PDFs were given three options as under:
- Option 1: Housing unit of plinth area 379.25 Square feet (Sq.ft.) in land measuring 0.05 acres with all basic infrastructure amenities at the cost of the executing agency.
  - Option 2: As per Special Commissioner, R&R orders (July 2021), in case of self-construction of houses by non-Scheduled Tribe (ST) PDFs in R&R colony, each PDF shall be paid ₹2.85 lakh towards cost of construction, duly providing 0.05 acres vacant plot with all basic infrastructure amenities in the R&R colony.
  - Option 3: Non-ST PDFs, who have opted for self-construction of house outside the R&R colonies shall be sanctioned one time settlement of ₹3.85 lakh<sup>239</sup> along with R&R entitlements.

The number of PDFs rehabilitated as per the records of the Department was 11,677. However, PDFs shifted to 75 R&R colonies (26 completed (3,922 PDFs) + 49 in-progress (6,216 PDFs)) were 10,138. The details regarding the balance of 1,539 PDFs, whether actually shifted or yet to be shifted were not available with the Department.

<sup>238</sup> 714 PDFs out of total 1,06,006 PDFs

<sup>239</sup> ₹2.85 lakh for cost of construction of the house and ₹1.00 lakh towards house site cost

(d) The delay in completion of rehabilitation of targeted PDFs caused extra burden on R&R of PDFs due to increase in R&R compensation after introduction (January 2014) of RFCTLARR Act, 2013. As per 2<sup>nd</sup> RCC report, the estimated cost of R&R increased to ₹20,091.09 crore, an increase of ₹19,346.49 crore when compared to the 2005-06 DPR of ₹744.60 crore. The cost of R&R component in the overall project at different price levels was as shown in *Chart 6.2*.



From the above, it is evident that the estimated cost of R&R as a percentage of the overall project cost increased from 7.33 at 2005-06 Price Level to 36.10 at 2017-18 Price Level.

(e) As of March 2023, the extent of land assessed and acquired for R&R activities upto (+) 41.15 m contour level was as given in *Table 6.2*.

**Table 6.2: Details of land requirement and acquired for R&R activities**

**(in acres)**

Purpose	Extent of land assessed	Land requisitioned to Land Acquisition Officers (LAOs)	Land acquired by LAOs and handed over to R&R authorities	Balance extent of land to be acquired
Land-to-land transfer	16,870.95	16,870.95	9,053.89	7,817.06
R&R colonies	3,105.94	3,105.94	2,756.72	349.22
<b>Total</b>	<b>19,976.89</b>	<b>19,976.89</b>	<b>11,810.61</b>	<b>8,166.28</b>

Source: Information provided by the Project Administrator, Polavaram Irrigation Project, Rajamahendravaram

Out of land admeasuring 16,870.95 acres requisitioned for ‘land-to-land’ for allotment to 6,722 beneficiaries of eight mandals<sup>240</sup>, the Department could acquire 9,053.89 acres only (August 2023), leaving a balance of 7,817.06 acres yet to be acquired. Out of 9,053.89 acres, an extent of 8,478.85 acres was allotted to 3,886 beneficiaries leaving the balance land of 575.04 acres yet to be allotted.

<sup>240</sup> Polavaram, Kukunoor, Velairpadu, Devipatnam, VR Puram, Kunavaram, Yatapaka and Chinturu

As per provisions of RFCTLARR Act, 2013, the R&R activities should be completed six months prior to storage of water in the Reservoir<sup>241</sup>. As the project is scheduled for completion by March 2026, the slow progress in R&R activities indicates that the Department may not be able to impound water in the reservoir even if the Main Dam works were completed as scheduled. As the progress of R&R, since inception (2004) of project to the end of March 2023 was 11 per cent<sup>242</sup>, the achievement of balance R&R of more than 89 per cent by June 2024 seems remote.

The Project Administrator replied (December 2022) that the acquisition of land was taken up in a phased manner from dam area to higher contour submergence areas. Even after conduct of Gram Sabhas, some of the PDFs failed to produce their identity which led to delay in finalisation of R&R. Further, LA was commenced in 2007 and completed by 2011 and on introduction of RFCTLARR Act, 2013, the PDFs demanded R&R entitlements as per the new Act. The Government issued orders for gratuitous relief to the villages which were not shifted by that time and after receipt of gratuitous relief, the PDFs were shifted. Regarding contour above (+) 41.15 m, Socio Economic Survey was completed in November 2021 and draft scheme preparation is under progress. The PDFs rehabilitation process would be commenced and completed by December 2023. It was further stated that the time schedule stipulated for R&R activities would be furnished in due course.

Thus, despite the completion of Land Acquisition by 2011, the Department could not rehabilitate PDFs prior to introduction of RFCTLARR Act, 2013 which increased the cost of compensation. The reply also confirms that there was no time schedule framed to complete R&R activities before completion of the main project works to impound water in the reservoir.

During the Exit Conference, the Government stated (November 2024) that apart from the 26 colonies completed and 49 in progress, 27 more colonies are planned for the additional 17,500 PDFs identified (increase from 20,946 to 38,060) after the LIDAR survey. All these colonies are planned to be completed by March 2026, with a provision for one year extension. Regarding the completion of only 11 per cent of the rehabilitation, it was replied that most of the works in the R&R colonies have come to a standstill since 2022 and the process of providing amenities in the 49 colonies was just started.

The reply is not acceptable, as only 11,677 PDFs were rehabilitated in the past 17 years and considering the pace of construction of R&R colonies, the rehabilitation of another 26,383 PDFs (38,060 – 11,677) by March 2026 seems remote.

***Recommendation 6.1: The State Government should expedite Land Acquisition for R&R activities and fast-track the R&R activities, to relocate the Project Displace Families prior to impounding of water into reservoir.***

## **6.2 Identification of project affected habitations and displaced families**

As per Section 3 of RFCTLARR Act, 2013, displaced family means any family who on account of acquisition of land has to be relocated and resettled from the affected area to the resettlement

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<sup>241</sup> as per 2<sup>nd</sup> proviso to Section 38(1) of RFCTLARR Act, 2013

<sup>242</sup> rehabilitated PDFs/Total PDFs (11,677/1,06,006)

area. Further, as per proviso to the above Section, an adult of above 18 years of either gender with or without spouse or children or dependents shall be considered as a separate family.

### **6.2.1 Incorrect identification of habitations between contours**

Assessment of project affected habitations and displaced families is essential to arrive at the actual requirement of land for R&R activities. This was undertaken adopting different methods of survey, census, *etc.*

The Department had conducted (June 2005) detailed field survey and fixed FRL contour up to (+) 45.72 m on the ground by entrusting the work to a firm<sup>243</sup>. Based on the survey, the Department initiated acquisition of land and R&R activities under submergence in a phased manner from lower contour to higher *i.e.*, below (+) 35.00m, between (+) 35.00m to (+) 41.15m and (+) 41.15 m to (+) 45.72 m.

During floods (2020) in Godavari River, 74 habitations lying between contours of (+) 41.15 m and (+) 45.72 m, of two mandals (Velairpadu and Kukunoor) were severely affected and were submerged. In this regard the villagers had previously represented (after 2014-15) to the Government for prioritising the R&R activities and shifting of their villages in the Phase-I itself.

After floods, the PA and Commissioner, R&R requested the Government to undertake LIDAR (Light Detection and Ranging) survey to identify the precise location and elevation of habitations under submergence, so as to arrive at the number of habitations lying below (+) 41.15 m contour and above (+) 41.15 m. Accordingly, the Government accorded<sup>244</sup> (May 2021) approval for conduct of LIDAR survey to a firm<sup>245</sup> (July 2021) at a cost of ₹1.85 crore.

Scrutiny of records of PA revealed that after LIDAR Survey, nine (five<sup>246</sup> fully + four<sup>247</sup> partially submerged) out of the affected 74 habitations with 1,038 PDFs were preliminarily identified as, submergence affected, below (+) 41.15 m contour. The PA addressed (October 2022) the Government for prioritising and initiation of R&R process in these nine habitations by conducting Gram Sabhas, publishing the list of PDFs and completion of R&R colonies.

Neither the report of survey conducted during 2005 nor the LIDAR survey report of 2022 were made available to audit, due to which the genuineness of the categorisation of villages for below (+) 41.15 m and above (+) 41.15 m contours could not be verified.

Thus, nine habitations which actually fall below (+) 41.15 contour as identified by LIDAR survey were incorrectly identified as above (+) 41.15 contour level based on the earlier surveys due to which R&R activities were not taken-up for these habitations. Due to the delayed taking-up of LIDAR survey after 17 years of commencement of the Project works, the habitations which fall under (+) 41.15 m contour but not recognised by the Department earlier had suffered immensely due to floods and submergence issues.

The Government replied (August 2024) that LIDAR survey was conducted for establishing the highly accurate and precise contour of (+) 45.72 m with buffer zone up to (+) 2 m and to

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<sup>243</sup> M/s Vision Labs, Hyderabad

<sup>244</sup> GO Ms. No.162 WR (Proj.I) Department dated 27.05.2021

<sup>245</sup> M/s IIC Technologies Private Limited, Hyderabad

<sup>246</sup> Kakisnoor, Pedamanukollu, Tekuru, Perantalapalli and Tekupalli

<sup>247</sup> Thurpumetta, Kacharam, Yerrametta and Yadavalli

correlate the contours with the submergence habitations at different contours. Based on the LIDAR Survey Report and followed by Joint Inspection by Revenue, WRD, PPA Officials and third-party evaluation by WAPCO'S, additional 48 habitations were identified as impacted under (+) 41.15 m Contour Level. These 48 habitations, which were earlier kept under Phase-II were now prioritised under Phase-I (below (+) 41.15 m). The Preliminary Notification was issued and the Socio-Economic Survey (SES) for these 48 priority habitations was completed and currently, the draft R&R Scheme preparation is under progress.

During the Exit Conference, the Government stated (November 2024) that though the earlier survey was conducted accurately, the intermittent levels like access roads, bridges, *etc.*, were ignored. These were identified only during the floods of 2019-20 and hence the LIDAR survey was planned for identification of all the shortcomings. Now, the survey is completed, and rehabilitation of the newly identified PDFs would be completed before the Phase-I deadline.

The reply confirms that the identification of habitations below (+) 41.15 m contour during 2005 was inaccurate/ fallacious, which led to submergence of habitations.

### 6.2.2 Inconsistency in data on Project Displaced Families

As per Section 38(2) of RFCTLARR Act, 2013, the District Collector shall be responsible for ensuring that R&R process is completed in all respects before displacing the affected families. Further, as per the provisions of 'Second Schedule' of the Act, the displaced PDFs can opt for any one of the three options (*refer Para 6.1.2 (c)*) provided by the Government, in lieu of the house lost due to Land Acquisition.

The Commissioner, R&R, Vijayawada has furnished the following information, as of March 2017<sup>248</sup>, regarding PDFs in PIP as detailed in **Table 6.3**.

**Table 6.3: Showing details of PDFs' rehabilitated as of March 2017**

Contour Level (in metre)	Storage Capacity at Contour level (in TMC)	Total number of PDFs to be rehabilitated		Number of PDFs rehabilitated		Balance number of PDFs to be rehabilitated	
		Number of Villages	Number of PDFs	Number of Villages	Number of PDFs	Number of Villages	Number of PDFs
(+) 35.00	30	27	9,204	15	4,069	12	5,135
(+) 41.15	120	64	11,552	-	Nil	64	11,552
(+) 45.72	194	280	84,845	-	Nil	280	84,845
<b>Total</b>		<b>371</b>	<b>1,05,601</b>	<b>15</b>	<b>4,069</b>	<b>356</b>	<b>1,01,532</b>

Source: Report No.4 of 2018 of CAG Audit Report

As per the records of PA, the latest status of PDFs rehabilitated as of March 2023 was as detailed in **Table 6.4**.

<sup>248</sup> Para No. 2.1.9.2 (ii), Report No.4 of 2018 of CAG Audit Report

**Table 6.4: Rehabilitation of PDFs’ as of March 2023**

Contour Level (in metre)	Total number of PDFs to be rehabilitated		Number of PDFs rehabilitated		Balance number of PDFs to be rehabilitated	
	Number of Habitations	Number of PDFs	Number of Habitations	Number of PDFs	Number of Habitations	Number of PDFs
(+)35.00	58	9,612	28	7,701	30	1,911
(+)41.15	65	11,334	10	3,976	55	7,358
(+)45.72	250	85,060	0	0	250	85,060
<b>Total</b>	<b>373</b>	<b>1,06,006</b>	<b>38</b>	<b>11,677</b>	<b>335</b>	<b>94,329</b>

Source: Records of Project Administrator, Polavaram Irrigation Project, Rajamahendravaram

Audit noticed that:

(i) As per the information furnished by the PA, 3,780 PDFs were rehabilitated upto March 2017 (refer Table 6.1). However, as per data furnished (March 2017) by Commissioner, R&R 4,069 PDFs were rehabilitated. Thus, there was variation in data furnished by PA and Commissioner, R&R.

(ii) As per information provided by Commissioner, R&R, a total of 371 habitations (91 habitations upto (+) 41.15 m and 280 habitations above (+) 41.15 m contour) would be submerged upto FRL (Refer Para No. 2.1.9.2 (ii), Report No.4 of 2018 of CAG Audit Report) displacing 1,05,601 PDFs. However, as of March 2023, it was reported that a total of 373 habitations (123 habitations upto (+) 41.15 m and 250 habitations above (+) 41.15 m contour) would be affected while displacing 1,06,006 PDFs.

Thus, there was mismatch of habitations between contours and PDFs to be rehabilitated, due to which audit could not ascertain the conformity of the figures and optimality of R&R activities taken up.

The Government replied (August 2024) that the reasons for variations between figures submitted during March 2017 and now, is that the PA, PIP office was commenced in 2020 and the figures reported (March 2017) by the Commissioner, R&R were tentative, as SES survey for (+) 41.15 m contour level was completed in December 2017. Further, for the differences in habitations under submergence and PDFs displaced, it was replied that 371 habitations would be submerged upto FRL and two more habitations would be displaced due to alignment under LMC & RMC. The variation between the PDFs was due to the addition of two habitations. It was also replied that SES for above (+) 41.15 m contour habitations were completed in 2022 and hearing of objections under Section 16 of RFCTLARR Act, 2013 for preparation of draft R&R scheme is under progress.

The authenticity of data maintained regarding R&R of PDFs could not be ensured as the data is varying at every stage of R&R activity and there is no consistency in the data produced to audit.

### **6.2.3 Delay in completion of census after issuing Preliminary Notification**

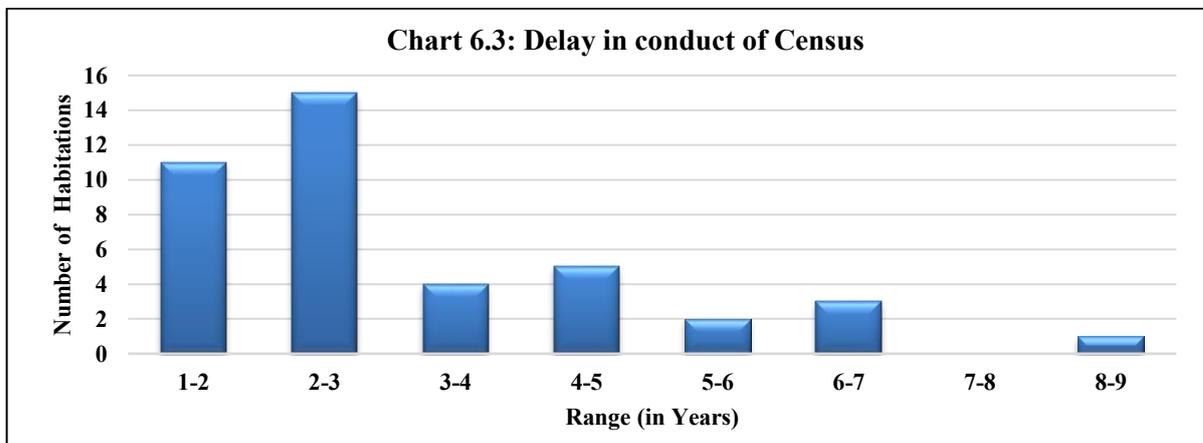
Section 16(1) of RFCTLARR Act, 2013 stipulates that upon publication of the Preliminary Notification by the District Collector, the PA shall conduct a survey<sup>249</sup> and undertake a census of the affected families, in such manner and within such time as may be prescribed. Section

<sup>249</sup> land and immovable properties being acquired of each affected family, livelihoods lost in respect of land losers, amenities and infrastructural facilities which are affected or likely to be affected

19(2) stipulate that the District Collector shall publish a summary of R&R Scheme along with declaration within a period of 12 months from the date of publication of Preliminary Notification (PN). Further, Section 19(7) stipulates that where no declaration is made within 12 months from the date of Preliminary Notification, then such notification shall be deemed to have been rescinded. Also, Socio Economic Survey (SES) should be conducted before the publication of R&R scheme.

Scrutiny of records of the PA revealed that PN were published (between June 2009 to August 2017) for village sites of 77 habitations and SES was completed (between January 2017 to November 2021) for 351 habitations. However, the details of PNs for balance 296 (373-77) habitations and information regarding conduct of SES for balance 22 habitations (373-351) was not furnished to audit.

Audit noticed that the date of completion of SES from date of publication of PN exceeded the prescribed timeline of 12 months in 41 out of 77 habitations as shown in **Chart 6.3** which was in contravention to the provisions of RFCTLARR Act, 2013.



The delay between the date of PN and date of SES was ranging between one to nine years (duly deducting the 12 months as provided in the Act) as detailed in **Appendix 6.1**. This indicates that the timelines stipulated in RFCTLARR Act, 2013 were not adhered to for completion of declaration within 12 months from the date of PN as SES was not completed within the time.

The Government accepted (August 2024) that there was delay in conduct of SES against the stipulation of conduct of the same within one year from the date of publication of PN.

Non-adherence to prescribed timelines results in undue delay in payment to beneficiaries causing social distress along with delayed completion of R&R process with resultant time and cost overrun of the project.

#### **6.2.4 Timelines for implementation and creation of web-based workflow of R&R scheme**

##### **6.2.4.1 Implementation of R&R Schemes without time frame**

As per Section 16 (2) & (3) of RFCTLARR Act, 2013, the PA shall, based on the survey and census prepare a draft R&R Scheme which shall include details of R&R entitlements of each landowner and landless whose livelihoods are primarily dependent on the land being acquired and where resettlement of affected families is involved. Further, the draft R&R scheme prepared by PA shall include time limit for implementation of the scheme. The draft scheme

prepared by PA shall be reviewed by District Collector and subsequently forwarded to Commissioner, R&R for approval.

Scrutiny of records revealed that the Commissioner, R&R has approved (between October 2017 to February 2021) 97 R&R schemes benefitting 16,967 PDFs. However, Commissioner, R&R has not detailed out the time frame for implementation of R&R scheme.

The Department stated (September 2022) that as per Section 38(1) of RFCTLARR Act, 2013, the R&R shall be completed within six months prior to submergence and effective steps are being taken to complete the R&R activities before impounding of water in the reservoir.

The reply is not acceptable, as the Act 2013, specifically emphasises for the time frame for implementation of schemes.

Reply from the Government is awaited (November 2024).

#### **6.2.4.2 Creation of web-based workflow for R&R activities**

Section 18 of RFCTLARR Act, 2013 stipulate that the Commissioner shall cause the approved R&R scheme to be made available in the local language to the Rural/Urban Local Bodies and shall publish in the affected areas. Further, R&R scheme shall be uploaded on the website of the appropriate Government. Rule 16 of AP RFCTLARR Rules, 2014 stipulate that the Commissioner, R&R shall create a dedicated, user-friendly website that may serve as a public platform on which the entire workflow of each acquisition case would be hosted, beginning with the notification of the Social Impact Assessment (SIA) and tracking each step of decision making, implementation and audit.

Audit noticed that none of the approved 97 R&R Schemes were uploaded in the official website<sup>250</sup> of Project Administrator R&R, PIP duly providing the workflow of each acquisition case.

The Government replied (August 2024) that the R&R schemes and awards are available on website<sup>251</sup>.

The reply is incorrect, as the said website does not exhibit any details about the R&R scheme and awards passed / given.

#### **6.2.5 Non-inclusion of basic data in R&R scheme**

As per Section 3(m) of the RFCTLARR Act, 2013, an adult of 18 years or more of either gender with or without spouse or children or dependents shall be considered as a separate family for the purpose of availing R&R facilities.

Scrutiny of records revealed that in Vadapalli Village of Polavaram Mandal, R&R cash benefits of ₹13.52 crore was sanctioned (October 2020) to 194 PDFs (Scheduled Tribe:165 PDFs and non-Scheduled Tribe: 29). Out of ₹13.52 crore, ₹10.19 crore<sup>252</sup> (September 2022) was paid to PDFs.

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<sup>250</sup> <https://www.polavaramrr.ap.gov.in/>

<sup>251</sup> <https://www.polavaramrr.ap.gov.in/publicinformationtoaccess>

<sup>252</sup> Bill No.2021 - 835875 for 100 PDFs: ₹6.75 crore + Bill No.2021 - 940626 for 28 PDFs: ₹1.94 crore and Bill No.2021 - 1219242 for 23 PDFs: ₹1.51 crore

Audit noticed that:

- (i) In the data furnished by the Revenue Authorities, in approved R&R Scheme and Awards passed, the information regarding the age of PDFs was not available. Hence, Audit could not ascertain whether the compensation was paid to the eligible individuals who were above 18 years or not.
- (ii) In order to avail R&R compensation and for validation/identification of PDF, all the PDFs shall submit Ration Card or Aadhaar details. However, Audit noticed that in the approved R&R Scheme, the Ration card or Aadhaar details in respect of 22 PDFs were not available. As such, Audit could not ascertain whether the compensation amounts were disbursed to genuine beneficiaries.
- (iii) Data relating to SES conducted for verification of genuineness of PDFs and their assets was also not furnished to audit, due to which audit could not cross-verify SES data with the approved R&R scheme and the Award passed.

The Government replied (August 2024) that the R&R scheme and Awards were prepared as per Form-X prescribed in the AP RFCTLARR Rules, 2014 read with RFCTLARR Act, 2013. The information regarding the age of PDFs is shown in the SES data and based on which the R&R awards are being passed. To validate/identify the affected families in the habitation, the Aadhaar card and Ration cards details were referred as primary documents. However, for some PDFs who were not having/lost Aadhaar and Ration card, enquiry was conducted by the concerned Tehsildar, followed by concerned R&R Officer and if found eligible, then names were added to the R&R Scheme. Further, all the eligibility details of the affected families are placed before the Gram Sabha, calling for objections and duly considering the objections, R&R Schemes are being prepared.

Though the Government replied that the details were verified by the concerned Revenue officials / R&R Officers and validated in the respective Gram Sabhas, the verified data was neither clubbed / attached with the Award nor made available to audit, due to which the authenticity of the basic data / disbursement of compensation to the genuine beneficiaries could not be ensured.

### **6.3 Implementation of Rehabilitation & Resettlement Benefits**

The Second Schedule<sup>253</sup> of RFCTLARR Act, 2013 extends the following elements of R&R entitlements for all the affected families (both landowners and the families whose livelihood is primarily dependent on land acquired).

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<sup>253</sup> sections 31(1), 38(1) and 105(3) of RFCTLARR Act, 2013

Housing Unit	Land	Cash Benefits	Other Benefits
<ul style="list-style-type: none"> <li>Provision of housing units in case of displacement</li> </ul>	<ul style="list-style-type: none"> <li>Land-to-land to the extent eligible as per Act/Rules.</li> <li>Developed land.</li> </ul>	<ul style="list-style-type: none"> <li>Cash benefits like Choice of Annuity or Employment.</li> <li>Subsistence grant for displaced families for a period of one year.</li> <li>Transportation cost for displaced families.</li> <li>Cattle shed/Petty shops cost.</li> <li>One-time grant to artisan/small traders/others.</li> <li>One-time Resettlement Allowance.</li> </ul>	<ul style="list-style-type: none"> <li>Fishing Rights to the eligible families.</li> <li>Stamp Duty and Registration Fee.</li> </ul>

The Third Schedule extends 25 basic minimum infrastructural amenities to be provided in the R&R colonies at the cost of the Requisitioning Authority to ensure that the resettled population in the new village or colony can secure a reasonable standard of community life. The amenities include provisioning of internal roads within the resettled villages and an all-weather external road with link to the nearest pucca road, proper drainage as well as sanitation plans, assured sources of safe drinking water, drinking water for cattle, *etc.*

### 6.3.1 Land Acquisition for R&R activities

#### 6.3.1.1 Pending acquisition of land for R&R colonies

The R&R benefits to be compensated as per Revised Cost Committee (RCC) report at 2017-18 Price Level were as detailed in *Table 6.5*.

**Table 6.5: R&R entitlements at 2017-18 Price Levels**

Category	2017-18 Price Level (₹ in crore)	
	Quantity	Cost
Construction of houses (in number)	1,05,505	3,275.95
R&R benefits <sup>254</sup> (in number)	1,05,505	6,735.41
Infrastructure (in number)	1,05,505	7,235.02
Land for R&R colonies (in acres)	8,581.05	1,089.38
Land to land (in acres)	26,729.92	2,939.81

Source: Revised Cost Committee Report 2017-18 PL

As per RCC report, the total land required for construction of 213 R&R colonies at 2017-18 PL was 8,581.05 acres. Of this, an extent of 2,756.72 acres (32 per cent) was acquired, leaving a balance extent of 5,824.33 acres yet to be acquired.

Due to non-acquisition of total required land for R&R colonies, there was delay in completion of R&R colonies and rehabilitation of PDFs to the respective colonies. Further, the reasons for

<sup>254</sup> choice of annuity, subsistent grant, transportation cost for displaced families, compensation for cattle shed/petty shop, one time grant to artisan, small traders, *etc.*

non-acquisition of balance land for R&R colonies and the timelines for completing the same were not forthcoming from the records produced to audit.

The Government replied (August 2024) that out of an extent of 8,872.47 acres to be acquired for construction of R & R colonies, the land measuring 3,102.14 acres was acquired leaving a balance of 5,767.26 acres. Out of 5,767.26 acres, the acquisition of 1,443.59 acres pertaining to Phase-I was at different stages<sup>255</sup>. It was also replied that the LAOs were instructed to complete the balance LA process for Phase-I before January 2025. Further, it was also replied that the process for LA of the balance land of 4,326.74 acres for Phase-II would be initiated after completion of Phase-I LA process.

From the reply of the Government, it was evident that the requirement of land to be acquired was increased by 291.42 acres. However, the reason for the increase in requirement was not furnished to audit.

### 6.3.1.2 Acquisition of unfit land for cultivation

Audit noticed that the Special Deputy Collector (LA), PIPLMC<sup>256</sup>, Unit-I, Rajamahendravaram acquired (2017) land to an extent of 69.53 acres for allotment under land-to-land to eligible PDFs, declared (2017) under six LA Awards<sup>257</sup> pertaining to five villages in Devipatnam Mandal.

The Deputy Inspector of Survey, Rampachodavaram had reported (August 2018) that out of 69.53 acres, 40.47 acres were handed over to the beneficiaries and the balance 29.06 acres was unfit for cultivation. The tribal land losers did not accept the land unfit for cultivation. The Sub-Collector, Rampachodavaram while reporting<sup>258</sup> (August 2018) the above issue to the Joint Collector & Project Administrator (R&R), PIP, Kakinada, requested to take necessary action.

Despite lapse of more than five years from pronouncement of awards, no efforts were made to allot alternate land to the beneficiaries. Further, the unsuitable land acquired at a cost of ₹2.24 crore, as detailed in **Table 6.6**, has remained idle for the last five years.

**Table 6.6: Details of land which is unfit for cultivation**

(Extent of land in acres)

Sl. No.	Village & Award Number	Total extent acquired	Already handed over	Fit for cultivation	Unfit for cultivation	Cost per Acre (in ₹)	Wasteful expenditure (₹ in crore)
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)= (F) X (G)
1.	Indukuru, 06/2017 and 17/2017	13.68	1.57	7.89	4.22	7,70,219	0.33
2.	Pedabhimpalli 03/2017	9.25	2.23	1.54	5.48	7,72,521	0.42
3.	Sarabhavaram, 09/2017	12.39	0.00	0.00	12.39	7,63,233	0.95
4.	Lothupalem, 14/2017	20.15	12.92	1.57	5.66	7,70,712	0.44
5	Indukurupeta, 05/2017	14.06	12.75	0.00	1.31	7,63,397	0.10
	<b>Total</b>	<b>69.53</b>	<b>29.47</b>	<b>11.00</b>	<b>29.06</b>		<b>2.24</b>

Source: Information as furnished by the Department

<sup>255</sup> PN stage: 1,319.41 acres; Declaration stage: 17.24 acres; Award stage: 75.54 acres and Award passed & pending Payment stage: 31.40 acres

<sup>256</sup> Polavaram Irrigation Project Left Main Canal

<sup>257</sup> Indukuru (Award Nos. 6/2017, 17/2017), Pedabhimpalli (Award No. 3/2017), Sarabhavaram (Award No. 9/2017), Lothupalem (Award No. 14/2017), Indukurupeta (Award No. 5/2017)

<sup>258</sup> RC No. G/R&R/77/2018 dated 16.08.2018

The Government replied (November 2024) that pursuant to joint inspection report led by Deputy Inspector of Survey, 6.05 acres out of 69.53 acres was deemed unfit for cultivation. It was reported that certain areas were covered in rock formation and tank. Consequently, the issues of the specific land were brought to the notice of officer concerned to make it fit under Mahatma Gandhi National Rural Employment Guarantee Scheme. After completion, the land would be allotted to the PDFs.

### 6.3.1.3 Non-provisioning of amenities to R&R colonies

The Joint Collector and Project Administrator, PIP, East Godavari District instructed (March 2021) all the Executive Engineers executing R&R works in East and West Godavari Districts to incorporate the amenities suggested by user Departments and modify the infra<sup>259</sup> items in revised DPRs for the ongoing R&R colonies.

Scrutiny of revised DPR data revealed that in some of the R&R colonies of East and West Godavari Districts, the minimum prescribed infrastructure items mentioned in Third Schedule were stated as ‘No Need’ as detailed in *Table 6.7*.

**Table 6.7: Amenities mentioned as ‘No Need’ in DPRs of R&R colonies**

Infrastructure items	East Godavari District	West Godavari District
	Number of colonies: 16	Number of colonies: 32
	Number of colonies in which the Infra item was stated as ‘No Need’	
Veterinary Hospital	12	25
Fertiliser/ Rythu Bharosa Kendram	15	17
Health Centre	11	11
Anganwadi Centre	2	0
Post Office	7	25
Panchayat Buildings	15	25
Community Halls	2	19
Cremation Places	3	10
Sanitation & Sewerage	14	23
School buildings	1	10

Source: Records of the O/o The Project Administrator, Rajamahendravaram

It was not forthcoming from the records of the Project Administrator, why the Department had described the essential infra items as ‘No Need’ and had not provided the minimum amenities required as per the provisions of RFCTLARR Act, 2013.

The Department replied (December 2022) that the infrastructure facilities and amenities in R&R colonies were provided to the maximum extent of reimbursable limit of ₹6.52 lakh per PDF fixed by GoI. Any of the facilities that are existing nearby the colonies are excluded stating “No need” after consultation with the line Departments during the convergence meeting and finalised by the Project Administrator.

The reply is not acceptable, as the Department has not provided the location and the distance at which these amenities are available in the surrounding areas of R&R colonies to ascertain that there is no requirement for these amenities in the R&R colonies.

<sup>259</sup> Veterinary hospital, Rythu Bharosha Kendras, Health Centre, Anganwadi Centre, Post Office, Panchayat buildings, community halls, cremation places, sanitation & sewage, school building

During the Exit Conference, the Government stated (November 2024) that the amenities were decided as 'No Need' based on the Revenue Divisional Officers' reports. The stock of the situation as pointed by Audit would be taken and the latest position would be updated/intimated.

The Department has submitted (November 2024) certain documents<sup>260</sup> of the existing amenities nearby the R&R colonies, in support of the 'No Need' claim and stated that these amenities were within the range of three kilometres from the R&R colonies.

On analysing the geographical locations with respect to the R&R colonies, Audit noticed that some of the amenities stated to be within three kilometres from the R&R colonies were actually located at a distance of more than six to seven kilometres.

### **6.3.2 Land Acquisition towards land-to-land**

Second schedule of the RFCTLARR Act, 2013, stipulate that in lieu of compensation to be paid for land acquired, each affected family owning agricultural land<sup>261</sup> whose land has been acquired or lost and who has been reduced to the status of a marginal farmer or landless, shall be allotted, in the name of each person included in the records of rights with regard to the affected family, a minimum of one acre of land in the command area of the project for which the land is acquired. In the case of persons belonging to Scheduled Castes or Scheduled Tribes, losing land would be provided land equivalent to land acquired or two and a one-half acre, whichever is lower.

#### **6.3.2.1 Allotment of land under land-to-land**

For 81 beneficiaries<sup>262</sup> identified in six villages of West Godavari District under 'land-to-land' scheme, a total of 192.61 acres<sup>263</sup> were acquired. Audit noticed discrepancies in the allotment process as under:

(i) Under 'land-to-land' scheme, an extent of land measuring 52.45 acres was requisitioned for allotment to 16 beneficiaries<sup>264</sup>. However, an extent of land admeasuring 65.24 acres was allotted (beneficiary-wise allotment detailed in *Appendix 6.2*), thereby resulting in excess allotment of 12.79 acres as shown in *Table 6.8*.

(ii) Under 'land-to-land' scheme, an extent of land admeasuring 77.24 acres was requisitioned for 22 beneficiaries<sup>265</sup>. However, an extent of land admeasuring 37.80 acres only was allotted (as detailed in *Appendix 6.3*), thereby allotting 39.44 acres lesser as shown in *Table 6.8*.

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<sup>260</sup> Photographs and geographic location of the existing amenities

<sup>261</sup> Section 3 of RFCTLARR Act, 2013 "agricultural land" means land used for the purpose of agriculture or horticulture, dairy/poultry farming, pisciculture, sericulture, seed farming breeding of livestock or nursery growing medicinal herbs, raising of crops, trees, garden produce and land used for the grazing of cattle

<sup>262</sup> Sivagiri (34) + Thutigunta, Yerravaram and Sarugudu (21) + Tallavaram and Vadapalli (26)

<sup>263</sup> Tallavaram and Vadapalli (26 beneficiaries, 62.10 acres of land) +Thutigunta, Yerravaram and Sarugudu (21 beneficiaries, 48.76 acres of land) + Sivagiri (34 beneficiaries, 81.75 acres)

<sup>264</sup> Sivagiri (5) + Thutigunta, Yerravaram and Sarugudu (8) + Tallavaram and Vadapalli (3)

<sup>265</sup> Sivagiri (18) + Thutigunta, Yerravaram and Sarugudu (2) + Tallavaram and Vadapalli (2)

**Table 6.8: Details of excess/less extent of Land-to-land allotted than the land acquired (in acres)**

Sl. No.	Habitation	Number of beneficiaries	Extent of land acquired as per LA Awards	Extent of land-to-land allotted	Excess/less extent of land allotted towards land-to-land
<b>Excess extent of land-to-land allotted</b>					
1.	Sivagiri	5	17.73	22.47	4.74
2.	Thutigunta (ST community)	8	26.27	33.54	7.27
3.	Tallavaram (ST community)	2	2.57	3.07	0.50
4.	Vadapalli (ST community)	1	5.88	6.16	0.28
<b>Total</b>		<b>16</b>	<b>52.45</b>	<b>65.24</b>	<b>12.79</b>
<b>Lesser extent of land-to-land allotted</b>					
1.	Sivagiri	18	64.57	29.68	34.89
2.	Thutigunta-ST	2	1.91	1.56	0.35
3.	Vadapalli-ST	2	10.76	6.56	4.20
<b>Total</b>		<b>22</b>	<b>77.24</b>	<b>37.80</b>	<b>39.44</b>

Source: Information furnished by the Department

Thus, allotment of land to PDFs under ‘land-to-land’ scheme was not in line with acquisition/requisition made for land requirement. The reasons for discrepancy and action taken to rectify the allotment of land was not on record.

The Government replied (August 2024) that some land losers in the villages have already received the land-to-land for their land more than 2.50 acres previously as per the L.A. Act, 1894. Hence the villagers of Sivagiri Village of Polavaram Mandal has also requested to issue land-to-land benefits as issued previously for their land under acquisition. Hence, on the request made by the (31) beneficiaries, the then L.A.O and Special Deputy Collector (L.A), PIPRMC, Unit-I, Kovvur has awarded land-to-land compensation more than 2.50 acres.

During the Exit Conference, the Government stated (November 2024) that the excess land was allotted to the beneficiaries on their request in lieu of the cash compensation, as the land was acquired at a cost of ₹2.5 lakh per acre, whereas the land compensation is to be paid at ₹ 3.5 lakh per acre. As such there was no burden on the exchequer. In some cases, the beneficiaries requested for cash compensation instead of the land allotment.

The reply is not acceptable. Allotment of excess land in lieu of cash compensation is against the provision of the Act, 2013. Obliging to these requests in the current circumstances might complicate the Land Acquisition process.

### 6.3.2.2 Allotment of land-to-land to ineligible beneficiaries

Out of 143 beneficiaries<sup>266</sup> to whom land was allotted under ‘land-to-land’ scheme by Revenue Divisional Officer, Jangareddigudem, 95 beneficiaries<sup>267</sup> as detailed in **Table 6.9**, were allotted land measuring 166.52 acres though their names were not included in the Land Acquisition Awards (as detailed in **Appendix 6.4**).

<sup>266</sup> Sivagiri (56) + Thutigunta, Yerravaram and Sarugudu (87)

<sup>267</sup> Sivagiri (22) + Thutigunta, Yerravaram and Sarugudu (2+34)+ Tallavaram, Vadapalli (2+35)

**Table 6.9: Allotment of land under land-to-land to ineligible persons**

Sl. No.	Name of the Habitation	Number of beneficiaries	Extent of land-to-land given (in acres)
1.	Sivagiri	22	35.55
2.	Thutigunta	2	6.44
3.	Yerravaram	34	67.67
4.	Tallavaram	19	26.15
5.	Vadapalli	18	30.71
<b>Total</b>		<b>95</b>	<b>166.52</b>

Source: Information furnished by the Department

The Government replied (August 2024) that in case of death of PDF concerned, the land was allotted to their legal heirs after due enquiry and hence there is no discrepancy in respect of awardee names in land-to-land allotment orders.

The documentation in support of the reply was not provided to Audit. Further, the reply seems to be suspicious as 95 death cases were being reported out of 143 allottees.

### 6.3.2.3 Allotment of land more than the permissible limit

Scrutiny of records revealed that in respect of the 49 ST beneficiaries (as detailed in *Appendix 6.5*), the land-to-land was allotted more than the prescribed limit of 2.50 acres as detailed in *Table 6.10*.

**Table 6.10: Allotment of land in excess of the permissible limit**

Sl. No.	Name of the Habitation	Number of beneficiaries	Maximum permissible extent of land can be given	Extent of land-to-land allotted	Excess extent of land allotted (in acres)
A	B	C	D= (C) x 2.50 acre	E	F
1.	Sivagiri	12	30.00	55.12	25.12
2.	Thutigunta	22	55.00	94.86	39.86
3.	Yerravaram	15	37.50	60.64	23.14
<b>Total</b>		<b>49</b>	<b>122.50</b>	<b>210.62</b>	<b>88.12</b>

Source: Information furnished by the Department

The Government replied (August 2024) that in the mentioned villages, Preliminary Notification was issued under old LA Act, 1894 and hence the land-to-land was allocated as per RR policy 2005, in which it is mentioned that under para 6.5 land up to 2.5 hectares (6.18 acres) shall be given to Tribal land losers under land-to-land in lieu of compensation. Accordingly, the tribal land losers were allotted land-to-land as permissible under the RR policy 2005 and hence there is no deviation.

The reply is not acceptable, as the 'land-to-land' allotment orders of RDO was issued between the years 2016 to 2021 after implementation of new Act, 2013. Hence, excess allotment of land is not in order.

### 6.3.3 Implementation of Rehabilitation & Resettlement cash benefits

As per Second schedule, PDFs are entitled for the following R&R cash benefits:

Employment/ Choice of Annuity per family ₹5.00 lakh
Subsistence Grant of ₹36,000 for displaced families for a period of 12 months at ₹3,000 per month
Additional subsistence grant of ₹50,000 for SC/STs
Transportation cost of ₹50,000
One time resettlement allowance of ₹ 50,000
One-time financial assistance for Cattle shed/petty shop / Kirana shop/pan shop of ₹ 25,000
One time grant to Artisan, small traders, or self-employed person of ₹ 25,000

#### 6.3.3.1 Payment of cash benefits

As per Section 38 of RFCTLARR Act, 2013, the District Collector shall take possession of land after ensuring that full payment of compensation as well as R&R entitlements are paid to the entitled persons within a period of three months for the compensation and six months for the monetary part of R&R entitlements listed in the Second Schedule commencing from the date of the award.

Scrutiny of records of the Project Administrator revealed that as against the targeted expenditure of ₹7,270.41 crore for payment of R&R cash benefits to 1,06,006 PDFs, as of March 2023, an amount of ₹841.34 crore<sup>268</sup> was paid to 14,500 PDFs as detailed in **Table 6.11**.

**Table 6.11: Contour wise payment of R&R Cash benefits**

Sl. No.	Contour Level (in m)	R&R Cash Benefits estimated		R&R Cash Benefits Paid		R&R Cash Benefits to be paid	
		Number of PDFs	Amount	Number of PDFs	Amount	Number of PDFs	Amount
1.	Upto (+) 41.15	20,946	1,291.39	14,181	821.51	6,765	469.88
2.	(+) 41.15 to (+) 45.72	85,060	5,979.02	319	19.83	84,741	5,959.19
<b>Total</b>		<b>1,06,006</b>	<b>7,270.41</b>	<b>14,500</b>	<b>841.34</b>	<b>91,506</b>	<b>6,429.07</b>

Source: Records of Project Administrator, Polavaram Irrigation Project, Rajamahendravaram

The reasons for non-payment of R&R cash benefit to balance PDFs was not forthcoming from the records produced to audit.

Further, scrutiny of records in two R&R offices<sup>269</sup> relating to payment of R&R benefits revealed that out of 7,407 identified PDFs in Polavaram (3,198 PDFs) and Devipatnam

<sup>268</sup> ₹821.51 crore was paid to 14,181 PDFs up to (+) 41.15 m contour and ₹19.83 crore was paid to 319 PDFs for above (+) 41.15 m contour

<sup>269</sup> Office of the Revenue Divisional Officer, Jangareddigudem and Office of Sub-Collector, Rampachodavaram

Mandals (4,209 PDFs), 972 PDFs<sup>270</sup> of 45 habitations were shifted (as of March 2023) to R&R colonies without payment of entitled R&R cash benefits of ₹64.88 crore<sup>271</sup> (as detailed in **Appendix 6.6**).

Shifting of PDFs before payment of R&R cash compensation is against the provisions of RFCTLARR Act, 2013.

The Government replied (August 2024) that the PDFs are shifted from the submergence habitation only after payment of R&R Cash benefit and handover of constructed house with amenities under Schedule III of RFCTLARR Act, 2013 in the R&R colony and it is purely voluntary. However, some PDFs in certain habitations where their houses are completed but R&R Cash benefits were not paid, shifted voluntarily to new R&R colonies due to various reasons *viz.*, maximum Co-PDFs shifted to new colony, flood affect during rainy season in the old habitation, interested to shift to the new R&R colony with good amenities and infrastructure *etc.* Of the 20,946 PDFs identified under Phase-I, 14,496 PDFs were paid R&R Cash Benefits of ₹841.47 crore. Of the remaining 6,450 PDFs, bills pertaining to 5,230 PDFs were raised for ₹342.71 crore and payment of bills pertaining to the remaining 1,220 PDFs is in progress.

The reply is silent on failure to extend the legitimate R&R cash benefit even to the already shifted PDFs. Further, delay in extending R&R cash benefit would delay the entire process of completion of PIP within the targeted date and this also causes social and financial distress among PDFs.

### **6.3.3.2 Non-payment of additional R&R package to Project Displaced Families**

The GoAP accorded sanction<sup>272</sup> (June 2021) for payment of ₹550.00 crore towards additional R&R package to PDFs in addition to the cash emoluments extended under Second Schedule of RFCTLARR Act, 2013 and to ensure that each PDF receives R&R package of ₹10.00 lakh.

Audit noticed that additional R&R package was not paid to PDFs. The reason for non-payment of additional R&R package to the beneficiaries is not on record.

The Government replied (August 2024) that the package of ₹10.00 lakh includes all the monetary emoluments under the RFCTLARR Act, 2013 is an assurance given (June 2021) by the Government. The balance payment as assured under additional R&R package would be made to the PDFs as per availability of budget.

During the Exit Conference, the Government stated (November 2024) that though assurance given, guidelines and rules for payment were yet to be finalised.

Thus, it is evident that the R&R package of ₹10.00 lakh was not extended to PDFs.

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<sup>270</sup> Office of the Revenue Divisional Officer (435 PDFs of 19 habitations of Polavaram Mandal) + Office of Sub-Collector (537 PDFs of 26 habitations of Devipatnam Mandal)

<sup>271</sup> Office of the Revenue Divisional Officer (₹ 29.10 crore, 435 PDFs of 19 habitations of Polavaram Mandal) + Office of Sub-Collector (₹35.58 crore, 537 PDFs of 26 habitations of Devipatnam Mandal)

<sup>272</sup> G.O.RT.No.224 WRD (R&R-A2) Department dated 30.06.2021

### 6.3.4 Provisioning of housing units

As per Second schedule of RFCTLARR Act, 2013, if a house is lost in rural areas, a constructed house shall be provided as per the Indira Awas Yojana specifications. House with not less than 25 Sq. m<sup>273</sup> i.e., 269 Sq. ft. to be constructed as per Indira Awas Yojana Specifications.

However, the Special Commissioner (R&R), Vijayawada instructed<sup>274</sup> (July 2021) to provide a house of plinth 379.25 Sq. ft. in a land admeasuring 0.05 acres, with all the basic infrastructure amenities in the R&R colonies to be constructed by the Government. Option-wise (*refer Para 6.1.2 (c)*) details of payments made to the beneficiaries up to (+) 41.15 m contour was as detailed in **Table 6.12**.

**Table 6.12: Option wise details of payments made**

(₹ in crore)					
Option	Total number of PDFs opted	R&R benefits payable including housing unit	Self Construction/ One Time Scheme benefit	Number of PDFs availed the benefit	Amount paid for self construction
Option-1	17,718	1,083.97	Government construction	13,459	Government construction
Option-2	1,476	95.87	42.07	617	0.06
Option-3	1,752	111.55	67.45	105	--
<b>Total</b>	<b>20,946</b>	<b>1,291.39</b>	<b>109.52</b>	<b>14,181</b>	<b>0.06</b>

Source: Information provided by the RDO, Jangareddigudem and Sub-Collector, Rampachodavaram

#### 6.3.4.1 Housing units kept vacant for want of essential amenities

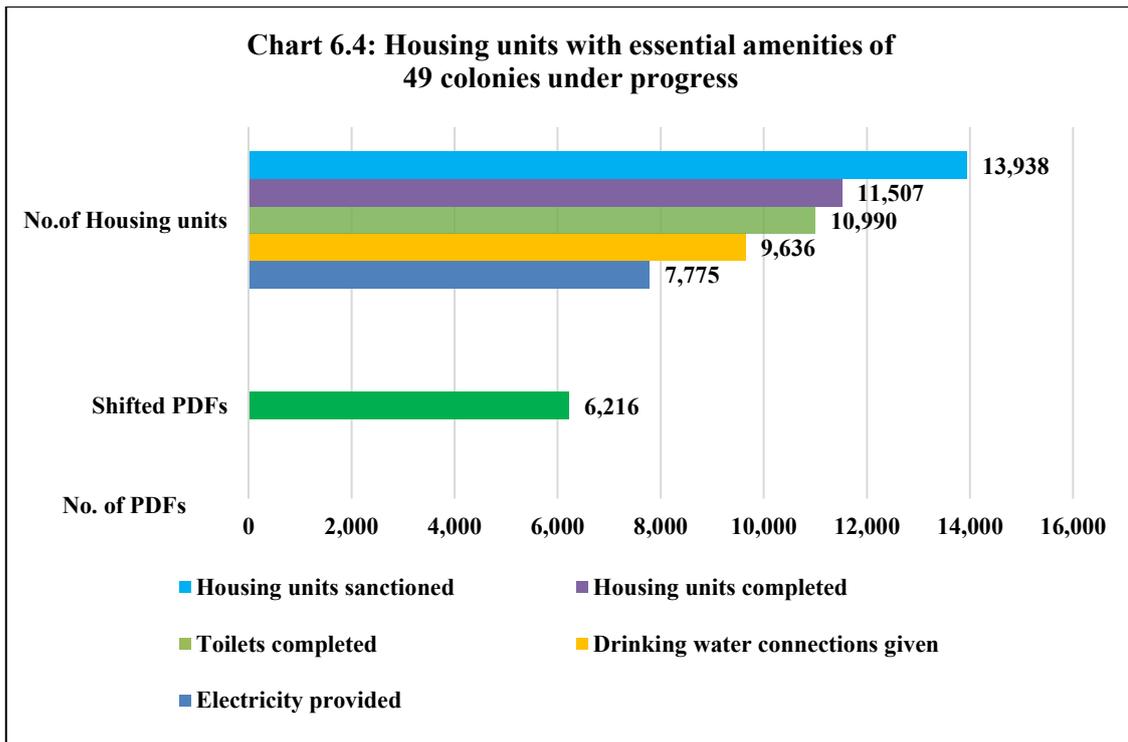
The PIP is targeted for completion by June 2024. To accommodate PDFs upto FRL (+) 45.72 m, a total of 213 R&R colonies were contemplated prior to March 2014, out of which construction of 75 colonies were taken up upto (+) 41.15 m contour. Out of these 75 colonies, 26 colonies were completed (March 2021) with rehabilitation of 3,922 PDFs and 49 colonies were under progress.

Audit noticed that the District Collectors allotted works to various Executing agencies<sup>275</sup> and the sites for construction of R&R colonies were handed over to the said agencies between 2018 and 2020. In the 49 colonies under construction, a total of 13,938 housing units were sanctioned, of which structures of 11,507 units were completed (as of March 2023). Total PDFs shifted to these housing units till March 2023 were 6,216. The number of housing units constructed, and amenities provided to the housing units in 49 colonies is as shown in **Chart 6.4**.

<sup>273</sup> the same was 20 Sq. m prior to 2019

<sup>274</sup> RC.No.1708/CRR/B/2020 dated 18.07.2021

<sup>275</sup> Roads & Building, Panchayat Raj, Tribal Welfare, Andhra Pradesh State Housing Corporation Limited and Andhra Pradesh Education Welfare Infrastructure Development Corporation



The status of work (as of March 2023) related to houses completed by the executing Departments in the 49 R&R colonies which are in progress is detailed in *Appendix 6.7*.

Audit noticed that:

- Out of the proposed 13,938 housing units, 11,507 units were completed (March 2023) leaving a balance of 2,431 units to be completed. In 11,507 completed housing units, only 6,216 PDFs were shifted. The balance 5,291 (11,507 units- 6,216 units) completed housing units (46 *per cent*) were lying idle due to non-provisioning of basic amenities.
- Toilets in 517 housing units (11,507- 10,990), drinking water connections to 1,871 housing units (11,507-9,636) and electric connections to 3,732 housing units (11,507- 7,775) were not provided. Due to non-provisioning of essential amenities, the intended purpose of constructing housing units was not achieved. Reasons for non-commencement of balance 2,431 units (13,938 - 11,507) and reasons for not providing the basic amenities in the already constructed units were not forthcoming from records.
- Though the lands were handed over to the executing agencies for construction of R&R colonies between 2018 and 2020, even after a lapse of three to five years, 44.22 *per cent* of works were still pending completion.

The Government replied (August 2024) that out of 13,938 housing units allotted, 11,595 units were completed and occupied. The remaining 2,137 houses are under progress and the remaining 206 units are yet to be started. Out of 13,799 toilets units, 11,063 were completed, 1,459 toilets are under progress and the remaining 1,277 are to be started. Drinking water connections to 1,852 housing units and electric connections to 3,496 housing units are under progress.

During the Exit Conference, the Government stated (November 2024) that due to incomplete infrastructure and pending payment of R&R benefits, the PDFs are not shifting to the R&R

colonies. The infrastructure would be completed in next six months and the PDFs would be shifted to the already constructed houses.

#### 6.3.4.2 Non-provision of additional common facilities

The Special Commissioner, R&R had issued (March 2021) circular instructions to all the executing agencies for provision of the following common and mandatory facilities to each and every house in all the R&R colonies of Polavaram Irrigation Project:

- Plinth protection around the house and all the Reinforced Cement Concrete buildings/structures *i.e.*, Anganwadi Centre, Post Office, school building, shopping complex, *etc.*
- Pathway of one meter width to houses, toilets and infra buildings with brick on edge wall sides.
- Wash place beside bathroom (for cleaning of vessels and clothes) with brick on edge wall around the place.
- Three number of tap points to each house *i.e.*, at Kitchen, Toilets and wash place.
- One almirah (built in cupboard) in bedroom.
- Suitable earth for plantation and vegetable growth in the open spaces of house sites.

Further, executing agencies were instructed that the above facilities be included in the DPR. During the beneficiary Survey in selected R&R colonies (September to November 2022), audit noticed that many of the above additional facilities were not provided for all the houses as shown in **Pictures 6.2 to 6.5**.

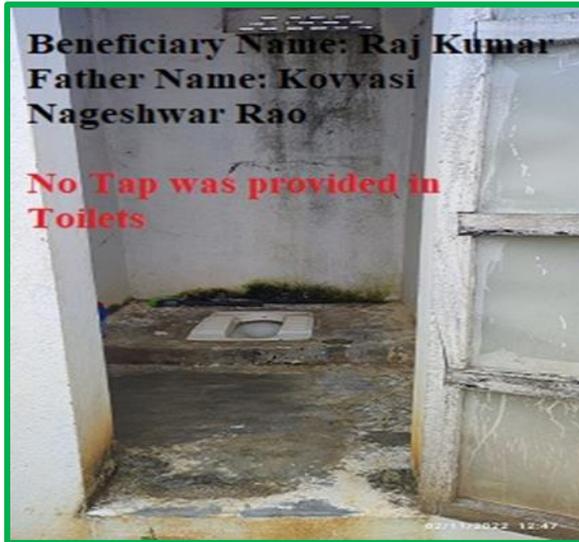
**Picture 6.2 to 6.5: Photographic images related to non-provisioning of additional facilities viz., No plinth protection, pathway to the house, no wash place, no tap points provided.**



**No plinth protection and pathway to the house, (Plot No.176)**



**No plinth protection to Panchayat Office building (Plot No.52)**



**Tap connection not provided in toilet**



**Tap connection not provided in Kitchen**

The Government replied (August 2024) that due to limitations in unit cost per PDF as per RCC and to maintain uniformity in execution of houses in all colonies, one almirah in Bedroom and one in Kitchen are provided. One Tap connection with platform for cleaning & washing of clothes is also provided to each house. The remaining facilities would also be provided in due course.

The reply confirms that despite instructions from the Special Commissioner, R&R, to all the executing agencies, to provide the mandatory additional common facilities, these facilities were not provided to the PDFs.

### **6.3.5 Unfruitful expenditure due to non-completion of compound wall**

Third Schedule to the RFCTLARR Act, 2013 stipulate that appropriate security arrangements must be provided for settlement, if needed. As most of the resettlement colonies are located in/near farms, construction of compound walls would be one of the basic security arrangements to be provided as per the provisions of the Act.

The District Collectors of erstwhile East Godavari and West Godavari Districts entrusted works related to development of R&R colonies to various executing agencies<sup>276</sup>. Of these, APSHCL<sup>277</sup> was allocated works of four colonies<sup>278</sup> in East Godavari District and 11 colonies<sup>279</sup> in West Godavari Districts. Scrutiny of records of EE, APSHCL, Rampachodavaram, East Godavari District revealed that a provision of ₹4.64 crore was made in Detailed Project Reports for construction of compound wall around the R&R colonies of Krishnuniapalem, Indukuru-1 and Indukuru-2 as detailed in **Table 6.13**.

<sup>276</sup> Roads & Building, Panchayat Raj, Tribal Welfare, Andhra Pradesh State Housing Corporation Limited and Andhra Pradesh Education Welfare Infrastructure Development Corporation

<sup>277</sup> Andhra Pradesh State Housing Corporation Limited

<sup>278</sup> Indukuru-1 (350), Indukuru-2 (134), Krishnuniapalem (1067) and Velagapalli (102)

<sup>279</sup> Yerravaram (95), Saripalli (315), Sarugudu (60), Sivagiri (128), Taduvai (3905), Vankavarigudem (94), Buttaigudem (168), Dharbagudem (220), Doramamadi (198), Rachannagudem (153) and Swarnavarigudem (444)

**Table 6.13: R&R colonies where incomplete compound walls were constructed**  
(₹ in crore)

Sl. No.	Name of the R&R colony	Amount of provision made in DPR	Expenditure incurred
1.	Krishnunipalem	1.81	0.92
2.	Indukuru-1	1.76	0.50
3.	Indukuru-2	1.07	0.02
<b>Total</b>		<b>4.64</b>	<b>1.44</b>

Source: Information furnished by the Department

A joint inspection of above colonies revealed that the work of construction of compound wall (commenced in 2019-20) in all the above three colonies was incomplete and the construction was stopped in 2021 after incurring an expenditure of ₹1.44 crore. The stoppage of work resulted in unfruitful expenditure of ₹1.44 crore towards these incomplete compound walls in three R&R colonies.

**Picture-6.6 & 6.7: Photographic images of incomplete compound walls**



**Krishnunipalem R&R colony**



**Indukuru-I R&R Colony**

The Government replied (August 2024) that the construction of compound wall was stopped after partial construction due to limitations in unit cost per PDF and to maintain uniformity in execution in all R&R colonies. After completion of all R&R colonies, these colonies would be kept in safe custody of Gram Panchayat and thus, the security/encroachment of public properties within the R&R colonies would be dealt by the Gram Panchayat concerned.

The reply is not acceptable, as the amenities are to be provided based on the requirements of the location. As such, compound walls are necessary as these colonies are adjoining farms and forest. Non-provision of the same may result in encroachments and social conflict due to trespassing.

#### **6.4 Monitoring Mechanism and Other Issues**

As per Section 43(2) & (3) of the RFCTLARR Act, 2013 the Project Administrator (PA) shall function efficiently to meet the special time-frame. The PA shall be provided with such powers, duties and responsibilities as may be prescribed by the appropriate Government. The PA shall be provided with office infrastructure assisted by officers and employees who shall be subordinate to him as the appropriate Government may decide subject to the superintendence, directions and control of the appropriate Government and the Commissioner for R&R. The formulation, execution and monitoring of R&R Scheme shall vest in PA.

#### **6.4.1 Delayed formation of Project Administrator Office**

The PA plays a pivotal role in ensuring the successful execution of the Polavaram Irrigation Project, from planning to implementation and community welfare. Though RFCTLARR Act, 2013 was effective from January 2014, Government had appointed<sup>280</sup> the Project Administrator for the project only in May 2020<sup>281</sup>. Thereafter, the Project Administrator office commenced its operations from July 2020.

Thus, there was a delay of six years in the formation of the Project Administrator office since commencement of RFCTLARR Act, 2013. The delayed appointment of PA may also be one of the reasons for flaws in implementation of LA and R&R.

The Government replied (August 2024) that before the establishment of Project Administrator's office, the Joint Collectors of erstwhile East Godavari & West Godavari Districts were supervising the R&R units and acted as the Project Administrators in their respective jurisdiction of Polavaram Irrigation Project.

The reply is not acceptable. The RFCTLARR Act, 2013 had specifically mentioned about appointment of Project Administrator to oversee the formulation, execution and monitoring of R&R Scheme for effective and timely completion of rehabilitation of PDFs. The delay in the appointment of PA had led to flaws in implementation of R&R scheme.

#### **6.4.2 Functioning of R&R units with meagre staff**

Scrutiny of records relating to cadre strength of staff working in five R&R units revealed that out of 65 temporary posts sanctioned (outsourcing or retired staff posts), only 42 posts were filled while 23 posts (35 *per cent*) were lying vacant.

The Government replied (August 2024) that 65 temporary posts were sanctioned and are to be filled on outsourcing or with retired employees. Out of the 42 working posts, 10 Retired employees resigned, and the remaining 32 outsourcing employees were working. Most of the qualified persons or retired employees are not coming forward to work in R&R units which are in Tribal areas. However, steps are being taken to fill the vacant posts.

During the Exit Conference, the Government stated (November 2024) that previously these units were not functioning, hence staff were not deployed. Now as the activity has taken pace, the vacant posts are proposed to be filled and District Collectors were instructed in this regard.

#### **6.4.3 Lack of effective mechanism for speedy disposal of grievances**

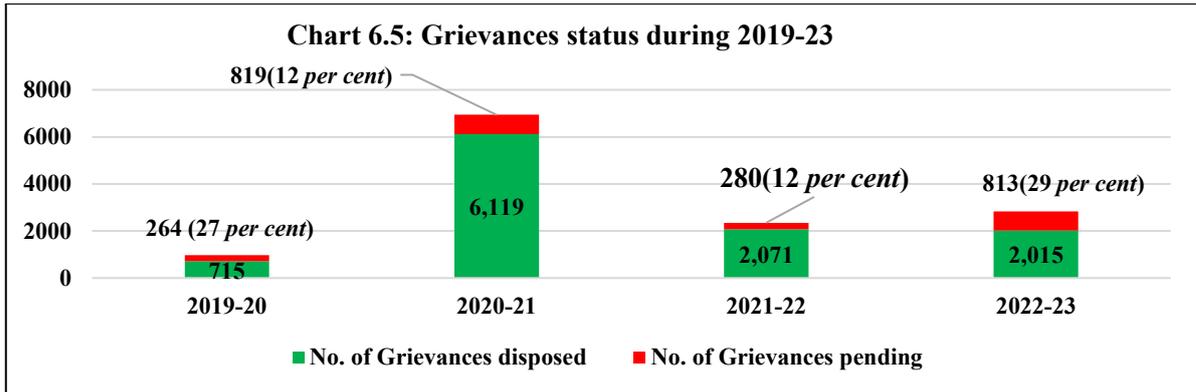
A Grievance redressal cell and a web portal was developed (2019) for quality redressal of grievances. The grievances are uploaded by the public in the web portal for redressal.

Scrutiny of records of the Department revealed that to the end of March 2023, a total of 13,096 R&R related grievances were received during the period 2019-20 to 2021-22. Out of these 13,096 grievances, 10,920 were disposed off leaving a balance of 2,176 grievances (17 *per cent*) pending disposal. Majority of the grievances uploaded in the website pertains to discrepancies in name of the PDF, ration card number, bank account number, Aadhaar number, etc. Year wise details of pending and disposed cases are shown in **Chart 6.5**.

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<sup>280</sup> G.O.Ms.No.42, GA (SC.A) Department dated 10.05.2020

<sup>281</sup> prior to this Special Commissioner (R&R) and concerned District Collectors have overseen the R&R activities



Audit noticed that no timelines for disposal of grievances raised was fixed. Further, information relating to grievances received and disposed of prior to 2019-20 was not available with the office, which indicates that the Project Administrator Office, exclusively formed as a controlling office for the purpose of looking after all the R&R activities of the Project, was not maintaining all the relevant information relating to the grievances raised /disposed.

The Government replied (August 2024) that a web portal ([www.polavaram.ap.gov.in](http://www.polavaram.ap.gov.in)) has been created to upload grievance petitions and to maintain online records of uploaded/ disposed grievances. The web portal has been designed with a mechanism that every petition is enquired initially by the mandal level officer and next by the R&R Officers followed by PA and also by providing appeal opportunity. Also, the PA issues orders to the concerned officers with clear and strict timelines to redress all grievances promptly, effectively and to improve overall administrative efficiency for ensuring transparent processes for rehabilitation and to support the affected communities. After the establishment of PA, PIP, the grievance redressal mechanism was strengthened & streamlined.

The reply is silent regarding non-settlement of pending grievances. Further, the said website does not show the details of grievances received and disposed of.

Thus, an online mechanism has not been developed to have real time position of grievances.

#### **6.4.4 Non-conduct of Social Audits in R&R colonies**

Section 45 and 44(3) of the RFCTLARR Act, 2013 stipulate that where land proposed to be acquired is equal to or more than one hundred acres, the appropriate Government shall constitute a Committee under the chairmanship of the District Collector, to be called the R&R Committee. The Committee shall monitor and review the progress of the implementation of R&R scheme and carry out post-implementation Social Audits in consultation with the Gram Sabha in rural areas and municipality in urban areas. The Commissioner, R&R is responsible for the post-implementation Social Audit.

Para 8.2 of AP R&R Policy 2005 also stipulate that the Government has to conduct third party concurrent audit of implementation of R&R plan and such audit report shall be placed before State Level Monitoring Committee from time to time.

Audit noticed that the Department had not conducted post implementation Social Audit in any of the completed R&R colonies. It is pertinent to mention that during the Beneficiary Survey (*Refer Chapter VII*) of selected PDFs in R&R colonies, it was noticed that there were several issues regarding non extension of entitled R&R benefits, quality of works taken up in R&R

colonies, non-provision of certain amenities and also non/poor maintenance of infrastructure and amenities.

The Government replied (August 2024) that Project Level Monitoring Committees (PLMC) were constituted as per Section 45(1) of the RFCTLARR Act, 2013 in erstwhile East and West Godavari Districts. Three PLMC meetings were conducted in erstwhile East Godavari District (between October 2021 and June 2022) and five in erstwhile West Godavari District (between September 2021 and August 2022). Further, it is submitted that the statutory Social Audit would be conducted once all works are completed in all respects to assess the socio - economic standards.

During the Exit Conference, the Government replied (November 2024) that once the PDFs are shifted to 49 colonies which are in progress, the Social Audit would be taken up.

The reply is not acceptable. The Social Audit is intended to assess how effectively the R&R plan is implemented and to what extent the PDFs are satisfied with the compensation provided in lieu of forgoing their valuable properties and social life attached to their original land.

Due to non-conduct of Social Audit in the completed and occupied R&R colonies, the Department lost an opportunity to get feedback and take corrective action in the ongoing / remaining R&R colonies.

# Chapter VII

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## **Beneficiary And Amenity Survey**

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## Chapter VII Beneficiary and Amenity Survey

Beneficiaries survey revealed that about 40 and 24 *per cent* PDFs did not receive land award and R&R cash compensation respectively. About 31 *per cent* PDFs expressed dissatisfaction with interior quality of housing units as there were cracks on walls, seepage of ceiling, flooring problems, *etc.* The housing units given to PDFs were not registered in the names of the PDFs. Land-to-land allotment was not made to 36 *per cent* of PDFs though eligible. The eligible (95 *per cent*) Scheduled Caste and Tribe youth were not provided with Skill Development Training.

Amenities survey of sampled R&R colonies revealed that the colonies did not have proper internal (33 *per cent*) or external roads, 42 *per cent* R&R colonies did not have school, in 43 *per cent* R&R colonies schools established were non-functional, in 83 *per cent* R&R colonies playground for children was not provided. Basic health facilities *viz.*, Primary Health Centres/Sub-Health Centres were not established in 83 *per cent* R&R colonies and where established were non-functional, Anganwadi Centres were not established in 58 *per cent* of R&R colonies, 92 *per cent* R&R colonies had open drainage system and Veterinary Service Centre was not provided in almost all R&R colonies. Household tap connections were not provided to toilets in all R&R colonies. Fair Price Shops to provide free ration to PDFs was not available in 67 *per cent* of R&R colonies.

### 7.1 Introduction

The Land Acquisition Act, 1894, Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013 categorically prescribes land compensation and R&R benefits to be extended to the affected people along with basic minimum infrastructural amenities to be provided in R&R colonies under three schedules.

Schedule and provisions of RFCTLARR Act, 2013	Description
First Schedule (Section 30(2))	Minimum compensation package to be given to those whose land is acquired. <b>(Land Compensation)</b>
Second Schedule (Section 31(1), 38(1) and 105(3))	Rehabilitation and Resettlement entitlements <i>viz.</i> , provision of housing units, land-to-land and R&R cash benefits <sup>282</sup> , <i>etc.</i> , to all the affected families (both landowners and the families whose livelihood is primarily dependent on land acquired) in addition to the compensation provided under First Schedule for landowners. <b>(R&amp;R benefits)</b>
Third Schedule (Section 32, 38(1) and 105(3))	Infrastructural facilities and basic minimum amenities are to be provided in resettled area at the cost of the Requisitioning Authority. <b>(Infrastructure Amenities)</b>

<sup>282</sup> choice of annuity/ employment, subsistent grant for a period of one year, transportation cost, cattle shed/ petty shop cost, one time grant to artisans, fishing rights, one time resettlement allowance, stamp duty and registration fee for registration of land or house allotted

A total of 1,06,006 Project Displaced Families (PDFs) of 373 habitations were identified to be displaced. The R&R activities were divided into two Phases<sup>283</sup>. Under Phase-I, 20,946 PDFs were identified to be rehabilitated and under Phase-II 85,060 PDFs. However, to the end of March 2023, a total of 11,677 PDFs (Phase-I) pertaining to 38 habitations were rehabilitated in 75 R&R colonies (26 completed and 49 in progress).

As a part of Performance Audit, to analyse the perception of the intended beneficiaries about the socio-economic benefits received and the sufficiency of amenities provided under R&R Scheme, Audit conducted Beneficiary and Amenities survey, in respect of the selected habitations and R&R colonies with the help of a structured questionnaire.

### 7.1.1 Data collection and sampling

The beneficiary and amenities survey was conducted covering the benefitted PDFs under Phase-I (2017-2022). For the feasibility of survey, audit categorised PDFs under Phase-I into two categories viz., Category-I: PDFs rehabilitated to R&R colonies and Category-II: Habitations from where PDFs are yet to be rehabilitated.

In order to select the habitations (from where PDFs were not yet rehabilitated) and R&R colonies for beneficiary and amenities survey, Audit applied Simple Random Sampling Without Replacement (SRSWR) method with following criteria.

- 25 per cent of R&R colonies where PDFs were shifted.
- 25 per cent of habitations from where PDFs were yet to be shifted to the new R&R colonies.

#### (a) Category-I: PDFs rehabilitated to R&R colonies

With the above sampling method, a sample size of 355 PDFs was arrived (*details in Appendix 7.1*). Assuming that during the conduct of beneficiary survey, some beneficiaries may be unavailable/ unresponsive, sample size was increased by 20 per cent i.e., to 426 as shown in *Table 7.1*.

**Table 7.1: Showing the selection of R&R colonies and PDFs of category I (Phase-I)**

Sl. No.	Revenue/ Executing Authority	Number of R&R colonies	Number of selected R&R colonies (25 per cent)	Total Number of PDFs in selected R & R colonies	Number of Beneficiaries selected
1.	RDO, Rampachodavaram	18	5	1,260	193
2.	RDO, Jangareddigudem	11	3	748	209
3.	Project Officer, ITDA, KR Puram	7	2	101	24
<b>Total</b>		<b>36</b>	<b>10</b>	<b>2,109</b>	<b>426</b>

Source: Records of Project Administrator (PIP), Rajamahendravaram

#### (b) Category-II: Habitations from where PDFs are yet to be rehabilitated

With the sampling method, as above, a sample size of 370 was arrived (*details in Appendix 7.1*). Assuming that during the conduct of beneficiary survey, some beneficiaries may be unavailable/unresponsive, sample size was increased by 20 per cent i.e., to 444 as detailed in *Table 7.2*.

<sup>283</sup> Phase-I upto EL (+) 41.15 m and Phase-II above (+) 41.15 m

**Table 7.2: Showing the habitations and PDFs yet to be rehabilitated**

Sl. No.	Revenue/ Executing Authority	Number of Habitations	Number of Selected Habitations (25 per cent)	Number of Beneficiaries in Habitations	Number of Beneficiaries selected in the habitation
1	RDO, Rampachodavaram	34	9	521	101
2	RDO, Jangareddigudem	28	7	187	38
3	Project Officer, ITDA, KR Puram	25	6	2,041	305
<b>Total</b>		<b>87</b>	<b>22</b>	<b>2,749</b>	<b>444</b>

Source: Records of Project Administrator (PIP), Rajamahendravaram

To comprehensively cover the LA and R&R activities, Revenue Authorities (LA and R&R awards), Executing Authorities (construction of R&R colonies) and Supervising Authorities (PA, PIP, Special Collector (LA) and Commissioner (R&R)) were covered as a part of audit.

### 7.1.2 Survey methodology and conduct of survey

Audit conducted the survey of PDFs in R&R colonies and habitations by including new beneficiaries (not in sample) in place of unavailable/ unresponsive beneficiaries whenever total number of surveyed beneficiaries in the selected R&R colonies fell short of actual required (100 per cent) sample against 120 per cent sample selected. The abstract of the sample selected and actual survey conducted is detailed in *Table 7.3*.

**Table 7.3: Details of number of surveyed beneficiaries**

Sl. No.	Revenue/ Executing Authority	Category	To be done as per Selected sample			Actually Surveyed	
			Number of Habitations / Colonies	PDFs sample size to be surveyed	PDFs selected sample	Number of colonies/ habitations	Number of PDFs
(a)	(b)	(c)	(d)	(e)	(f)= (1.2 x (e))	(g)	(h)
1.	RDO, Jangareddigudem	Colonies	5	174	209	7 Colonies	219
		Habitations	7	32	38		
2.	RDO, Rampachodavaram	Colonies	3	161	193	3 Colonies	170
		Habitations	9	84	101		
3.	PO, ITDA, K R Puram	Colonies	2	20	24	2 Colonies	29
		Habitations	6	254	305	6 Habitations	313
<b>Total</b>			<b>10 Colonies</b>	<b>725</b>	<b>870</b>	<b>12 Colonies</b>	<b>418</b>
			<b>22 Habitations</b>			<b>6 Habitations</b>	<b>313</b>

Source: Records of Project Administrator (PIP), Rajamahendravaram

A total of 418 PDFs in 12 R&R colonies<sup>284</sup> and 313 PDFs in six<sup>285</sup> habitations were selected for detailed survey. Audit adopted Questionnaire Survey<sup>286</sup> method<sup>287</sup> for conducting Amenity and Beneficiary Survey. Responses captured from PDFs during survey were analysed and verified by audit with the records of implementing units of LA and R&R to ensure correctness of facts and figures. The survey was carried out between September and November 2022, through a joint inspection with Departmental staff.

## 7.2 Beneficiary Survey Observations

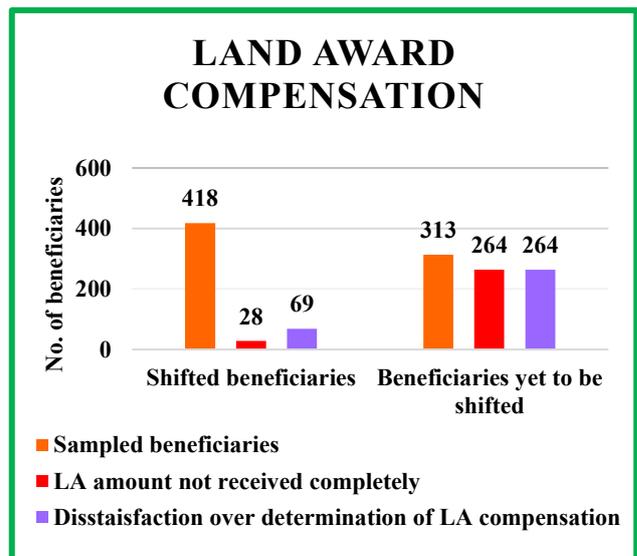
The beneficiary survey was carried out to assess whether the Land Award Compensation under First Schedule and R&R benefits under Second Schedule of Act, 2013 were extended to the sampled PDFs in the selected R&R colonies and habitations.

### 7.2.1 Land Award Compensation

The Land award compensation shall be calculated as per the provisions laid down under Section 26 to Section 30 read with the First Schedule of RFCTLARR Act, 2013. The compensation shall be paid to all the parties whose land /other immovable property / assets attached to the land or building have been acquired. The components of compensation to be paid to the landowners include Market value of the land, 100 per cent solatium, 12 per cent additional market value, etc.

Beneficiary survey in selected colonies/habitations revealed that:

- Out of 418 sampled beneficiaries (in R&R colonies), 44 beneficiaries stated that the land award compensation amount was not received in full. Further, 69 out of 418 beneficiaries were not satisfied with the determination of compensation amount.
- Out of 313 sampled beneficiaries yet to be shifted (in the habitations), 264 beneficiaries stated that the land compensation amount was not received completely as well as they were not satisfied with the determination of compensation.



To confirm the facts, Audit verified the records of Special Deputy Collector (SDC), Land Acquisition (LA) offices and found that 28 out of the 44 beneficiaries and 264 out of the 313 beneficiaries did not receive the compensation amount completely.

<sup>284</sup> Challavarigudem, Kivvaka, Krishnupalem, Musallakunta, Pedabhimpalli-2, Puchikapadu, Reddy Ganapavaram-4, Rowthugudem, Saripalli, Sarugudu (Doramamidi), Vankavarigudem and Yerravaram (Jeelugumilli)

<sup>285</sup> Chigurumamidi, Jagannadapuram, Koida, Kannaigutta, Narlavaram Colony and Velairpadu

<sup>286</sup> A technique for gathering statistical information about the attributes, attitudes, or actions of a population by a structured set of questions

<sup>287</sup> by using toolkit provided in One IAAD One System

Thus, 292 (40 per cent) out of 731 beneficiaries were deprived of full LA compensation amount.

The Government replied (August 2024) that due to non-submission of title details, pending court cases and family disputes, the LA compensation amount could not be released. Further, until the disposal of litigations, LA amount would not be released completely.

### 7.2.2 Rehabilitation & Resettlement cash compensation

As per Section 31 and Second Schedule of RFCTLARR Act, 2013, the District Collector shall pass R&R awards for each affected family in terms of the entitlements provided in the Second Schedule. The components of R&R cash compensation were as detailed in **Table 7.4**.

**Table 7.4: Details of components of R&R cash compensation**

Sl. No.	Component	Amount (in ₹)
1.	Employment/ Choice of Annuity per family	5,00,000
2.	Subsistence grant for displaced families for a period of 12 months at ₹3,000 per month	36,000
3.	Transportation cost	50,000
4.	One time resettlement allowance	50,000
5.	Additional subsistence grant for SC/STs	50,000
6.	One-time financial assistance for Cattle shed/petty shop / Kirana shop/pan shop	25,000
7.	One time grant to Artisan, small traders, or self-employed person	25,000

Beneficiary survey revealed that 16 out of 418 beneficiaries, (selected R&R colonies) did not receive the R&R cash compensation amount in full. Further, 164 out of 313 beneficiaries yet to be shifted (in selected habitations), stated that the R&R cash compensation amount was not received.

The records of R&R offices also confirmed that 15 out of 16 beneficiaries in selected R&R colonies and 164 beneficiaries of selected habitations did not receive the cash compensation. Further analysis of each component of R&R cash compensation is detailed in **Table 7.5**.

**Table 7.5: Details of components of R&R cash compensation**

Sl. No.	R&R cash compensation	Selected R&R colonies	Selected Habitations	Audit observation
A	One-time financial assistance per PDF for cattle shed/petty shop/ kirana shop/ pan shop of ₹25,000.	Out of 418 beneficiaries, 109 had cattle shed/petty shop. Out of these, 85 beneficiaries stated that amount of ₹25,000 was not received.	Out of 313 beneficiaries, 87 had cattle shed/petty shop. Out of these, 72 beneficiaries expressed that amount of ₹25,000 was not received.	As per the records of SDC, 34 out of these 85 beneficiaries in R&R colonies and 36 out of these 72 beneficiaries in habitations have not received the one-time financial assistance and the others were ineligible.
B	One time grant of ₹25,000 to artisan, small traders and self-employed person.	Out of 418 beneficiaries, seven were artisan/ small trader/ self-employed person who have not received the grant.	Out of 313 beneficiaries, 27 were artisan, small trader, or self-employed person who have not received the grant.	As per records, four (one out of seven and three out of 27 beneficiaries), beneficiaries did not receive one time grant being self-employed and remaining 30 were ineligible/ already paid.

Thus, Department did not ensure grant of R&R cash compensation to all eligible beneficiaries.

The Government replied (August 2024) that Socio Economic Survey of the concerned habitation is being conducted and the details of the affected families having cattle shed/petty shop and being artisan /small trader *etc.*, was published by conducting Gram Sabha duly reciting R&R entitlements to be granted as per the R&R Scheme and objections were taken during the Gram Sabha. It was further stated that after disposing of the objections, the R&R Schemes were prepared and approved awards were passed and the R&R cash entitlements were being paid to the PDFs.

The reply merely describes the procedure being followed in awarding R&R cash compensation to the eligible beneficiaries and did not mention the reasons for not granting compensation to the beneficiaries as pointed out by Audit.

### 7.2.3 Provision of housing units and quality of construction

As per Section 31 and 2<sup>nd</sup> Schedule of RFCTLARR Act, 2013, if a house is lost in rural areas, a constructed house shall be provided. The benefits shall also be extended to any affected family which is without homestead land and has been residing in the area continuously for a period of not less than three years preceding the date of notification of the affected area and has been involuntarily displaced from such area. Provided that if any affected family in rural areas so prefers, the equivalent cost of the house may be offered in lieu of the constructed house. No family affected by acquisition shall be given more than one house under the provisions of this Act.

Five out of 418 beneficiaries in selected R&R colonies, and 55 out of 313 beneficiaries in selected habitations (yet to be shifted) stated that housing units were not allotted to them.

Scrutiny of records of R&R offices revealed that four out of the five beneficiaries did not receive housing unit/plot and remaining one beneficiary was allotted housing unit/ plot. All the 55 beneficiaries were allotted housing unit/ plot.



Picture 7.1: Poor quality of Flooring in Houses allotted to beneficiaries

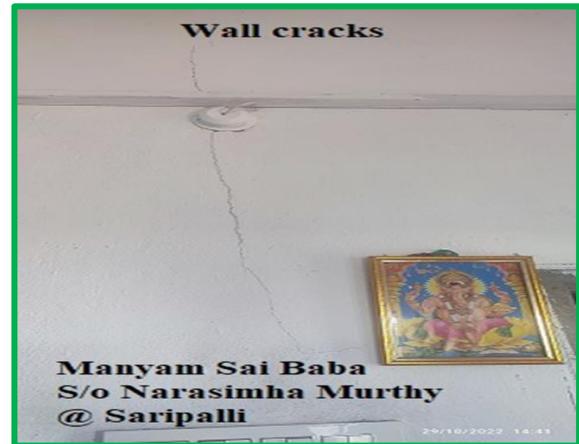


Picture 7.2: Seepages in housing units allotted to PDFs

Further, in selected R&R colonies, 129 out of 418 sampled beneficiaries stated that the interior quality of house was not good as there were wall cracks, seepage, flooring problems, *etc.*, in the housing units constructed by the Department. Joint Physical verification also confirmed the same.



**Picture 7.3: Window fitting not done properly in housing units allotted to PDFs**



**Picture 7.4: Cracks in the walls of housing units allotted to PDFs**

The Government replied (August 2024) that the defects of flooring, seepage, doors & windows and wall cracks were rectified.

The Government did not furnish the details of rectification of defects carried out in all the houses of 129 beneficiaries.

#### **7.2.4 Stamp duty and registration fee for land or house allotted**

As per Section 31 and Second Schedule of RFCTLARR Act, 2013, stamp duty and other fees payable for registration of the land or house allotted to the affected families shall be borne by the Requiring Body and the land for house allotted shall be free from all encumbrances. The land or house allotted may be in the joint names of wife and husband of the affected family.

During beneficiary survey 34 out of 418 beneficiaries in selected R&R colonies and one out of 313 beneficiaries in selected habitations stated that stamp duty and registration fee was borne by Government.

Scrutiny of records of R&R offices revealed that none of the houses were registered in the names of PDFs.

The Government replied (August 2024) that stamp duty and other fee are exempted for house site registration in favour of PDFs and land-to-land registration in favour of affected families under Polavaram Irrigation Project. Further, model patta format for issuance of pattas to the PDFs is also finalised and the process of registration of houses/house site in the names of PDFs is under progress.

Thus, ownership of land was not transferred in the name of the beneficiaries thereby depriving them of their property rights.

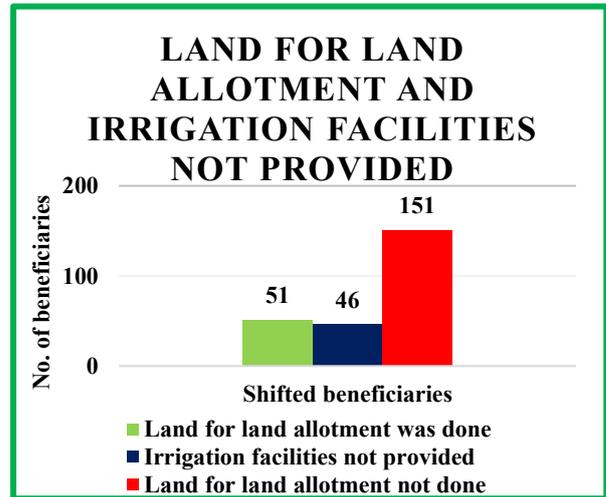
#### **7.2.5 Land-to-land allotment and irrigation facilities**

As per Section 31 and Second Schedule of RFCTLARR Act, 2013, in case of irrigation project, in lieu of compensation to be paid for agricultural land acquired, each affected family, shall be

allotted, a minimum of one acre of land in the command area of the project for which the land is acquired.

As per Third Schedule of RFCTLARR Act, 2013 efforts must be made to provide basic irrigation facilities to the agricultural land allocated to the resettled families if not from the irrigation project, then by developing a cooperative or under some Government scheme or special assistance.

Beneficiary survey revealed that in selected R&R colonies, 51 out of 418 beneficiaries were allotted ‘land-to-land’ and 151 beneficiaries were not provided with land-to-land allotment. However, 46 out of these 51 beneficiaries stated that land-to-land allotment was done without irrigation facility. The remaining were not eligible under ‘land-to-land’ scheme.



The Government replied (August 2024) that land-to-land component is provided only to those ST and SC PDFs whose land was affected/lost under the Project. Thus, the ineligible PDFs in the R&R colonies were not provided with land-to-land but instead with compensation. Further, the basic irrigation amenities in the R&R colonies would be arranged through Integrated Tribal Development Agencies (ITDA) concerned duly converging with the State and Central Government Schemes on Micro Irrigation viz., AP Micro Irrigation Project, Pradhan Mantri Krishi Sinchayee Yojana etc.

The reply is not acceptable. It is the responsibility of the Government to see that the eligible beneficiaries are provided with land under land-to-land scheme with basic irrigation facilities.

### 7.2.6 Grievance Redressal

The grievance redressal mechanism of an organisation is the gauge to measure its efficiency and effectiveness as it provides important feedback on the working of the administration.

Survey data revealed that in selected R&R colonies, grievances submitted by five out of 418 beneficiaries and 12 out of 313 beneficiaries in selected habitations were not addressed and pending at Mandal Revenue Officer (MRO) and Revenue Development Officer (RDO) levels.

The Government replied (August 2024) that every grievance petition is initially enquired by the mandal level officer followed by R&R Officer and Project Administrator conduct enquiry in step-by-step manner. Special teams headed by Deputy Tahsildar and other technical officers were formed for redressal of the grievances and enquiry reports are published at Grama Sachivalayam or Panchayat notice board for calling any .

The reply is silent regarding settlement of grievances of 17 beneficiaries which were pending at MRO and RDO.

### 7.2.7 Skill Development Plan for Scheduled Caste and Tribal youth

As per Rule 24 of AP RFCTLARR Rules, 2014, a Development Plan is to be prepared in cases of a project involving Land Acquisition on behalf of a requiring body which involves involuntary displacement of the Scheduled Castes or Scheduled Tribes families. The Development Plan under R&R scheme for SC/ST displaced families shall include Skill Development for the youth<sup>288</sup> of affected family through different training programs<sup>289</sup>.

The beneficiary survey revealed that:

- In selected R&R colonies, out of 418 sampled beneficiaries, 110 were SC/ST youth in the age group of 13-35, of which 107 beneficiaries were not provided with skill development training and balance three did not respond.
- In selected habitations, out of 313 sampled beneficiaries, 53 were SC/ST youth in the age group of 13-35, of which 48 beneficiaries were not provided with skill development training and balance five did not respond.

Thus, the necessary Skill Development training was not provided to majority of SC/ST youth in R&R colonies to enable the individuals in building skills most suitable to their own development and employer needs.

The Government replied (August 2024) that boys and girls in the age group of 5–18 years are provided free education from primary to the matriculation level in Schools constructed in the R&R colonies. Further, it was replied that PDFs have been consulted through Gram Sabhas and R&R colony committees through elaborate survey to understand the skill set of PDFs for providing livelihood and other benefits to the PDFs/PAFs. As a part of providing livelihood, youth of PDFs are provided skill development training, Light Motor Vehicle driving training, sewing machine training through Project Officer, ITDAs concerned as per their qualification and interest.

The reply is silent and did not address the reasons for not providing skill development training to the 155 beneficiaries. Further, the reply mentions the procedure being followed by the Department in identifying the youth for imparting skill development.

### 7.3 Outcomes of Amenity Survey

As per the Third Schedule of the RFCTLARR Act, 2013, the resettled population in the new village or colony shall be provided with a reasonable standard of community life. A reasonably habitable and planned settlement should be provided with 25 infrastructural facilities and basic minimum amenities (*as detailed in Appendix 7.2*) viz., provision of roads, transport facility, drainage, sanitation, etc., in R&R colonies at the cost of the Requisitioning Authority. For provisioning of amenities, agreements were concluded (during 2017-19) with contract agencies to provide these amenities within 12 month period from the date of agreement.

As a part of amenities survey, a joint physical verification of 12 R&R colonies (*as detailed in Appendix 7.3*) was conducted. For each amenity, a set of questions were prepared to evaluate the achievement made in provisioning of amenities. Questionnaire survey method was used for

<sup>288</sup> as per National Youth Policy 2003, 'youth' was defined as a person of age between 13-35 years

<sup>289</sup> Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDY-GKY), etc.

conducting survey in the sampled R&R colonies. The results of Infrastructural Amenities Survey conducted by audit in the selected R&R colonies are discussed in succeeding paragraphs.

### 7.3.1 Provisioning of roads with suitable transport facility

The Third schedule of RFCTLARR Act, 2013 stipulates provisioning of roads within the resettled villages and an all-weather road link to the nearest pucca road with suitable public transport facility up to nearby growth centres/urban localities.

The amenities survey revealed that:

- In four<sup>290</sup> out of 12 R&R colonies, internal roads were not laid.
- In four<sup>291</sup> R&R colonies, external road connectivity was not provided. Though external road connectivity was provided in eight colonies, public transportation was provided only in six colonies leaving the other two colonies (Reddy Ganapavaram-4 and Krishnuniapalem) without public transport facility.

The Government replied (August 2024) that in five<sup>292</sup> R&R colonies internal road works are under progress. In Saripalli R&R and Reddy Ganapavaram-4 colony external connectivity provided and completed. In Challavarigudem, external connectivity roads would be started soon and in Vankavarigudem, the external road work is under progress. Transportation facilities would be provided upon completion of the road connectivity.



**Picture 7.5: Incomplete Internal Roads in Musallakunta colony**

### 7.3.2 Provisioning of school for children

The Third schedule of RFCTLARR Act, 2013 stipulates that as per the provisions of the Right of Children to Free and Compulsory Education (RCFCE) Act, 2009, school shall be provided in R&R colonies. The RCFCE Act, 2009 stipulate that the location of schools should be in a safe walking distance of one kilometre for a Primary School, three kilometres for an Upper Primary / High School having classes VI to VIII from the habitations.

Amenities survey revealed that:

- In five<sup>293</sup> R&R colonies, schools were not established.
- In three<sup>294</sup> out of remaining seven R&R colonies, the established schools were non-functional and in remaining four<sup>295</sup> colonies, schools were functional.

<sup>290</sup> Yerravaram, Vankavarigudem, Pedabhimpalli-2 and Challavarigudem

<sup>291</sup> Vankavarigudem, Saripalli, Musallakunta and Challavarigudem

<sup>292</sup> Yerravaram, Musallakunta, Vankavarigudem, Challavarigudem, Pedabhimpalli-2

<sup>293</sup> Yerravaram (Jeelugumilli), Vankavarigudem, Pedabhimpalli-2, Challavarigudem and Saripalli

<sup>294</sup> Kivvaka, Musallakunta and Sarugudu

<sup>295</sup> Krishnuniapalem, Puchikapadu, Reddy Ganapavaram-4, Rowthugudem

The Government replied (August 2024) that the school building works are under progress in Yerravaram, Vankavarigudem, Challavarigudem and Saripalli R&R colonies and in Musallakunta building is completed and functioning. In Pedabhimpalli-2, school building was completed. School Building works in Kivvaka & Sarugudu are at completion stage.

Due to non-establishment and non-functioning of school, the children of PDFs were deprived of conveniently located schools and may have to rely on schools away from R&R colonies. Further, audit could not ascertain functioning of any primary /upper primary school within the prescribed distance from the colonies, where schools were established and not functioning.



**Picture 7.6: School established but not functioning in Kivvaka R&R colony**

### 7.3.3 Playground for children

The Third schedule of RFCTLARR Act, 2013 stipulates that playground for children shall be provided in R&R colonies.

Amenities survey revealed that out of 12 R&R colonies, playground was not provided in 10 R&R<sup>296</sup> colonies and in one (Kivvaka) out of two R&R colonies, where it was provided, the playground provided was not fit for use.

The Government replied (August 2024) that due to non-availability of land for playgrounds, the component was not included in DPRs of seven<sup>297</sup> R&R colonies. In Pedabhimpalli-2, playground is available in the school premises. In Puchikapadu R&R



**Picture 7.7: Playground provided in Rowthugudem**

colony, the playground would be developed in the designated place and the works are under progress in Reddy Ganapavaram-4 R&R colony. In Kivvaka R&R colony, land allotted for playground and would be brought into use at the earliest.

Playgrounds play a vital role in keeping the children physically fit and mentally tough. Non-provision of playgrounds may impact the physical and mental growth of children.

### 7.3.4 Availability of Anganwadi Centre and supplemental nutritional services

The Third schedule of RFCTLARR Act, 2013 stipulates that Anganwadi's providing Child and Mother Supplemental Nutritional Services (CMSNS) shall be established in R&R colonies.

The amenities survey of R&R colonies by audit revealed that:

<sup>296</sup> Krishnuniapalem, Musallakunta, Puchikapadu, Reddy Ganapavaram-4, Saripalli, Sarugudu, Challavarigudem, Pedabhimpalli-2, Vankavarigudem and Yerravaram (Jeelugumilli).

<sup>297</sup> Saripalli, Challavarigudem, Sarugudu, Vankavarigudem, Yerravaram, Pedabhimpalli-2 and Krishnuniapalem

- In seven<sup>298</sup> R&R colonies Anganwadi Centres were not established.
- In one (Musallakunta) out of the five R&R colonies where Anganwadi Centre was provided, CMSNS were not available.

The Government replied (August 2024) that the construction of Anganwadi Centres is in progress in Vankavarigudem, Yerravaram (Jeelugumilli), Saripalli and Challavarigudem R&R colonies and would be completed soon. In Reddy Ganapavaram-4, Anganwadi Centre work was completed and handed over to the Panchayat Secretary. The construction of Anganwadi Centre in Puchikapadu R&R Colony is completed and functioning. In Musallakunta, the Anganwadi building is completed and CMSNS services would be provided once the Anganwadi Centre starts functioning.

The non-completion of Anganwadi Centre buildings in four out of the seven colonies had deprived the beneficiaries of the Anganwadi facilities. Further, the reply is silent on the status of the completion of Anganwadi Centres building at Pedabhimpalli-2.

### **7.3.5 Primary health and Sub-health centre**

The Third schedule of RFCTLARR Act, 2013 stipulate that Primary Health Centre (PHC) and Sub Health Centre (SHC) as prescribed by the Government of India shall be provided in R&R colonies within a distance of two kilometres.

#### **(a) Primary Health Centre**

The amenities survey revealed that PHCs were not provided in 10 R&R colonies<sup>299</sup> and PHCs established in the remaining two R&R colonies (Reddy Ganapavaram -4, Sarugudu) were not functional.

The Government replied (August 2024) that construction of PHC in six R&R colonies<sup>300</sup> is in progress. In Krishnunipalem, Pedabhimpalli-2 and Puchikapadu, PHCs were not constructed as PHCs were already available at an approximate distance of 1.2 to 2.5 Km from the R&R colonies. The PHCs in Sarugudu and Reddy Ganapavaram-4 R&R colony were completed and functioning. The SHC building in Musallakunta R&R colony is completed and would be made functional soon.

The Government did not furnish the details of PHCs and their geographic location which are nearer to the three R&R colonies and also the details of completion of construction of PHCs in two colonies, to verify the correctness of claim.

#### **(b) Sub-Health Centre**

The audit survey revealed that SHCs were not constructed in nine<sup>301</sup> R&R colonies and in three<sup>302</sup> R&R colonies, the SHCs established were not functional.

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<sup>298</sup> Puchikapadu, Reddy Ganapavaram-4, Saripalli, Challavarigudem, Pedabhimpalli-2, Vankavarigudem and Yerravaram(Jeelugumilli)

<sup>299</sup> Kivvaka, Krishnunipalem, Musallakunta, Puchikapadu, Rowthugudem, Saripalli, Challavarigudem, Pedabhimpalli-2, Vankavarigudem and Yerravaram (Jeelugumilli)

<sup>300</sup> Saripalli, Challavarigudem, Vankavarigudem, Yerravaram, Kivvaka and Rowthugudem

<sup>301</sup> Krishnunipalem, Puchikapadu, Reddy Ganapavaram-4, Saripalli, Sarugudu, Challavarigudem, Pedabhimpalli-2, Vankavarigudem, Yerravaram (Jeelugumilli)

<sup>302</sup> Kivvaka, Musallakunta, Rowthugudem

The Government replied (August 2024) that in Saripalli, Challavarigudem, Vankavarigudem, Sarugudu & Yerravaram R&R colonies as the PHC works are under progress, hence SHC were not proposed in above R&R Colonies. In Krishnuniapalem, Puchikapadu and Pedabhimpalli – 2 R&R colony, SHC was not provided as PHC centres were available in nearby villages. In Rowthugudem, Kivvaka and Musallakunta R&R Colony the construction of SHC was taken up and would be operated soon.

The Government did not furnish the details of the PHCs and their geographic location that were available in nearby villages to the R&R colonies, to verify the correctness of claim.

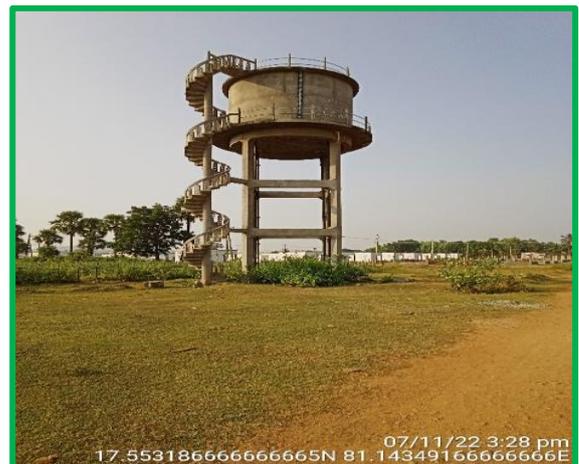
### 7.3.6 Provisioning of Safe Drinking Water

The RTCT LARR Act,<sup>303</sup> stipulate that one or more assured sources of safe drinking water for each family shall be provided in R&R colonies. The amenities survey of R&R colonies revealed that:

- Individual tap connections were provided along with Over Head Storage Reservoir (OHSR) in all R&R colonies except in Pedabhimpalli-2 R&R colony, where OHSR was provided without individual tap connections to majority of households.
- In four<sup>304</sup> out of 12 R&R colonies the water purification system was not implemented.



**Picture 7.8: Drinking water not provided in Pedabhimpalli-2 R&R colony**



**Picture 7.9: OHSR at Kivvaka R&R Colony**

The Government replied (August 2024) that provision of water pipeline and tap connection in Pedabhimpalli – 2 R&R Colony were provided to all houses, the water was tested and found potable. In Krishnuniapalem R&R Colony, the RWS Department has provided ground water. Reservoir with 4000 litres capacity under Satya Sai Drinking Water program was planned to be constructed to cover entire colony. The water was tested and found potable.

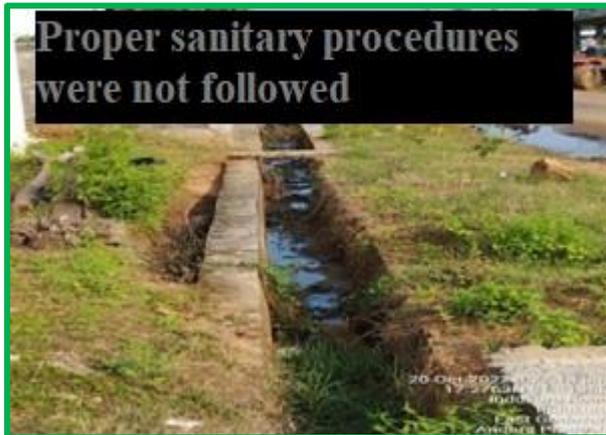
The reply is silent regarding provisioning of water purification system in Musallakunta and Puchikapadu. Regarding providing of tap connection in Pedabhimpalli-2 the documentary evidence was not furnished to verify the correctness.

<sup>303</sup> Third schedule of RTCT LARR Act, 2013, norms prescribed by the Government of India

<sup>304</sup> Pedabhimpalli-2, Krishnuniapalem, Musallakunta and Puchikapadu

### 7.3.7 Provisioning of drainage system

The audit survey revealed that Kivvaka R&R colony did not have drainage system. Only one R&R colony (Puchikapadu) was provided with covered drainage and in all the other 10 sampled colonies, open drainage system was adopted. For an effective sewage system collection, treatment and disposal of waste is necessary. All the open drains should be properly covered, gradients of the drainage system should be conducive for maintaining the flow of water. However, open drainage system was followed in all the colonies and periodic cleaning of drains was not carried out.



Picture 7.10: Open drainage system in R&R colonies



Picture 7.11: Proper sanitary procedures were not followed

The Government replied (August 2024) that in Kivvaka R&R colony the proposals were submitted to Engineer-in-Chief (ENC), Tribal Welfare for administrative approval to take up the drain work. The drainage works were completed with cover slabs in Sarugudu and Reddy Ganapavaram-4 R&R colony. All weather CC drains are provided in Pedabhimpalli-2 R&R colony. In Krishnunipalem R&R Colony drainage works are completed.

The reply is silent regarding provisioning of covered drainage in remaining colonies.

### 7.3.8 Provisioning of tap connections to individual toilet points

The Third schedule of RFCTLARR Act, 2013 stipulates that individual toilet points shall be provided in R&R colonies. The Act also specifies that every household should be provided with a water connection. The Special Commissioner (R&R) instructed (March 2019) all executing agencies to provide three tap points at kitchen, toilet and wash area.

The amenities survey revealed that though individual toilet points were provided in housing units in R&R colonies, no tap connections were provided in toilets in randomly visited houses.

The Government replied (August 2024) that due to limitations in unit cost per PDF and to maintain uniformity in execution of houses in all colonies, one tap connection with platform for utensils cleaning and washing clothes are



Picture 7.12: Tap connections not provided Reddy Ganapavaram-4 R&R Colony

being provided for each house. For the remaining two tap connections, separate sanction needs to be taken, as the same were not included in the original agreements. Action would be taken for inclusion of two tap connections in Kitchen & Bathroom.

### **7.3.9 Provisioning of irrigation facility**

The Third schedule of RFCTLARR Act, 2013 stipulates that efforts must be made to provide basic irrigation facilities to the agricultural land allocated to the resettled families if not from the irrigation project, then by developing a cooperative or under some government scheme or special assistance.

The amenities survey revealed that only one (Rowthugudem) R&R colony had proper irrigation facility and all other colonies were not provided with any kind of irrigation facility.

The Government replied (August 2024) that the basic irrigation amenities in the R&R colonies for land-to-land PDFs would be arranged through Integrated Tribal Development Agencies (ITDA) concerned duly converging with the State and Central Government Schemes on Micro Irrigation like AP Micro Irrigation Project, Pradhan Mantri Krishi Sinchayee Yojana *etc.*

Non provision of irrigation facilities would adversely affect the livelihood and social security of the beneficiaries, besides defeating the very purpose of ‘land-to-land’ provision.

### **7.3.10 Provisioning of grazing land in R&R colonies**

The Third schedule of RFCTLARR Act, 2013 stipulate that proper grazing land as per proportion acceptable in the State shall be provided in R&R colonies. Further, as per Development Plan under R&R scheme, for SC/ST families displaced due to Land Acquisition, land up to one acre for agricultural, horticultural, cattle grazing field per family shall be provided as per Form VIII of AP RFCTLARR, Rules, 2014.

The amenities survey revealed that grazing land for cattle was not provided in any of the R&R colony.

The Government replied (August 2024) that communal grazing grounds would be identified in available government land in and around the R&R colonies.

The lack of grazing land would lead to non-availability of fodder for cattle which would have negative impact on the livelihood of the PDFs.

### **7.3.11 Provisioning of Drinking Water for cattle**

The amenities survey revealed that only two (Musallakunta and Rowthugudem) R&R colonies were provided with drinking water facility for cattle, by way of cattle tubs and small water tanks. The remaining 10 R&R colonies<sup>305</sup> were not provided with drinking water facilities for cattle.

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<sup>305</sup> Kivvaka, Krishnuniapalem, Puchikapadu, Reddy Ganapavaram-4, Saripalli, Sarugudu, Challavarigudem, Pedabhimpalli-2, Vankavarigudem, Yerravaram (Jeelugumilli)



Picture 7.13: Musallakunta R&R Colony



Picture 7.14: Rowthugudem R&R Colony

The Government replied (August 2024) that cattle tubs in six<sup>306</sup> R&R colonies would be completed soon. In Pedabhimpalli-2 and Reddy Ganapavaram-4 R&R colony the cattle drinking water facility was provided. In Krishnuniapalem and Puchikapadu R&R colony there is no need for provision of cattle tubs, as there are no cattle in this layout and there is a natural pond.

### 7.3.12 Availability of Veterinary Service Centre

The amenities survey revealed that Veterinary Service Centres (VSCs) were not provided in eight<sup>307</sup> R&R colonies and in four<sup>308</sup> R&R colonies, VSCs provided were not operational.

The Government replied (August 2024) that in Kivvaka, Krishnuniapalem, Sarugudu & Reddy Ganapavaram-4 R&R colonies, the construction of VSCs was completed and would be handed over soon. Regarding Rowthugudem R&R colony it was replied that Veterinary Hospital was available within two kilometres at Rowthugudem Village. Hence there was no need for construction of VSC.

The reply is silent regarding non-provisioning of VSCs in remaining colonies and documentary evidence for existence of VSC within two kilometres to Rowthugudem colony was not furnished.

<sup>306</sup> Kivvaka, Saripalli, Sarugudu, Challavarigudem, Vankavarigudem, Yerravaram

<sup>307</sup> Musallakunta, Puchikapadu, Rowthugudem, Saripalli, Challavarigudem, Pedabhimpalli-2, Vankavarigudem and Yerravaram (Jeelugumilli)

<sup>308</sup> Kivvaka, Krishnuniapalem, Reddy Ganapavaram-4 and Sarugudu

### **7.3.13 Forest Rights**

Section 42 of the RFCTLARR Act, 2013 stipulates that all benefits and statutory safeguards available to the Scheduled Tribes and Scheduled Castes in the affected areas shall continue in the resettlement area. The community rights settled under the provisions of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of the Forest Rights Act, 2006), shall be quantified and be paid to the individual concerned who has been displaced due to the acquisition of land in proportion with his share in such community rights<sup>309</sup>.

Further, as per Third Schedule (Infrastructural Amenities) of RFCTLARR Act, 2013, the forest dweller families must be provided, where possible, with their forest rights on non-timber forest produce and common property resources, if available close to the new place of settlement and, in case any such family can continue their access or entry to such forest or common property in the area close to the place of eviction, they must continue to enjoy their earlier rights to the aforesaid sources of livelihood.

The amenities survey revealed that although 10 out of 12 R&R colonies had ST population of 1,683, none of these colonies had nearby forest land to enable them to avail forest rights. Further, it is not evident from the records produced to audit whether forest rights in affected areas were quantified and paid to the concerned.

The Government replied (August 2024) that necessary action would be taken for provision of forest rights to the eligible displaced families in coordination with Revenue & Forest Department.

Non-provisioning of forest rights to the forest dweller families may severely affect the livelihood of those families.

### **7.3.14 Separate land earmarked for traditional tribal institutions**

The amenities survey revealed that Scheduled Tribes were residing in 10 out of 12 selected R&R colonies but none of the R&R colonies were provided with separate land earmarked for traditional tribal institution.

The Government replied (August 2024) that action would be initiated for establishment of Traditional Tribal institution in consultation with the Project Officer, ITDAs in the open spaces which were available for public purpose in the R&R colonies. After shifting PDFs to R&R colonies, Gram Sabhas would be conducted for the establishment of institution in R&R colonies.

### **7.3.15 Provisioning of burial or cremation ground**

The Third schedule of RFCTLARR Act, 2013 stipulate that burial or cremation ground, depending on the caste-communities and their practices, shall be established in R&R colonies.

The amenities survey revealed that in six<sup>310</sup> R&R colonies, burial grounds were not provided. In two (Musallakunta and Rowthugudem) out of remaining six R&R colonies, burial grounds

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<sup>309</sup> The Forest Rights Act (FRA), 2006 recognises the rights of the forest dwelling tribal communities and other traditional forest dwellers to forest resources, on which these communities were dependent for a variety of needs, including livelihood, habitation and other socio-cultural needs

<sup>310</sup> Krishnuniapalem, Reddy Ganapavaram-4, Saripalli, Sarugudu, Challavarigudem and Vankavarigudem

provided were community-wise and in remaining four<sup>311</sup> R&R colonies common burial grounds were provided.

The Government replied (August 2024) that in six<sup>312</sup> R&R colonies, burial or cremation ground would be provided soon. In Musallakunta & Rowthugudem R&R Colonies, the available burial ground has been divided community wise by the respective PDFs.

### **7.3.16 Availability of Community Centres**

The Third schedule of RFCTLARR Act, 2013 stipulates that one community centre for every hundred families shall be provided in R&R colonies.

The amenities survey revealed that community centres were not provided in five<sup>313</sup> R&R colonies and in the other seven R&R colonies, established community centres were not operational.

The Government replied (August 2024) that the construction of community centre work is in progress in Rowthugudem, Vankavarigudem and Yerravaram R&R colony. In Saripalli and Challavarigudem R&R colony, the construction of community centre covered under integrated complex would commence soon. In Sarugudu, Pedabhimpalli-2, Reddy Ganapavaram -4 and Musallakunta R&R colonies construction of community hall completed and would be handed over to the Panchayat Secretary.

### **7.3.17 Places of worship and chowpal / tree platform**

The Third schedule of RFCTLARR Act, 2013 stipulate that places of worship and chowpal/tree platform for every fifty families for community assembly shall be provided in R&R colonies.

The amenities survey revealed that place of worship and chowpal/tree platform were not provided in eight<sup>314</sup> R&R colonies. Two colonies (Kivvaka and Pedabhimpalli-2) out of the remaining four were provided with a place of worship and tree platform for every fifty families. In the remaining two colonies, places of worship and tree platform for every 50 families were not adequately provided.

The Government replied (August 2024) that in Puchikapadu, Reddy Ganapavaram-4, Rowthugudem, Saripalli, Sarugudu, Challavarigudem, Vanakavarigudem and Yerravaram (Jeelugumilli) R&R colonies, temple and church were provided and the tree platforms/chowpal would be provided soon. Further, the temple & church works are in finishing stage in Reddy Ganapavaram-4 and in Rowthugudem R&R colony it would be commenced soon.

### **7.3.18 Availability of Fair Price Shops**

As per Third schedule of RFCTLARR Act, 2013, a reasonable number of Fair Price Shops (FPS) shall be established.

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<sup>311</sup> Kivvaka, Puchikapadu, Pedabhimpalli-2 and Yerravaram(Jeelugumilli)

<sup>312</sup> Krishnuniipalem, Reddy Ganapavaram-4, Saripalli, Sarugudu, Challavarigudem and Vankavarigudem

<sup>313</sup> Rowthugudem, Saripalli, Challavarigudem, Vankavarigudem and Yerravaram(Jeelugumilli)

<sup>314</sup> Puchikapadu, Reddy Ganapavaram-4, Rowthugudem, Saripalli, Sarugudu, Challavarigudem, Vankavarigudem and Yerravaram (Jeelugumilli)

The amenities survey revealed that in four R&R colonies, FPS was functional while no FPS was established in seven<sup>315</sup> R&R colonies. In one (Rowthugudem) R&R colony, FPS was established but not functional.

The Government replied (August 2024) that in all villages in the State of Andhra Pradesh, the essential commodities are distributed through Public Distribution System supplied through mobile dispensing units at the doorsteps of the beneficiaries. Therefore, the need for creation of FPS does not arise.

The reply is not acceptable, as in four R&R colony the FPS were established and functional.

### 7.3.19 Establishment of Panchayat Offices

The amenities survey revealed that in six<sup>316</sup> R&R colonies, Panchayat Offices were not established. In remaining six<sup>317</sup> R&R colonies, the Panchayat Offices established were not functional. In two R&R colonies, the Panchayat Office buildings constructed were being utilised for other purposes like Anganwadi, elementary school, *etc.*



Picture 7.15 Panchayat Office building was used as Primary school in Krishnuniapalem R&R colony



Picture 7.16: Panchayat Office building was used as Anganwadi Centre in Puchikapadu R&R colony

The Government replied (August 2024) that in Sarugudu and Reddy Ganapavaram-4 R&R colony, the construction of Panchayat Office building is completed and would be handed over/handed over to Panchayat Secretary. In Rowthugudem and Kivvaka R&R Colony, the work is in progress.

The reply is silent regarding the construction of Panchayat building in other R&R colonies and the reasons for utilisation of already constructed buildings for other purposes than planned.

### 7.3.20 Establishment of Post Offices

The Third schedule of RFCTLARR Act, 2013 stipulates that appropriate village level Post Offices with facilities for opening saving accounts shall be established in R&R colonies.

<sup>315</sup> Challavarigudem, Yerravaram(Jeelugumilli), Vankavarigudem, Pedabhimpalli-2, Kivvaka, Krishnuniapalem and Musallakunta

<sup>316</sup> Saripalli, Challavarigudem, Yerravaram (Jeelugumilli), Vankavarigudem, Pedabhimpalli-2 and Musallakunta

<sup>317</sup> Krishnuniapalem, Puchikapadu, Sarugudu, Reddy Ganapavaram-4, Kivvaka and Rowthugudem

The amenities survey of sampled R&R colonies revealed that in seven<sup>318</sup> R&R colonies, Post Offices were not established and the Post Offices established in remaining five<sup>319</sup> R&R colonies were not functional.

The Government replied (August 2024) that in Reddy Ganapavaram-4 and Rowthugudem R&R colony, the Post Office building was constructed and handed over to Panchayat Secretary. In Sarugudu & Musallakunta, the Post Office buildings were completed and would be handed over to user agency. In Kivvaka R&R colony, the Post Office is in completion stage. The Post Office building in Krishnuniapalem R&R colony is converted to Anganwadi Centre, as a Post Office is available in Gokavaram main village which is very near to the Krishnuniapalem R&R Colony.

The reply is silent regarding the establishment and functionality of the Post Office building in other R&R colonies. Further, the Government had not furnished any documentary evidence in support of its claim.

### **7.3.21 Seed-cum-Fertiliser storage facility**

The amenities survey revealed that in nine<sup>320</sup> R&R colonies, fertiliser stores were not established and in two (Kivvaka and Rowthugudem) out of remaining three colonies, fertiliser stores established were not functional. Fertiliser store was functioning only in Krishnuniapalem.

The Government replied (August 2024) that in Musallakunta, Puchikapadu, Reddy Ganapavaram-4, Saripalli, Sarugudu, Challavarigudem, Vankavarigudem & Yerravaram R&R colonies, the fertiliser stores are available in the nearby main villages which are within two kilometres from the R&R colonies. In Rowthugudem and Kivvaka R&R Colonies construction is taken up under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS).

The Government did not furnish the details (names of the nearby villages and their geographical locations) of fertiliser stores which are located in the nearby villages within two kilometres from R&R colonies, to verify the correctness of claim.

### **7.3.22 Household electric connection**

The Third schedule of RFCTLARR Act, 2013 stipulate that individual household single electric connection (or connection through non-conventional sources of energy like solar energy) and public lighting shall be provided in R&R colonies.

The amenities survey revealed that individual single electric connections were provided in all R&R colonies. Conventional Energy was also used in R&R colonies to generate electricity.

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<sup>318</sup> Krishnuniapalem, Puchikapadu, Saripalli, Challavarigudem, Pedabhimpalli-2, Vankavarigudem and Yerravaram(Jeelugumilli)

<sup>319</sup> Kivvaka, Musallakunta, Reddy Ganapavaram-4, Rowthugudem and Sarugudu

<sup>320</sup> Musallakunta, Puchikapadu, Reddy Ganapavaram-4, Saripalli, Sarugudu, Challavarigudem, Pedabhimpalli-2, Vankavarigudem and Yerravaram (Jeelugumilli)



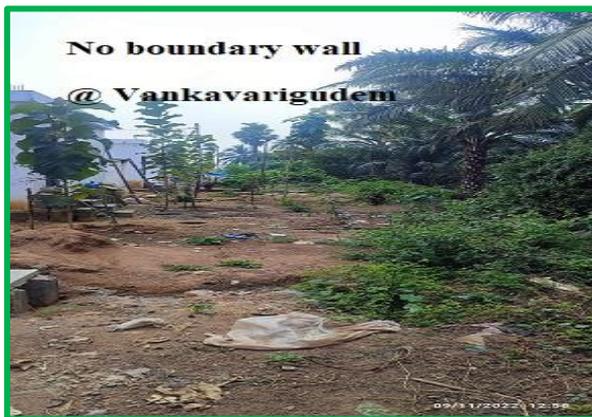
**Picture 7.17: Kivvaka R&R Colony**



**Picture 7.18: Challavarigudem R&R Colony**

### 7.3.23 Security arrangements

The amenities survey revealed that no R&R colony was provided with proper security arrangements like fencing, boundary walls, controlled access points, etc.



**Picture 7.19: Vankavarigudem R&R Colony**



**Picture 7.20: Sarugudu (Doramamidi) R&R Colony**

The Government replied (August 2024) that due to fund restriction and limitations in unit cost per PDF, the construction work of compound wall was stopped. All the R&R colonies would be handed over to the Gram Panchayat Secretaries concerned after completion of works.

**Recommendation 7.1:** *The State Government should accelerate the process of creating necessary infrastructural amenities for the well-being of PDFs.*

## 7.4 Other observations beyond the survey mandate

### 7.4.1 Construction of Anganwadi Centres not in accordance with norms prescribed

As per guidelines issued by GoI in connection with Integrated Child Development Scheme, Anganwadi Centre should be child friendly with all relevant infrastructure. The minimum area for an Anganwadi Centre should not be less than 600 Sq.ft.

However, audit noticed that 22 out of 49 Anganwadi Centres were constructed in area less than the prescribed minimum extent of 600 Sq.ft. as detailed in *Appendix 7.4*.

The Government replied (August 2024) that earlier Anganwadi Centre was constructed with a plinth area of 469 Sq.ft. as per the approved plan. However, as per the guidelines issued by GoI, Anganwadi Centre should be covered in an area of not less than 600 Sq.ft. As per the instructions (March 2021) of the Project Administrator, one additional room (223 Sq.ft.) and toilet are proposed in the working estimates and construction also taken up. With this the total plinth area excluding toilets comes to 692 Sq.ft.

The Government did not furnish documentary evidence regarding instructions issued by the Project Administrator to construct additional room so as to verify that Anganwadi Centres were constructed as per norms laid.



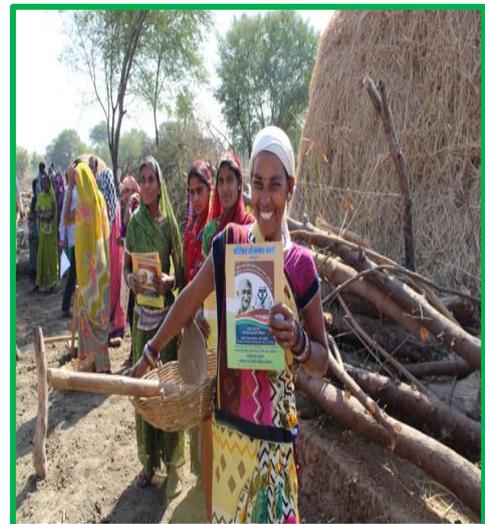
**Picture 7.21: Anganwadi Centre- 1 at Krishnuniapalem R&R Colony**

### 7.4.2 Provisioning of livelihood security to resettled PDFs

Section 31(1) of RFCTLARR Act, 2013 stipulates that the Collector shall pass R&R Awards for each PDF in terms of the entitlements provided in the Second Schedule and Award shall contain details of mandatory employment to be provided to the members of the PDF.

During beneficiary survey, many of the PDFs stated that they possessed MGNREGS Job Cards in their (MGNREGS portal of GoI<sup>321</sup>) native habitation (under submergence area) which were not transferred to the newly shifted R&R colonies area. As a result, the PDFs were unable to seek work under MGNREGS in the newly shifted village. This is causing hardship to the PDFs.

The Government replied (August 2024) that the MGNREGS job cards for the shifted PDFs has been shifted to the new R&R colonies and as on date 1,79,846 person days of employment provided for 5,289 PDFs under MGNREGS for 2023-24 to till date.



**Picture 7.22: MGNREGS beneficiary with Job card**

<sup>321</sup> <https://nrega.nic.in/netnrega/library.aspx>

The Government did not furnish any documentary evidence to verify that job cards of all PDFs were transferred to new R&R colonies and the PDFs were provided employment.

### 7.4.3 Handing over of R&R colonies to the concerned Local Bodies

Sections 32, 38(1) and 105(3) of RFCTLARR Act, 2013 stipulates that for resettlement of populations, the infrastructural facilities and basic minimum amenities are to be provided at the cost of the Requisitioning Authority.

Audit noticed that even though 26 R&R colonies were completed before 2015 where a total of 10,138 PDFs (3,922 PDFs shifted to 26 completed colonies and 6,216 PDFs shifted to other 49 colonies which are in progress) occupied houses, the R&R colonies were not handed over to the concerned Local Bodies for maintenance of public infrastructure amenities like drains, supply of safe drinking water, public lighting, *etc.* This may result in infrastructural amenities becoming obsolete/non-useful/ beyond repairable conditions, *etc.*

The Government replied (August 2024) that the completed R&R colonies were handed over to the concerned Panchayat Secretaries and the remaining R&R colonies would be handed over at the earliest soon after completion of petty works which are in progress.

The details of R&R colonies handed over and to be handed over to the concerned Panchayat Secretaries were not furnished to verify the correctness of the claim.

Vijayawada  
The 11 Aug 2025

  
(SARAT CHATURVEDI)  
Principal Accountant General (Audit)  
Andhra Pradesh

Countersigned

New Delhi  
The 13 Aug 2025

  
(K. SANJAY MURTHY)  
Comptroller and Auditor General of India



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## **Appendices and Glossary**

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## Appendix 1.1

(Paragraph No. 1.1 & Page No.4)

### Statement showing the purpose and benefits of the Project

Purpose	Benefits
<b>Irrigation &amp; Domestic water supply</b>	Two main canals, Left Main Canal (LMC) and Right Main Canal (RMC) are designed to meet the irrigation demand, drinking water through distributaries in the erstwhile districts of East and West Godavari, Visakhapatnam, and Krishna. Envisaged to irrigate 2.91 lakh hectares (7.20 lakh acres) of agricultural upland areas and supply drinking water to 28.50 lakh population in 611 villages enroute RMC and LMC.
<b>Inter-linking of Rivers</b>	Diversion of 80 TMC of Godavari water through RMC of the Project to Krishna River and to augment availability of irrigation water of Krishna Delta. The water so saved <sup>322</sup> in Krishna delta would be used in upper reaches of River Krishna for irrigating needy areas in the States of Karnataka, Maharashtra and Andhra Pradesh.
<b>Industrialisation</b>	Envisaged assured water supply of 23.44 TMC to the city of Visakhapatnam for industrial needs of Steel Plant and other major Public Sector Undertakings (PSUs) <sup>323</sup> facilitating industrial growth and employment creation.
<b>River Navigation</b>	River Navigation is proposed to be continued even after construction of Earth-Cum-Rock Fill (ECRF) dam from upstream of the river to Dowlaiswaram. A leading channel is proposed, taking off from the foreshore of the reservoir on the left flank, with a Head Regulator and navigation lock to facilitate river navigation at the entrance of the proposed free flow tunnel. <p style="text-align: center;"><b>Picture 42: Navigation Channel</b></p> 
<b>Power Generation</b>	Andhra Pradesh Power Generation Corporation (APGENCO) a State-owned power generation company shall construct Polavaram Hydro Electric Project

<sup>322</sup> 35 TMC to the States of Maharashtra and Karnataka and the remaining 45 TMC to Andhra Pradesh

<sup>323</sup> Hindustan Shipyard Limited, Visakhapatnam Port Trust, Gangavaram Port, Eastern Naval Command, Bharath Heavy Plates and Vessels, Hindustan Petroleum Corporation Limited Refinery, Coromandel Fertilisers, Hindustan Zinc Limited

(PHEP) with capacity of 960MW at the location of 'D' hill on left side of the ECRF dam. PHEP involves the installation of 12 power generation units of 80MW each. The project would provide hydropower to the State connected to the State Power Grid.

## Appendix 1.2

### (Paragraph No.1.1 & Page No.4)

#### Statement showing the various components of the Project

Name of the Component	Description
<b>Headworks</b>	
(a) ECRF Dam	To facilitate storage of water, the construction of ECRF dam was proposed across the river Godavari, diverting the flood water by excavation of Approach Channel with Spillway to regulate the discharge.
(b) D-Wall	To arrest the seepage of stored water across ECRF Dam in the main river course, a D-Wall is proposed beneath ECRF dam.
(c) Spillway	The Spillway part of the project comprises of an Ogee Spillway with crest level at Elevated Level (+)25.72 m located on the right bank along with connecting Approach Channel of 2,310 m length on the upstream of Spillway. Stilling basin is provided downstream of Spillway for energy dissipation. The Spill Channel of 2,920 m length takes off from the stilling basin which joins the Pilot Channel and finally joins the river at the downstream. The total width of Spillway at its axis inclusive of left and right abutment piers is 1,118.40 m whereas the clear width of Spillway is 768 m. The Spillway is provided with 48 numbers of Radial Gates of size 16 m (width) x 20 m (height). The Full Reservoir Level (FRL) is at EL (+)45.72 m. The probable maximum flood (PMF) is estimated as 1,41,535 cubic metre/second (about 50 lakh cusec).
(d) Connectivities	To release the stored water into canals through gravity, connectivities are proposed with tunnels, Head Regulators and saddle dams on the right and left sides.
(e) Navigation Canal	To enable navigation, obstructed due to construction of ECRF dam and Spillway, a navigation canal with suitable locks is proposed to be provided.
<b>Powerhouse</b>	
	The Powerhouse with installed capacity of 960 MW involves construction of tunnel for penstocks <sup>324</sup> on the left flank side. After generation of power, the water would be let out into the river downstream through a tail race channel.
<b>Canals &amp; Distributaries</b>	
Canals	Two main canals, LMC and RMC, are lined canals and off-take on each side of the dam. The main components of both the canals include Earthwork excavation, Cement Concrete Lining and CM & CD structures. Both the canals are designed to meet the irrigation, drinking water requirements of erstwhile districts of East and West Godavari, Krishna and Visakhapatnam and industrial water requirements of Visakhapatnam city.

<sup>324</sup> a group of pipes that transport pressurised water from reservoir to the turbines installed in the hydro-electric power plant

<b>(a) Left Main Canal (LMC)</b>	The LMC, a lined canal, takes off from the Nelakota subsidiary reservoir and runs to a length of 211.27 Km. The canal crosses six major streams <i>viz.</i> Sarada, Mamidivaka Gedda, Varaha, Thandava, Yerra, Buradakalva. LMC is designed to provide irrigation facilities to an extent of 1.62 lakh hectares (four lakh acres) of ayacut in the erstwhile districts of East Godavari and Visakhapatnam besides industrial and water supply of 23.44 TMC of Godavari water to Visakhapatnam city.
<b>(b) Right Main Canal (RMC)</b>	The RMC, a lined canal, takes-off from the Head Regulator in the stilling basin and runs for a length of 178.81 Km crossing five major streams <i>viz.</i> , Kovvadakalava, Yerrakalava, Gunderu, Tammileru and Ramileru before emptying into Budameru near Vijayawada city. The water meant for diversion to Krishna River would pass through the existing Budameru Diversion Canal and joins Krishna River about 8 Km upstream side of Prakasam Barrage. The RMC is designed to provide irrigation facilities to an extent of 1.29 lakh hectare (3.20 lakh acres) of ayacut in upland areas of West Godavari and Krishna Districts besides diversion of 80 TMC of Godavari water into Krishna River near Vijayawada city as per GWDT Award.
<b>(c) Distributaries</b>	The preparation of DPR in respect of Distributaries is under process by the Department.
<b>Land Acquisition</b>	
	Land Acquisition (LA) involves alienation of land, buildings, or other assets in the affected area of the Project. PIP mainly consists of three categories of affected areas <i>i.e.</i> , Works area, Submergence area and area for R&R activities which require LA.
<b>Rehabilitation and Resettlement</b>	
	R&R entitlements, such as provision for housing units for displaced families, land-to-land to the eligible PDFs and cash benefits like annuity, subsistence grant and transportation cost for all the affected families with basic minimum infrastructural amenities to be provided at the cost of the Requisitioning Authority to ensure that the resettled population in the new village or colony can secure for themselves a reasonable standard of community life and can attempt to minimise the trauma involved in displacement.

## Appendix 2.1 (A)

### (Paragraph No. 2.2.1 & Page No.18)

#### Statement showing various contract agencies involved in execution of Headworks

Package Number	Components of works	Old contract agency and date of entrustment	Name of the new contract agency and date of entrustment	Whether SOR revised	Reasons for closure of earlier contract/ entrustment to new contract agency
<b>Main Dam Package</b>					
Investigation, Survey, Preparation of Designs & Drawings and L.P. Schedules etc., (Balance) and (1) Construction of Earth Dam Gaps I & III, Earth Cum Rock Fill Dam for Gap-II, Spill Channel, Approach Channel and Pilot Channel (2) Construction of Spillway with crest level (+) 25.72 m and its ancillary works and (3) Excavation of foundations of 960 MW Hydro Electric Powerhouse, Approach Channel, Intake structure, Tail race pool, Tail race channel etc., of Polavaram Irrigation Project and O&M for five years including defect liability period.	-Earth Dam Gaps I & III -Earth-Cum-Rock fill Dam for Gap-II	M/s. Transstroy JSC EC UES-JV, Hyderabad Agreement No.1/2012-13, dated 02.03.2013	M/s. Navayuga Engineering Company Limited, Hyderabad Lumpsum Agreement No. 01/2017-18, dated 27.02.2018	No	To improve the rate of progress.
	-Spillway -Up-stream & Down-stream Coffer dams -Approach Channel -Spill Channel -Pilot Channel -Excavation of foundations of 960 MW Hydro Electric Powerhouse, etc.			M/s. Bekem Infra Projects Limited, Hyderabad EPC Agreement No.01/2018-19, dated 10.12.2018	No
Balance works of "Investigation, Survey, Preparation of Designs & Drawings and L.P. Schedules etc. (1) Construction of Earth Dam Gaps I & III, Earth-Cum-Rock fill Dam for Gap-II, Spill Channel, Approach Channel and Pilot Channel (2) Construction of Spillway with crest level (+) 25.72 m and its ancillary works and (3) Excavation of foundations of 960 MW Hydro Electric Powerhouse, Approach Channel, Intake structure, Tail race pool, Tail race channel, etc., of Polavaram Irrigation Project and O & M for five years including defect liability period of two years.	-Earth Dam Gap-I -Earth Cum Rock Fill Dam for Gap-II	1) M/s. Navayuga Engineering Company Limited, Hyderabad Lumpsum Agreement No. 01/2017-18, dated 27.02.2018.	M/s. Megha Engineering & Infrastructures Limited, Hyderabad Lumpsum agreement No.01/2019-20, dated 08.11.2019.	No	To improve the rate of progress and to complete the project at the earliest.
	-Spillway -Radial Gates - Up-stream & Down-stream Coffer dams -Approach Channel -Spill Channel -Pilot Channel -Excavation of foundations of 960 MW Hydro Electric Powerhouse, etc.	2) M/s. Bekem Infra Projects Limited, Hyderabad EPC agreement No. 01/2018-19, dated 10.12.2018.			
<b>Connectivity Packages</b>					
Package No.65 Investigation, Soil exploration, preparation of designs, drawings and detailed estimates for the construction of Tunnel of about 919 m long, and Left flank regulator including its construction for	-Irrigation Tunnel -Head Regulator -Navigation Lock -Approach Channel-I & II -Exit Channel -Navigation Channel.	M/s Unity Infra Project Limited, Rajamahendravaram dated 16.03.2005	M/S Max Infra (I) Limited, Hyderabad dated 09.03.2019	Yes 2018-19	The Government have accorded (Memo No. ICDO1-19052/22/2018-PROJ.I-WRD, dated

the left side connectivities of Indira Sagar Polavaram Project on EPC Turnkey system.					4.11.2018) permission to terminate the contract under clause 72 of PS to APDSS.
Package No.65 Construction of Irrigation tunnel about 919 m long, Left Flank Head Regulator, Navigation Lock, Excavation of Approach Channels (I & II), Exit Channel and Navigation Channel (Balance Work)	-Irrigation Tunnel -Head Regulator -Navigation Lock -Approach Channel-I, II -Exit Channel -Navigation Channel.	M/s Max Infra (I) Limited, Hyderabad dated 09.03.2019	M/s Max Infra(I) Limited, Hyderabad dated Dt:22.11.19	No	The work was pre-closed as per the L.S contract agreement clause 7.3 for convenience.
PIPHW-Package No.66 Investigation and soil exploration, Preparation of designs, drawings and detailed estimates for the Construction of Navigation Tunnel of about 890 m long, saddle dam 'KL' and off take regulator including its constructions for left side connectivities of Indira Sagar Project (Polavaram Project) on EPC turnkey system including additional quantities of saddle dam KL and additional items depletion sluice, open cut and dismantling of Pushkra pipelines.	1.Navigation Tunnel 2. Approach Channel 3.Exit Channel 4.Saddle Dam 'KL' 5.Depletion Sluice 6.Open Cut	M/s. Sri Avantika - Sai Venkata (JV), Nellore.	-	-	-
Package No.67 Investigation, Soil exploration, preparation of designs, drawings and detailed estimates for the construction of Navigation lock left side and Navigation canal leading to river Godavari including its construction for the left side connectivities of Indira Sagar (Polavaram) Project on EPC Turnkey system.	Navigation Canal - High Head Locks	M/s Sri Jaya K.Siva Rao(JV), Hyderabad	-	-	-
Package No.62 Investigation, Soil exploration, Preparation of designs, drawings and detailed estimates for the construction of right flank regulator and off take regulator, saddle dam E & F including its construction for right side connectivities of Indira Sagar Polavaram Project on EPC Turnkey System.	Head (P) Regulator - Saddle Dam E - Saddle Dam F - Off Take Regulator	M/s Hindustan-Ratna (JV), Hyderabad	-	-	-
Package No.63 Investigation, Soil Exploration, Preparation of Design, drawing and Detailed Estimate for the construction of Tunnel of about 900 m long, excavation of Entry & Exit Channels, formation of Bunds	1.Entry Channel 2.Twin Tunnels 3.Exit Channel 4.Bunds I & II	M/s SMSIL - UANMAX (JV), Hyderabad	-	-	-

to create stilling basin at off take regulator including its construction for right side connectivities of Indira Sagar Polavaram Project on EPC Turnkey System.					
Package No.64: Investigation, Soil Exploration, Preparation of Design, drawing and Detailed Estimate for the construction of Tunnel of about 880 m long, excavation of Entry & Exit Channels including its construction for right side connectivities of Indira Sagar (Polavaram) Project on EPC Turnkey System.	1.Entry Channel 2.Twin Tunnels 3.Exit Channel 4.Bunds I & II	M/s. MAX (I) Infra Limited, Hyderabad)	-	-	-

### Appendix-2.1 (B)

(Paragraph No. 2.2.1 & Page No. 18)

Statement showing various contract agencies involved in execution of Canals

#### A. Left Main Canal

Package Number	Components of work	Old Contract agency and date of entrustment	New Contract agency and date of entrustment	Whether SOR revised	Reasons for closure of earlier contract and Entrustment to new contract agency
Package-1	Earthwork Excavation, Cement Concrete lining & CM & CD Works	M/s Progressive Construction Limited, Hyderabad, Agreement No. 75SE/2004-05, dated 20.03.2005.	M/s Surya Cons Private Limited Agreement No. 18/2017-18, dated 22.06.2017.	No	Due to Slow progress of work, part of work was deleted and entrusted to new agency under clause 60 (C) PS to APDSS.
Package-2	Earthwork Excavation, Cement Concrete lining & CM & CD Works	M/s Patel - Soma (JV) Hyderabad Agreement No.72/2004-05, dated 17.03.2005	--	Not Required	Work Completed. Final Bill is pending for payment.
Package-3	Earthwork, Lining, Structures	M/s Maytas-NCC(JV), Hyderabad Agreement No. 73/2004-05, dated 19.03.2005	M/s KMV Projects, Hyderabad	No	The Principal Secretary to the GoAP, Water Resources Department conducted a review meeting on 15.03.2016 on progress of PIPLMC Packages and instructed to delete the part of work from the scope of original contract agency and entrust the work to the other contract agency under clause 60(C) of PS to APDSS on nomination basis at original agreement rates.
Package-4	Earthwork, Lining, Structures	M/s Sabir Construction Works, Hyderabad Agreement No. 79/2004-2005, dated 23.03.2005	M/s RSR-Sagittal infra Projects, Rajamahendravaram	No	
Package-5	Earthwork, Lining, Structures	M/s. Sabir Dam & Water Works Construction Company, Hyderabad. Agreement No. 80/2004-05, dated 23.03.2005	M/s PSK-HES(JV), Hyderabad, dated 28.12.2016	No	
Package-6	Earthwork, Lining & Structures	M/s Madhucon Sino Hydro (JV), Hyderabad. Work Entrusted on 23.03.2005.	M/s BSR Infratech India Private Limited Yadhita, East Godavari District.	No	Work was pre-closed by Government.

Package-7	Earthwork, Lining & Structures	M/s KCL-JCCG(JV) Ahmedabad.	--	No	Work in Progress.
Package-8	Earthwork, Lining & Structures	M/s IVRCL-SEW & Prasad (JV), Hyderabad	--	No	Pre-closure awaited.
Package 8A	Earthwork	M/s IVRCL-SEW & Prasad (JV), Hyderabad	M/s ACL-RKICPL (JV), Hyderabad for ₹58.11 crore vide Government Memo No:19052/145/2017-PROJ – I- WRD, dated 29.12.2017, SE/PIPLMC/TUNI Lr.No: 89M dated 29.01.2018	No	Since 2011 there was no response from the Agency M/s. IVRCL - SEW & Prasad (JV), Hyderabad. Some portion of work deleted from this agency. A part of balance works were deleted from the existing agency and entrusted to M/s ACL-RKICPL (JV), Hyderabad & M/s RKN Projects Private Limited, Nellore vide GoAP Memo. No.19502/145/2017-
	Lining	M/s IVRCL-SEW & Prasad (JV), Hyderabad			
	Structures	M/s IVRCL-SEW & Prasad (JV), Hyderabad			
Package 8B	Earthwork	M/s IVRCL-SEW & Prasad (JV), Hyderabad	M/s RKN Projects Private Limited, Nellore for ₹6.58 crore vide Government Memo No.19052/145/2017-PROJ-I-WRD, dated 29.12.2017, SE/PIPLMC/TUNI Lr.No.89M dated 29.01.2018.	--	PROJ-I-WRD, dated 29.12.2017 under Clause 60 (C) duly retaining a part of work with the original agency.
	Lining	M/s IVRCL-SEW & Prasad (JV), Hyderabad			
	Structures	M/s IVRCL-SEW & Prasad (JV), Hyderabad			

### B. Right Main Canal

Package Number	Name of the Component	Old Contract agency and date of entrustment	New Contract agency and date of entrustment	Whether SOR revised	Reasons for closure of earlier contract/entrustment to new contract agency
Package -1	Earthwork Excavation forming embankment and Construction of CM & CD Works including investigation, designing estimation of Polavaram Irrigation Project Right Main Canal Package I, From Km 0.000 to Km 14.800+0.006.	M/s Patel Soma (JV), Hyderabad. Agreement No. 9SE/2004-05 dated 21.10.2004	--	Not Required	Work Completed.
Package -2	Earthwork Excavation forming embankment and Construction of CM&CD Works including investigation, designing estimation of Polavaram Irrigation Project Right Main canal Package 2, from Km 14.800 to Km 38.199 +1.154.	M/s Progressive Construction Limited, Hyderabad. Agreement No.7/2004-05 dated 20.10.2004	Works awarded to various contract agencies in piece-meal manner as given under	No	Certain parts of work deleted under clause 60 (C) of PS to APDSS, due to slow progress of work and awarded to various contract agencies.

Earthwork Excavation and forming embankment from Km 18.993 to Km 19.775 of Polavaram Irrigation Project RMC Package No.2.	M/s Madhavi Constructions, Ongole Agreement No.13SE/2016-17 dated 25.05.2016	--	Not Required	The original agency has been instructed to complete the balance work to meet the targets fixed by the government. However, the agency could not gear up the required machinery, men and material to achieve required progress to meet the targets.  Hence, it has been deleted from the scope of the agreement of the agency under Clause 60 (C) of APDSS and proposed to entrust the work to the willing agency at agreement rates duly applying G.O Ms. No.22, dated 23.02.2015 & G.O Ms. No.63 dated 12.06.2015
Earthwork Excavation from Km 35.000 to Km 35.250 of Polavaram Irrigation Project RMC Package No.2.	M/s Saggital Infra Projects, Jangareddigudem, Agreement No. 6SE/2016-17 Dt:21.05.2016	--		
Earthwork Excavation from Km 35.500 to Km 36.000 of Polavaram Irrigation Project RMC Package No.2.	Sri K.Simhadri Naidu, Agreement No. 19SE/2016-17 dated 27.05.2016	--		
Earthwork Excavation from Km 36.000 to Km 36.500 of Polavaram Irrigation Project RMC Package No.2.	M/s Saggital Infra Projects, Jangareddigudem Agreement No. 7SE/2016-17 dated 21.05.2016	--	No	
Earthwork Excavation from Km 36.500 to Km 37.000 of Polavaram Irrigation Project RMC Package No.2.	M/s Madhavi Constructions, Ongole, Agreement No. 12SE/2016-17 dated 25.05.2016	--	No	
Earthwork Excavation from Km 37.115 to Km 37.400 of Polavaram Irrigation Project RMC Package No.2.	Sri N.Chaitanya Muramulla (V), Agreement No. 20SE/2016-17 dated 27.05.2016	--	No	-do-
Laying of balance Cement Concrete Lining work from Km 37.250 to Km 37.500 and from Km 38.199 to Km 38.199 + 1.154 of PIPRMC Package No.2.	M/s Sri Krishna Engineering, Rajamahendravaram Agreement No. 29SE/2017-18, dated 17.02.2018	--	No	-do-
Laying of Cement Concrete Lining from Km 19.000 to Km 19.750, Km 36.750 to Km 37.250 and Structure gap at Super Passage at Km 16.50 (63m) & Under Tunnel at Km 30.806 (45m) of Polavaram Irrigation Project RMC Package No.2.	M/s Sri Krishna Engineering, Rajamahendravaram Agreement No. 31 SE/2017-18 dated 13-03-2018	--	No	
Laying of Cement Concrete Lining from Km 35.000 to Km 36.750 and Structure Gaps Under Tunnel at Km 17.950 (51m) & Under Tunnel at Km 27.853 (30m) of Polavaram Irrigation Project RMC Package No.2.	M/s Saggital Infra Projects, Jangareddigudem Agreement No.30SE/2017-18, dated 13.3.2018.	--	No	
Construction of Under Tunnel at Km 14.925 of PIPRMC Package No.2.	M/s Nippun Constructions, Hyderabad, Agreement No. 27SE /2016-17 dated 03.06.2016	--	No	-do-

Construction of Under Tunnel at Km 17.950 of PIPRMC Package No.2.	M/s RSV Constructions Private Limited Hyderabad, Agreement No. 39SE/2016-17 dated 28.09.2016	--	No
Construction of Single Lane Road Bridge at Km 18.270 PIPRMC Package No.2 (old).	M/s ANR Infra Projects, Rajahmehandravaram Agreement No. 5SE/2016-17 dated 21.05.2016	--	No
Construction of Single Lane Road Bridge at Km 18.270 PIPRMC Package No.2 (New agencies work order issued under 60(C)).	M/s Madhavi Constructions, Ongole, Agreement No. 9SE/2016-17 dated 25.05.2016	--	No
Construction of Under Tunnel at Km 18.950 PIPRMC Package No.2.	M/s Sri Vijetha Engineers, Vijayawada, Agreement No. 24SE/2017-18 dated 13.11.2017	--	No
Super Passage at Km 16.500.	M/s Madhavi Constructions, Ongole, Agreement No. 10SE/2016-17 dated 25.05.2016	--	No
Single Lane Road Bridge at Km 23.312.	M/s RSV Constructions Private Limited Hyderabad, Agreement No. 39SE/2016-17 dated 28.09.2016	--	No
Single Lane Road Bridge at Km 24.736.	M/s RSV Constructions Private Limited Hyderabad, Agreement No. 39SE/2016-17 dated 28.09.2016	--	No
Under Tunnel at Km 26.100.	M/s RSV Constructions Private Limited Hyderabad, Agreement No. 39SE/2016-17 dated 28.09.2016	--	No
Single Lane Road Bridge at Km 27.274.	M/s RSV Constructions Private Limited Hyderabad, Agreement No. 39SE/2016-17 dated 28.09.2016	--	No

	Single Lane Road Bridge at Km 29.057.	M/s Sri Vijetha Engineers, Vijayawada, Agreement No. 25SE/2017-18 dated 13.11.2017	--	No	
	Under Tunnel at Km 30.806.	M/s RSV Constructions Private Limited Hyderabad, Agreement No. 39SE/2016-17 dated 28.09.2016	--	No	
	Single Lane Road Bridge at Km 27.274 (New).	M/s RSV Constructions Private Limited, Hyderabad, Agreement No. 39SE/2016-17 dated 28.09.2016	--	No	
	Under Tunnel at Km 30.806 (New).	M/s Sri Krishna Engineering, Rajamahendravaram, Agreement No. 8SE/2017-18 dated 03.07.2017	--	No	
	Single Lane Road Bridge at Km 31.100.	M/s Madhavi Constructions, Ongole, Agreement No. 11SE/2016-17 dated 25.05.2016	--	No	
	Super Passage at Km 38.199 + 0.001.	Sri N.Chaitanya Muramulla (V), Agreement No. 28SE/2017-18 dated 08.02.2018	--	No	
	Single Lane Road Bridge at Km 38.947.	M/s Sri Krishna Engineering, Rajamahendravaram, Agreement No. 31SE/2016-17 dated 29.06.2016	--	No	
	Off Take Sluice/Cross Regulator at Km 38.199 + 1.154.	M/s Sri Krishna Engineering, Rajamahendravaram, Agreement No. 32SE/2016-17 dated 13.03.2018	--	No	
<b>Package-3</b>	Earthwork Excavation forming embankment and Construction of CM&CD works including investigation, designing estimation of Polavaram Irrigation Project RMC Package 3.	M/s Hindustan Construction Limited., Mumbai Agreement No. 11SE/2004-05 dated 23.10.2004	--	No	NIL

<b>Package -3- Additional Work</b>	Surplus Escape Regulator at Km 50.450 (Consists of Escape Regulator, Well Syphon & Drop and Escape Channel) of Package No. 3.	M/s. HES Infra Projects, Hyderabad, Agreement No. 29 SE/2018-19 dated 11.10.2018	--	No	This is an additional structure. (Not in original scope of work)
<b>Package -4</b>	Earthwork Excavation forming embankment and Construction of CM& CD works including investigation, designing estimation of Polavaram Irrigation Project RMC Package IV, From Km 71.500 to Km 105.100 + 2.465.	M/s Jai Prakash-Gayatri (JV), Hyderabad, Dated 23.10.2004	--	No	
<b>PIPRMC Package No.4 - 60(C)</b>	Earthwork Excavation forming embankment of main Canal complete from Km 101.700 to Km 105.1001.450 from Km 105.1002.400 to Km 105.1002.465 and Lining of the Main Canal with Cement Concrete M10 from Km 98.200 to Km 105.1002.465 and Construction of Super Passage Km 96.250, Km 97.125 and Constructions of Mechanical items of Two Cross Regulators and six number Off Take Sluices of PIPRMC.	M/s Jai Prakash-Gayatri (JV), Hyderabad, dated 23.10.2004	M/s GSR Ventures Private Limited, Hyderabad, Agreement No. 34SE/2016-17, dated 30.06.2016	No	The work was deleted from the scope of original agency under 60(C) of PS to APDSS and entrusted to the agency on nomination basis to achieve the target fixed by the government to divert river Godavari water into river Krishna through PIPRMC to safeguard the Krishna Delta ayacut during Kharif 2016.
	Supply and fixing of Head Regulator gates, Hoist arrangements and operation arrangements for Escape Regulator Km 98.100 and for Cross Regulator Km 105.100+2.465 of Polavaram Irrigation Project RMC Package No.4.		M/s HES Infra Private Limited, Hyderabad 33SE/2016-17, dated 30.06.2016	No	
	Construction of balance Works of Under Tunnel at Km 97.920 PIPRMC Package No. 4, 60 (C) works of PIPRMC.		M/s HES Infra Private Limited, Hyderabad, Agreement No. 08SE/2018-19, dated 12.07.2018	No	
	Construction of Off Take Sluice at Km 105.100+2.465 PIPRMC Package No.4 60(C) works of PIPRMC.		M/s HES Infra Private Limited, Hyderabad, Agreement No.01EE/2018-19, dated 21.07.2018	No	
	Construction of balance Works of Under Tunnel at Km 79.362 PIPRMC Package No.4, 60 (C) works of PIPRMC		M/s HES Infra Private Limited, Hyderabad, Agreement No.	No	

			35SE/2016-17, dated 07.12.2018		
	Construction of balance Works of Under Tunnel at Km 88.950 PIPRMC Package No .4, 60 (C) works of PIPRMC		M/s HES Infra Private Limited, Hyderabad 36SE/2018-19, dated 07.12.2018	No	
	Construction of balance Works of Under Tunnel at Km 103.100 PIPRMC Package No.4, 60(C) works of PIPRMC		M/s HES Infra Private Limited, Hyderabad, Agreement No.37SE/2018-19, dated 07.12.2018	No	
	Construction of balance Works of Under Tunnel at Km 105.100+0.910 PIPRMC Package No.4, 60 (C) of PIPRMC		M/s HES Infra Private Limited, Hyderabad, Agreement No. 38SE/2018-19, dated 07.12.2018	No	
<b>PIPRMC Package No.5</b>	Earthwork Excavation forming embankment and Construction of CM& CD works including investigation, designing Estimation of Polavaram Irrigation Project RMC Package 5, From Km 105.100 to Km 133.800 + 0.146	M/s IVRCL-SEW& Prasad (JV), Hyderabad, dated 23.10.2004	---	Not Required	
<b>PIPRMC Package No.5 - 60(C)</b>	Construction of Under Tunnel at Km 111.580 of PIPRMC Package-5.	M/s IVRCL-SEW& Prasad (JV), Hyderabad, dated 23.10.2004	Nadimpalli Chaitanya, Agreement No. 21SE/2015-16, dated 27.05.2016	No	The work was deleted from the scope of original agency under 60(C) of PS to APDSS and entrusted to the agency on nomination basis to achieve the target fixed by the government to divert river Godavari water into river Krishna through PIPRMC to safeguard the Krishna Delta ayacut during Kharif 2016.
	Construction of Double Lane Road Bridge at Km 112.200 of PIPRMC Package-5.		M/s Imperial Coastal Infra, Hyderabad, Agreement No. 08SE/2016-17, dated 21.05.2016	No	
	Earthwork Excavation of Main Canal at Km 112.500 to Km. 113.000 of PIPRMC Package-5.		M/s Amaravathi Constructions Technologies, Agreement No. 03SE/2017-18, dated 08.06.2017	No	
	Construction of Escape Regulator at Km 121.800 of PIPRMC Package-5.		M/s Sri Vijetha Engineers & Infra Structures Private Limited, Vijayawada, Agreement No. 01SE/2017-18, dated 26.05.2018	No	
	Construction of Super Passage at Km 133.200 of PIPRMC Package-5.		M/s Sri Krishna Enviro Engineers, Agreement No. 40SE/2018-19, dated 21.02.2020	No	

	Construction of Under Tunnel at Km 133.550 of PIPRMC Package-5.		M/s Sri Krishna Enviro Engineers, Agreement No. 03EE/2019-20, dated 23.11.2019	No	
PIPRMC Package No.5 - 60(C)	Formation of Embankment on LHS bank from Km 109.000 to Km 109.650 PIPRMC Package No.5		M/s GSR Ventures Private Limited, Hyderabad Agreement No. 03EE/2018-19, dated 27.02.2019	No	
	Earthwork Excavation of main canal from Km 120.000 to Km 126.000		M/s Sagittal Infra Projects, Agreement No. 02SE/2017-18, dated 01.06.2017	No	
PIPRMC Package No.6	Earthwork excavation, forming embankment and construction of CM & CD works including investigation, designing & estimation of Polavaram Irrigation Project RMC Package No. 6 from Km 133.800 to Km156.500 + 1.378.	M/s Progressive Constructions Limited, Hyderabad.	--	--	--
PIPRMC Package No.6 - 60(C)	Construction of Under Tunnel at Km 144.340 of Polavaram Irrigation Project RMC Package No.6.	M/s Sri Vijetha Engineers & Infrastructures Private Limited, Hyderabad.	--	--	--
	Construction of Super Passage at Km134.920 of PIPRMC Package No.6.	Sri Hanumanthu Ramu, 1-38, Kamanchikallu, Khammam (Rural Mandal), Khammam (DIST)-507003.	--	--	--
	Construction of Single Lane Road Bridge at Km 135.550 of PIPRMC Package No.6.	M/s Nithya Power & Infra Private Limited, & 4B Constructions (JV), Vijayawada	--	--	--
	Construction of Super Passage at Km 136.988 of PIPRMC Package No.6.	Sri Hanumanthu Ramu, 1-38, Kamanchikallu, Khammam	--	--	--
	Earthwork Excavation from Km 144.300 to Km 144.601 of Polavaram Irrigation Project RMC Package No.6.	M/s LNS Infrastructures Hyderabad.	--	--	--
	Formation of Embankment Reaches from Km 133.800 to Km 134.675 and Km 134.975 to Km 135.025 and Km 136.900 to Km 136.925	M/s LNS Infrastructures & Sameera's Constructions (JV), Hyderabad	--	--	--

	and Km 137.150 to Km 137.800 and Km 139.300 to Km 140.450 and Km 141.600 to Km 142.600 and Km 143.750 to Km 144.100 and Km 145.950 to Km 146.250 of PIPRMC Package No.6.				
	Construction of Double Lane Road Bridge at Km 156.500 + 0.775 of Polavaram Irrigation Project RMC Package No.6.	M/s Jyothika Infra and MPR Constructions, Sunnapurallpalli (V), Yarraguntla	--	--	--
	Construction of Double Lane Road Bridge at Km 141.600/141.425 of PIPRMC Package No.6.	M/s Sri Krishna Enviro Engineers, Hyderabad.	--	--	--
PIPRMC Package No.6 - 60(C)	Construction of Single Lane Road Bridge at Km 148.847 of PIPRMC Package No.6.	M/s Devi Engineering and Constructions Private Limited, Hyderabad, Telangana.	--	--	--
	Construction of Super Passage at Km 148.847 of PIPRMC Package No.6.		--	--	--
	Construction of Regulator cum Double Lane Road Bridge cum Offtake Sluice at Km 147.035 of Polavaram Irrigation Project RMC Package No.6.	M/s Sri Vijetha Engineers & Infrastructures Private Limited, Hyderabad.	--	--	--
	Construction of Single Lane Road Bridge cum Super Passage at Km 143.250 of Polavaram Irrigation Project RMC Package No.6.		--	--	--
	Construction of Single Lane Road Bridge cum Super Passage at Km 144.850 of Polavaram Irrigation Project RMC Package No.6.	M/s. Sew Infrastructures Limited, Begumpet, Hyderabad	--	--	--
	Construction of Double Lane Road Bridge at Km 153.308 of Polavaram Irrigation Project RMC Package No.6.	M/s RSV Constructions Private Limited, Hyderabad	--	--	--
	Construction of Single Lane Road Bridge at Km 140.380/140.175, Super Passage at 146.212, Single Lane Road Bridge at Km 150.151 & Super Passage at Km 151.929 of PIPRMC Package No.6.	M/s Nithya Power & Infra Private Limited, Vijayawada.	--	--	--
	Earthwork Excavation in Reaches from Km 135.025 to Km 135.550 and from Km 136.200 to Km 136.300 and from Km 136.950 to Km 137.100 of PIPRMC Package No.6	M/s. Sew Infrastructures Limited., Begumpet, Hyderabad.	--	--	--

	Construction of Under Tunnel at Km 151.300 of PIPRMC & Earthwork Excavation from Km.153.240 to Km 153.290 & from Km 153.325 to Km 153.415 of PIPRMC Package No.6.	M/s Sri Vijetha Engineers & Infrastructures Private Limited, Vijayawada	--	--	--
	Earthwork excavation at Km 143.925 to Km 144.075 of Package No.6 of Polavaram Irrigation Project RMC.	M/s Sri Vijetha Engineers & Infrastructures Private Limited, Vijayawada	--	--	--
	Earthwork Excavation at Km 144.775 to Km 144.850 of Package No.6 of Polavaram Irrigation Project RMC.	M/s Sri Vijetha Engineers & Infrastructures Private Limited, Vijayawada	--	--	--
PIPRMC Package No.6 - 60(C)	Earthwork excavation at Km 140.550 to Km 140.850 of Package No.6 of Polavaram Irrigation Project RMC.	M/s Sri Vijetha Engineers & Infrastructures Private Limited, Vijayawada.	--	--	--
	Earthwork excavation at Km 141.900 to Km 143.265 of PIPRMC Package No.6.	M/s Sri Vijetha Engineers & Infrastructures Private Limited, Vijayawada.	--	--	--
	Earthwork excavation for Up-stream & Down-stream Drain sectioning of Cheemalavagu at Under Tunnel at Km 144.340 of Package No.6 of Polavaram Irrigation Project RMC.	M/s LNS Infrastructures & Deal Industries (JV), Hyderabad.	--	--	--
	Construction of Regulator cum Double Lane Road Bridge cum Offtake Sluice at Km 147.035 (Part work) of PIPRMC Package No.6.	M/s Sri Krishna Enviro Engineers, Hyderabad.	--	--	--
	Construction of Regulator cum Double Lane Road Bridge cum Offtake Sluice at Km 147.035 of PIPRMC (Part work).	M/s Venkateswara Constructions, Contractors & Earthmovers, Goa.	--	--	--
	Providing cement, concrete lining work from Km 133.800 to Km 135.800, Km 140.250 to Km 141.425 and Km 141.250 to Km 146.285 of Polavaram Irrigation Project RMC Package.6 (Part of work).	M/s RSV CPL-SLC JV	--	--	--
	Providing cement, concrete lining work from Km 156.500 to Km 156.500 + 1.345 and structure gap in Polavaram Irrigation Project RMC Package No.6 (Part work).	--	--	--	--

	Construction of Super Passage at Km 156.500 + 0.700 of Package - 6 of PIPRMC.	M/s Vijetha Engineers & Infrastructures.	--	--	--
	Construction of Super Passage at Km 142.480 of Package - 6 of PIPRMC.	M/s Vijetha Engineers & Infrastructures.	--	--	--
	Construction of Under Tunnel at Km 137.315 of Package - 6 of PIPRMC.		--	--	--
<b>PIPRMC Package No.7</b>	Earthwork excavation, forming embankment and construction of CM & CD works including investigation, designing & estimation of Polavaram Irrigation Project RMC Package No. 7 from Km 156.500 to Km 176.252.	M/s Larsen & Toubro Limited, Chennai.	--	--	--
<b>PIPRMC Package No.7 - 60(C)</b>	Earthwork forming embankment and construction of CM & CD works including Investigation Drawing and Estimating of PIPRMC from Km 156.500 to Km 174.000 + 1.335 of PIPRMC of Package No.7 (deleted Part of work)	M/s BSCPL Infrastructures Limited	--	--	--
	Earthwork Excavation from Km 174.000 to Km 174.980 of PIPRMC of Package No.7.	M/s LNS & Sameera JV	--	--	--
	Earthwork Excavation from Km 174.980 to Km 175.968 of PIPRMC of Package No. 7.	M/s Sri Ram Constructions	--	--	--
	Providing Cement Concrete Lining from Km 164.500 to 164.910 of PIPRMC Package No.7.	M/s SVEC Constructions Limited	--	--	--

### Appendix 3.1

**(Reference to Paragraph No.3.1.3.2 (a), Page No.47)**  
**Details of Special Imprest advanced, recoveries made and interest to be levied**

(Amount in ₹)

Sl. No.	Month	Opening Balance	Imprest advanced during the month	Recovery during the month/ Period	Date of Recovery	Cumulative recovery of imprest	Cumulative balance of Imprest	Rate of interest (in per cent)	Number of days	Interest to be levied
1.	19.6.2017 to 30.06.2017	0	7,86,36,926	0	-	0	7,86,36,926	11	12	2,84,386
2.	01.7.2017 to 31.07.2017	7,86,36,926	7,22,63,288	0	-	0	15,09,00,214	11	31	14,09,780
3.	01.8.2017 to 31.08.2017	15,09,00,214	12,32,31,361	2,50,00,000	03/17.08.2017	2,50,00,000	24,91,31,575	11	31	23,27,503
4.	01.9.2017 to 30.09.2017	24,91,31,575	15,83,32,154	25,00,00,000	14.09.2017	27,50,00,000	15,74,63,729	11	30	14,23,645
5.	01.10.2017 to 31.10.2017	15,74,63,729	29,40,85,208	0	-	27,50,00,000	45,15,48,937	11	31	42,18,580
6.	01.11.2017 to 30.11.2017	45,15,48,937	64,23,11,357	0	-	27,50,00,000	109,38,60,294	11	30	98,89,696
7.	01.12.2017 to 31.12.2017	109,38,60,294	20,70,91,348	0	-	27,50,00,000	130,09,51,642	11	31	1,21,54,096
8.	01.01.2018 to 31.01.2018	130,09,51,642	19,62,54,305	0	-	27,50,00,000	149,72,05,947	11	31	1,39,87,595
9.	01.02.2018 to 28.02.2018	149,72,05,947	95,80,84,223	88,85,33,078	09.02.2018	116,35,33,078	156,67,57,092	11	28	1,32,20,854
10.	01.04.2018 to 30.04.2018	156,67,57,092	30,00,000	0	-	116,35,33,078	156,97,57,092	11	30	1,41,92,324
11.	01.05.2018 to 31.05.2018	156,97,57,092	63,98,84,973	62,88,19,235	14.05.2018	179,23,52,313	158,08,22,830	11	31	1,47,68,783
12.	01.06.2018 to 30.06.2018	158,08,22,830	30,00,000	0	-	179,23,52,313	158,38,22,830	11	30	1,43,19,494
13.	01.07.2018 to 31.07.2018	158,38,22,830	0	0	-	179,23,52,313	158,38,22,830	11	31	1,47,96,811
14.	01.08.2018 to 31.08.2018	158,38,22,830	8,78,30,323	122,86,80,387	11.09.2018	302,10,32,700	44,29,72,766	11	31	41,38,458
15.	01.09.2018 to 30.09.2018	44,29,72,766	98,52,08,637	0	-	302,10,32,700	142,81,81,403	11	30	1,29,12,325
16.	01.10.2018 to 31.10.2018	142,81,81,403	50,00,000	0	-	302,10,32,700	143,31,81,403	11	31	1,33,89,448
17.	01.11.2018 to 30.11.2018	143,31,81,403	90,00,000	0	-	302,10,32,700	144,21,81,403	11	30	1,30,38,900
			<b>446,32,14,103</b>			<b>302,10,32,700</b>	<b>144,21,81,403</b>	11		<b>16,04,72,678</b>
18.	01.12.2018 to 31.03.2019	144,21,81,403	-	123,06,64,364	29.03.2019	425,17,32,700	21,15,17,039	11	121	<b>5,25,90,231</b>
19.	01.04.2019 to 31.03.2023	21,15,17,039	-	-	-	-	<b>21,15,17,039</b>	11	48 months	<b>9,30,67,497</b>
<b>Total Interest</b>										<b>30,61,30,406</b>

### Appendix 3.2

(Reference to Paragraph No.3.1.3.2 (b), Page No.48)  
Interest to be collected (at 11 per cent) on amount paid through Special Revolving Fund

(Amount in ₹)

Sl. No.	Period	Revolving Fund paid during the period	Cumulative balance of Revolving Fund paid	Recovery during the period	Cumulative recovery of Revolving Fund paid	Balance amount of Revolving Fund paid during the period	Number of days	Interest to be Collected
1.	28.03.2018 to 02.04.2018	3,00,00,000	3,00,00,000	0	0	3,00,00,000	6	54,247
2.	13.04.2018 to 30.04.2018	15,00,00,000	18,00,00,000	0	0	15,00,00,000	18	8,13,699
3.	05.05.2018 to 28.05.2018	19,00,00,000	37,00,00,000	19,50,00,000	19,50,00,000	17,50,00,000	24	12,65,753
4.	04.06.2018 to 25.06.2018	20,00,00,000	57,00,00,000	24,50,00,000	44,00,00,000	13,00,00,000	22	8,61,918
5.	02.07.2018 to 30.07.2018	15,00,00,000	72,00,00,000	11,00,00,000	55,00,00,000	17,00,00,000	30	15,36,986
6.	02.08.2018 to 27.08.2018	15,65,00,000	87,65,00,000	18,25,00,000	73,25,00,000	14,40,00,000	26	11,28,329
7.	03.09.2018 to 29.09.2018	16,00,00,000	103,65,00,000	19,40,00,000	92,65,00,000	11,00,00,000	27	8,95,068
8.	01.10.2018 to 31.10.2018	24,00,00,000	127,65,00,000	12,00,00,000	104,65,00,000	23,00,00,000	31	21,48,767
9.	16.11.2018 to 28.11.2018	29,00,00,000	156,65,00,000	38,00,00,000	142,65,00,000	14,00,00,000	13	5,48,493
10.	03.12.2018 to 29.12.2018	26,00,00,000	182,65,00,000	0	142,65,00,000	40,00,00,000	27	32,54,795
11.	04.01.2019 to 24.01.2019	21,50,00,000	204,15,00,000	32,00,00,000	174,65,00,000	29,50,00,000	21	18,66,986
12.	01.02.2019 to 27.02.2019	23,50,00,000	227,65,00,000	0	174,65,00,000	53,00,00,000	27	43,12,603
13.	12.03.2019 to 25.03.2019	26,00,00,000	253,65,00,000	50,00,00,000	224,65,00,000	29,00,00,000	14	12,23,562
14.	03.04.2019 to 30.04.2019	24,00,00,000	277,65,00,000	0	224,65,00,000	53,00,00,000	28	44,72,329
15.	04.06.2019 to 28.06.2019	22,00,00,000	299,65,00,000	50,00,00,000	274,65,00,000	25,00,00,000	25	18,83,562
16.	05.07.2019 to 31.07.2019	100,00,000	300,65,00,000	0	274,65,00,000	26,00,00,000	27	21,15,616
<b>Total</b>		<b>300,65,00,000</b>		<b>274,65,00,000</b>				<b>2,83,82,713</b>

### Appendix 3.3

(Reference to Paragraph No.3.1.3.2 (c), Page No.49)

**Details of assets and liabilities of M/s TRANSSTROY-JSC EC UES (JV), Hyderabad**

#### A. Assets

Sl. No.	Description	Amount (₹ in crore)	Remarks
1.	Bank Guarantees encashed and available with WRD (₹485.83 crore + ₹204.00 crore)	689.83	Nil
2.	Retention money available with the Department in cash	37.20	
3.	IPC 44-part bill pending with PAO	13.03	
4.	IPC 45-part bill pending in Division Office	0.91	
5.	Price Adjustment payable (Payable: ₹75.42 crore– Already Paid: ₹30.42 crore)	45.00	
6.	IPC 46 and final bill	33.69	
7.	Amount payable towards Designs and Investigation	20.37	
8.	Difference in Seigniorage charges	2.00	
<b>Total</b>		<b>842.03</b>	

#### B. Liabilities

Sl. No.	Description	Amount (₹ in crore)	Remarks
1.	Mobilisation advance to be recovered	404.86	Nil
2.	Interest on Mobilisation Advance	158.64	
3.	Special Imprest to be recouped	144.22	
4.	Balance Steel recovery	3.91	
5.	Liabilities to other agencies	136.38	
<b>Total</b>		<b>848.01</b>	
6.	Penalty proposed by Department as per section 60 (C) of PS to APDSS (five per cent of contract value of ₹5,385.91 crore)	269.29	Proposed by the Department
7.	Interest on Special Imprest as objected by Audit	30.61	Objection raised and included by Audit
8.	Electricity charges payable to APEPDCL	26.02	Not included by the Department
<b>Grand Total</b>		<b>1,173.93</b>	

### Appendix 3.4

(Reference to Paragraph No.3.1.4.1, Page No.52)

**Pending compliance with Quality Control remarks by the Construction Divisions**

Chief Engineer, QC Wing, Andhra Region, Dowlaiswaram					
Sl. No.	Reference to Inspection Notes	Construction Division	Name of work	Status	Pending since
1.	94M, 24.02.2021	PIPHW, Division No.3, Polavaram	Main Dam work – M/s. MEIL	Pending	24.02.2021
2.	157M, 19.04.2022				19.04.2022
Superintending Engineer, QC, V&E Circle, Dowlaiswaram					
1.	261M, 29.03.2006	PIPHW, Division No.2, Polavaram	Package-63 & 64	Pending	29.03.2006
2.	1337M, 07.12.2007				07.12.2007
3.	837M, 10.09.2008		Package-62		10.09.2008
4.	49M, 23.01.2012		23.01.2012		
5.	57M, 02.02.2016	PIPHW, Division No.1, Polavaram	Main Dam Work	Pending	02.02.2016
6.	218M, 12.05.2016	PIPHW, Division No.2, Polavaram	Package-62	Pending	12.05.2016
7.	497M, 13.10.2016	PIPHW, Division No.1, Polavaram	Main Dam work – M/s. Transtroy	Pending	13.10.2016
8.	72M, 06.03.2017				06.03.2017
9.	269M, 11.08.2017				11.08.2017

10.	321M, 25.09.2017				25.09.2017
11.	364M, 09.11.2017				09.11.2017
<b>Executive Engineer, QC &amp; QA Division, PIP Dam Site, Mylavaram at Polavaram</b>					
1.	881M, 01.12.2016	PIPHW, Division No.1, Polavaram	Main Dam work – M/s. Transtroy	Pending	01.12.2016
2.	18M, 10.01.2017				10.01.2017
3.	102M, 21.02.2017				21.02.2017
4.	192M, 20.03.2017				20.03.2017
5.	153M, 20.07.2019	PIPHW, Division No.2, Polavaram	Package-63 & 64	Pending	20.07.2019
6.	317M, 09.12.2019	PIPHW, Division No.1, Polavaram	Main Dam work – M/s. MEIL	Pending	09.12.2019
7.	9M, 22.01.2020	PIPHW, Division No.2, Polavaram	Package-62	Pending	22.01.2020
8.	59M, 29.02.2020	PIPHW, Division No.1 & 4, Polavaram	Main Dam work – M/s. MEIL	Pending	29.02.2020
9.	93M, 20.03.2020	PIPHW, Division No.1 & 3, Polavaram	Main Dam work – M/s. MEIL	Pending	20.03.2020
10.	128M, 23.05.2020				23.05.2020

### Appendix 3.5

(Reference to Paragraph No. 3.2.2.1, Page No.58)

Statement showing the amount of interest free advance given for procurement of steel  
(Amount in ₹)

Month & Year	Bill paid quantity (Cumulative) (in MT)	Consumption (Cumulative) (in MT)	Rate per MT	Quantity of steel procured in advance (in MT)	Amount	Interest at 12 per cent per annum
	(A)	(B)	(C)	(D)=(A)-(B)	(E)=(C) X (D)	(F)= one per cent of (E) per month
<b>a. Procurement of Structural Steel</b>						
December 2021	881.98	10.77	37,500	871.21	3,26,70,375	3,26,703.75
January 2022	881.98	11.99	37,500	869.99	3,26,24,625	3,26,246.25
February 2022	1451.99	15.86	37,500	1,436.13	5,38,54,875	5,38,548.75
March 2022	1773.74	396.80	37,500	1,376.94	5,16,35,250	5,16,352.50
April 2022	1773.74	396.80	37,500	1,376.94	5,16,35,250	5,16,352.50
May 2022	1773.74	512.38	37,500	1,261.36	4,73,01,000	4,73,010.00
June 2022	4054.02	512.38	37,500	3,541.64	13,28,11,500	13,28,115.00
July 2022	4054.02	512.38	37,500	3,541.64	13,28,11,500	13,28,115.00
August 2022	4054.02	858.06	37,500	3,195.96	11,98,48,500	11,98,485.00
September 2022	4054.02	1045.25	37,500	3,008.77	11,28,28,875	11,28,288.75
October 2022	4054.02	1758.33	37,500	2,295.69	8,60,88,375	8,60,883.75
November 2022	4054.02	2498.48	37,500	1,555.54	5,83,32,750	5,83,327.50
<b>Total (I)</b>						<b>91,24,428.75</b>
<b>b. Procurement of Reinforced Steel</b>						
June 2022	745.74	141.61	34,000	604.13	2,05,40,420	2,05,404.20
July 2022	745.74	141.61	34,000	604.13	2,05,40,420	2,05,404.20
August 2022	1885.18	698.39	34,000	1,186.79	4,03,50,860	4,03,508.60
September 2022	1885.18	904.99	34,000	980.19	3,33,26,460	3,33,264.60
October 2022	3452.42	1694.57	34,000	1,757.85	5,97,66,900	5,97,669.00
November 2022	3452.42	3136.24	34,000	316.18	1,07,50,120	1,07,501.20
<b>Total (II)</b>						<b>18,52,751.80</b>
<b>Grand Total (I) +(II)</b>						<b>1,09,77,180.55</b>

### Appendix 3.6

**(Reference to Paragraph No.3.2.3, Page No.59)**  
**Statement showing the date of procurement of E&M equipment / components and Interest During Construction (IDC) paid**

(Amount in ₹)

Sl. No.	Description	Quantity Received /Total Quantity	Material Receipt Certificate number / Date	Date of Erection	Part bill number / Date	Amount (Supply plus Freight and insurance including GST)	Avoidable expenditure towards IDC at 11 per cent per annum	
							Days in excess of six months	Amount Paid
1.	<b>DT Cone</b>		<b>Received:12 sets Total Quantity: 12 sets</b>					
	Unit-10	1 Set	31/ 20.01.2023	--	06 / 17.02.2023	1,33,02,155	186	7,56,006
	Unit-11	1 Set	40/ 23.02.2023	--	07/ 28.02.2023	1,33,02,155	175	7,11,296
	Unit-12	1 Set	41/ 23.02.2023	--	08 / 25.03.2023	1,33,02,155	147	5,97,488
2.	<b>Manhole Assembly for Spiral Access</b>		<b>Received:11 sets Total Quantity: 12 sets</b>					
	Unit-1	1 Set	42 / 23.02.2023	--	10 / 12.04.2023	62,50,295	130	2,48,276
	Unit-2	1 Set	42 / 23.02.2023	--	10 / 12.04.2023	62,50,295	130	2,48,276
	Unit-3	1 Set	42 / 23.02.2023	--	10 / 12.04.2023	62,50,295	130	2,48,276
	Unit-5	1 Set	57 / 10.04.2023	--	11 / 26.05.2023	62,50,295	85	1,62,334
	Unit-6	1 Set	57 / 10.04.2023	--	14 / 22.07.2023	62,50,295	28	53,475
	Unit-7	1 Set	57 / 10.04.2023	--	14 / 22.07.2023	62,50,295	28	53,475
3.	<b>Pit Liner (Upper)</b>		<b>Received: 9 sets Total Quantity: 12 sets</b>					
	Unit-1	1 Set	56 / 10.04.2023	--	11 / 26.05.2023	42,65,640	85	1,10,788
	Unit-2	1 Set	69 / 30.04.2023	--	11 / 26.05.2023	42,65,640	85	1,10,788
	Unit-3	1 Set	70 / 30.04.2023	--	11 / 26.05.2023	42,65,640	85	1,10,788
	Unit-4	1 Set	86 / 27.06.2023	--	14 / 22.07.2023	42,65,640	28	36,495
	Unit-5	1 Set	86 / 27.06.2023	--	14 / 22.07.2023	42,65,640	28	36,495
4.	<b>Wound Pole Assembly</b>		<b>Received: 4 sets Total Quantity: 12 sets</b>					
	Unit-1	1 Set	78 / 03.06.2023	---	RA-12/ 07.06.2023	4,40,95,391	74	9,97,046
	Unit-2	1 Set	79 / 08.06.2023	---	RA-13/ 28.06.2023	4,40,95,391	53	7,14,100
5.	Powerhouse Earthing & Grounding Lot-1	1LOT/ 63 LOT	5 / 17.06.2022	---	RA- 01/18.06.20 22	1,53,15,862	428	20,02,974
6.	EOT Crane of Unloading Bay	1 No. / 1 No.	32 / 09.02.2023	--	06 / 17.02.2023	8,94,24,270	186	43,07,016
7.	EOT Crane of Service Bay	1.850 Nos / 2 Nos						
	Service Bay-Crane-I	0.9 numbers	54 / 07.04.2023	--	10 / 12.04.2023	10,88,64,229	130	43,24,329

Service Bay- Crane-I	0.1 numbers	68 / 30.04.2023	--	11 / 26.05.2023	1,20,96,025	85	31,41,607
<b>Total</b>					<b>41,26,27,603</b>		<b>1,89,71,328</b>

### Appendix 4.1

(Reference to Paragraph No. 4.2, Page No.63)  
**Status of all packages in RMC given on EPC mode**

Package Number	Name of the Contract Agency	Agreement value (₹ in crore)	Date of Commencement of work	Work to be completed by	Physical Progress (in percentage)	Financial Progress (in percentage)	Expenditure (₹ in crore)
1.	M/s Patel Soma	248.44	21.10.2004	20.10.2006	100	100*	239.35
2.	M/s Progressive Constructions	236.25	21.10.2004	20.10.2006	98	95	181.00
3.	M/s Hindustan Construction	321.30	23.10.2004	22.10.2006	100	99	320.67
4.	M/s Jaya Prakash-Gayatri	263.18	23.10.2004	22.10.2006	95	80	340.83
5.	M/s IVRCL-SEW	289.45	23.10.2004	22.10.2006	82	75	353.21
6.	M/s Progressive Constructions	196.74	21.10.2004	20.10.2006	95	94	146.02
7.	M/s L&T Chennai	180.70	21.10.2004	20.10.2006	68	65	149.60
<b>Total</b>		<b>1,736.06</b>					<b>1,730.68</b>

Source: Records of the Department

\* Certain minor quantities in canal lining and structures were deleted.

### Appendix 4.2

(Reference to Paragraph No.4.2.1.1, Page No.63)  
**Statement showing the details of percentage of earthwork done and paid**

Sl. No.	Chainage (in Km)		Length (in meter)	Bay wise bid percentage	Work done (length in meter)	Work done percentage of bid component paid (F)=(D) x(E)/(C)
	(A)	(B)				
	From	To				
1.	171.000	171.250	250	0.46	150	0.276
2.	171.250	171.500	250	0.46	250	0.460
3.	171.500	171.750	250	0.46	250	0.460
4.	171.750	172.000	250	0.46	250	0.460
5.	172.000	172.250	250	0.46	150	0.276
6.	172.250	172.500	250	0.46	250	0.460
<b>Total</b>				<b>2.76</b>		<b>2.392</b>

### Appendix 4.3

(Reference to Paragraph No. 4.3, Page No.65)  
**Status of all packages in LMC given on EPC mode**

Package Number	Contractor	Agreement value (₹ in crore)	Commencement of work	Work to be completed by	Physical Progress	Financial Progress	Expenditure (₹ in crore)
1	M/s Progressive Constructions	256.08	20.03.2005	20.03.2007	75	76	190.38
1A	M/s Surya Constructions	171.39	22.06.2017	22.06.2018	95	95	255.31
2	M/s Patel-Soma JV	242.52	17.03.2005	17.03.2007	100	93	227.03
3	M/s Maytas-NCC	212.94	19.03.2005	19.03.2007	91	90	190.45
3A	M/s KMV Project	73.66	08.06.2018	07.06.2019	76	76	105.44
4	M/s Sabir Dam Works	206.80	23.03.2005	22.03.2007	88	88	123.69
4A	M/s RSR Infra	108.86	21.07.2017	20.07.2018	62	50	158.33
5	M/s Sabir Dam Works	181.60	23.03.2005	22.03.2007	63	87	71.04
5A	M/s PSK-HES	142.88	28.12.2016	27.12.2017	73	66	119.06
6	M/s Madhucon	196.20	23.03.2005	22.03.2007	65	43	120.66
6A	M/s BSR Infra	152.03	15.02.2019	14.02.2020	70	65	17.00
7	M/s KCCL-JV	175.00	14.03.2005	13.03.2005	63	55	464.22
8	M/s IVRCL	113.38	09.03.2006	08.03.2008	28	05	33.49
<b>Total</b>		<b>2,233.34</b>					<b>2,076.10</b>

Source: Records of the Department

### Appendix 4.4

(Reference to Paragraph No.4.3.1.3, Page No.68)  
**Increase in cost due to delayed entrustment of National Highway crossings (Bridges)**  
**(₹ in crore)**

Name of the work	Amount estimated as per SSR 2004-05 rates	Now awarded at agreement value	Increase in cost
NH-16 Bridge crossing at Km 55.410 at Burugupudi Village	4.94	22.60	17.66
NH-16 Bridge crossing at Km 64.375 at Prathipadu Village	5.08	15.27	10.19
Two NH Crossing at Km 33.559 and Km 41.650	9.12	39.36	30.24
Three NH Crossing at Km 77.175, Km 88.035 and Km 93.700	17.10	55.60	38.50
One NH crossing at Km 103.658	6.39	23.48	17.09
<b>Total</b>	<b>42.63</b>	<b>156.31</b>	<b>113.68</b>

## Appendix 4.5

(Reference to Paragraph No. 4.4.3, Page No.73)

**Statement showing the amounts to be recovered from the original contract agencies as difference of execution cost due to entrustment of works deleted under clause 60 (C) of APDSS to new contract agencies**

(₹ in crore)

Sl. No.	Package Number	Executing Agency	Agreement Amount of the work	Deletion value of balance work from original contractor	Revised agreement amount for completion of the work	Excess amount incurred for completion of the work	Total Finished Value of Work	Five per cent over the ECV to be recovered
A	B	C	D	E	F	G	H=(D)+(G)	I = H x five per cent
		<b>Right Main Canal</b>						
1.	Package-VI	M/s. Progressive Construction Limited, Hyderabad	196.74	49.32	95.48	46.16	242.90	12.15
2.	Package-VII	M/s L&T Limited, Chennai	180.70	23.05	74.34	51.29	231.99	11.60
3.	Package-IV	M/s. Jayaprakash – Gayatri (JV), Hyderabad	301.30	36.01	65.57	29.56	330.86	16.54
4.	Package-V	IVRCL-SEW-Prasad JV, Hyderabad	295.92	6.48	13.75	7.27	303.19	15.16
5.	Package-II	M/s. Progressive Construction Limited, Hyderabad	236.25	56.31	78.99	22.68	258.93	12.95
		<b>Left Main Canal</b>						
6.	Package- I	M/s. Progressive Construction Limited, Hyderabad	254.88	38.78	171.39	132.61	387.49	19.37
7.	Package-III	M/s Matyas-NCC (JV), Hyderabad	212.94	20.26	73.66	53.40	266.34	13.32
8.	Package-IV	M/s Sabir Dam & Water works construction company, Hyderabad	206.80	66.07	108.86	42.79	249.59	12.48
9.	Package-V	M/s Sabir Dam & Water works construction company, Hyderabad	181.60	95.91	142.88	46.97	228.58	11.43
10.	Package-VI	M/s Madhucon Sino Hydro (JV), Hyderabad	196.20	70.28	153.46	83.18#	279.38	13.97
11.	Package-VIII	M/s IVRCL-SEEW & Prasad (JV), Hyderabad	113.38	62.06	NA	NA*	NA	5.66*
		<b>Total</b>	<b>2,376.71</b>	<b>524.53</b>	<b>978.38</b>	<b>515.91</b>		<b>144.63</b>

# Variation is due to adoption of actual quantities as per approved designs

\*As the work was not executed by the 60 (C) contractors and pre-closed by the Government, the work could not be progressed any further. Hence, the amount recoverable under clause 60(C) of PS to APDSS is calculated on the original contract value (₹113.38 crore) only and not on the finished contract value.

## Appendix 4.6

(Reference to Paragraph No.4.4.5, Page No.74)

**Statement showing the details of recoveries not made by the Department**

Package Number	Description	Amount (₹ in crore)
<b>Left Main Canal</b>		
1	Non-recovery of amount towards removal of deposited earth	2.34
3	Non-recovery of amount towards removal of deposited earth	3.21
	Non-recovery of Labour Cess	1.65
	Non-recovery of National Academy of Construction Cess	0.16
	Recovery towards removal of deposited earth	0.48
	Interest on mobilisation advance	0.91
4	Interest on mobilisation advance	0.91
5	Mobilisation Advance principal and interest	10.68
6	Non-recovery of liquidated damages	2.52
	Recovery towards shifting of HT & LT Lines already paid to the original agency	1.20
	Recovery for the provision for additional items in the estimate of 60 (C) balance works to be recovered from original agency	0.30
<b>Right Main Canal</b>		
2	HPCL & GAIL pipeline crossings	14.06
2	Shifting of electrical lines of APCPDCL	0.16
<b>Total</b>		<b>37.67</b>

## Appendix 5.1

(Paragraph No. 5.1.1 & Page No.76)

**Procedure for Land Acquisition**

Sl. No.	Procedure followed
<b>1. Assessment</b>	
(a) Assessment of land for work and Submergence Area	<p>Total extent of land required for submergence area and work area in the districts of West Godavari, East Godavari and Khammam of undivided Andhra Pradesh was assessed based on Preliminary Survey and study of Topo sheets of Survey of India for the Project. The survey reports were adopted in the DPR prepared in 2005-06 and 2010-11 Price Level of PIP. Fly leveling, double check levelling, chain surveying with Prismatic Compass and Light Detection and Ranging (LIDAR) survey methods were used in assessment of total extent of required land.</p> <p>The total extent of land assessed by WRD was mapped with records provided by the Revenue Authorities to arrive at the Land Plan (LP) Schedules. LP schedules consist of the extent of land in each survey number village wise and requisition for the same sent to the LA authorities for acquisition.</p>
(b) Assessment of land requirement for R&R activities	<p>The R&amp;R Officers identify the PDFs (through Socio Economic Survey) in the affected area and assess the actual land requirement for acquisition towards R&amp;R activities.</p> <p>The Administrator (As per Section 16 of RFCTLARR Act, 2013) for R&amp;R shall conduct a survey and undertake the census of affected families which shall include particulars <i>viz.</i>, affected land and immovable properties, livelihoods lost, affected public utilities, Government buildings, <i>etc.</i> Based on the survey, the Administrator prepares a draft R&amp;R Scheme which shall include particulars of R&amp;R entitlements of each PDF and where</p>

	<p>resettlement of affected families is involved along with list of Government buildings, details of the public amenities and infrastructural facilities which are to be provided in the Resettlement Area. Accordingly, R&amp;R Officers assess the requirement of land for construction of R&amp;R colonies and allotment of land-to-land to PDFs and sends requisitions of land to LAO for acquisition.</p> <p>R&amp;R authorities in collaboration with LA authorities conducts the Gram Sabhas (to consider requisitions of villagers), <i>etc.</i>, to identify the location of land required for R&amp;R activities along with details of survey number wise extent of land.</p>
<p><b>2. Publication of Preliminary Notification</b></p>	
	<p>Section 11 of RFCTLARR Act, 2013 and RFCTLARR Rules, 2014 prescribe that after filing of land requisition<sup>325</sup> by requiring body, the LA Authorities issue Preliminary Notification (PN) for land to be acquired and conducts survey regarding classification, extent, and ownership of land.</p> <p>The PN contains details of land to be acquired and notification shall be issued in the Official Gazette, in two daily newspapers circulating in the locality of such area of which one shall be in the regional language, in the local language in the Panchayat, Municipality or Municipal Corporation, as the case may be and in the offices of the District Collector, the Sub-Divisional Magistrate and the Tehsil. Also, the PN shall be uploaded on the website of the appropriate Government and in the affected areas, in such manner as may be prescribed.</p>
<p><b>3. Conduct of Survey</b></p>	
	<p>The officer authorised by the District Collector shall conduct preliminary survey (Section 12 of the RFCTLARR Act, 2013) of land proposed for acquisition. The survey<sup>326</sup> would consist of (a) taking levels of any land (b) to dig or bore into the sub-soil (c) to do all other acts necessary to ascertain whether the land is adapted for such purpose (d) to set out the boundaries of the land proposed to be taken and the intended line of the work (if any) proposed to be made thereon and (e) to mark such levels, boundaries and line by placing marks and cutting trenches and where otherwise the survey cannot be completed and the levels taken and the boundaries and line marked, to cut down and clear away any part of any standing crop, fence or jungle.</p>
<p><b>4. Filing of Objections</b></p>	
	<p>Any person interested in any land which has been notified under sub-section (1) of Section 11, as being required or likely to be required for a public purpose, may within 60 days from the date of the publication of the Preliminary Notification, object to (a) the area and suitability of land proposed to be acquired (b) justification offered for public purpose (c) the findings of the Social Impact Assessment report.</p>
<p><b>5. Disposal of objections</b></p>	
	<p>The District Collector shall issue a notice in Form-VI(B) and after hearing all objections and making enquiry as provided under Section 15(2) shall submit a report along with his recommendations on the objections to the District Collector for decision. The decision of the District Collector shall be final.</p>

<sup>325</sup> LP Schedules from WRD and land requirement from R&R authorities

<sup>326</sup> shall be conducted, after giving atleast 60 days prior of such survey, in the presence of the owner or a person authorised by the owner in writing

### Appendix 5.2 (A)

(Paragraph No. 5.2.4 (i) & Page No. 84)

**Statement showing variation in extent of Patta Land as per WRD and Revenue Department**

(in acres)

Sl. No.	Name of the Habitation /Village	Extent of land requisitioned by WRD (i.e. L.P. Schedules)	Extent as per Awards given by Revenue Department
1.	Sarugudu Habitation	96.63	92.13
2.	Yerravaram Habitation & Thutigunta Village	465.86	472.49 (423.41 + 41.26 + 7.82)
3.	Kondrukota Village (Spell 1 + Spell 2 + Spell 3 + Spell 4)	1,492.12	1,303.64
4.	Telladibbalu Habitation	32.43	33.33 (23.99 + 9.34)
5.	Sivagiri Habitation	212.93	224.93
6.	Narlavaram Revenue Village	654.86	625.25
7.	Koida Revenue Village	380.15	318.38
8.	Tirumalapuram Village	715.83	693.77
9.	Chigurumamidi Revenue Village	464.21	590.08
10.	Repakogommu Village	1,991.51 (1,825.11 + 172.40)	1,768.04 (1,638.67 + 129.37)
11.	Thatkurugommu Revenue Village	1,511.15	1,439.43
12.	Ganugulagondi Revenue Village	149.10	71.92
13.	Madipalli (Manturu) Village	1,159.79	746.29
14.	Pudipalli Village	272.91	240.66
15.	Yenugulagudem (Devi Patnam Village)	450.63	387.99
<b>Total</b>		<b>10,050.11</b>	<b>9,008.33</b>

### Appendix 5.2 (B)

(Paragraph No. 5.2.4 (ii) & Page No.84)

**Statement showing variation in extent of Government Land as per WRD and Revenue Department**

(in acres)

Sl. No.	Name of the Habitation /Village	Extent of land requisitioned by WRD (i.e. L.P. Schedules)	Government land as per survey records of Revenue Department
1.	Sarugudu Habitation	34.39	31.39
2.	Yerravaram Habitation & Thutigunta Village	149.11	89.87
3.	Kondrukota Village (Spell1 + Spell 2 + Spell 3 + Spell 4)	92.43	NA
4.	Telladibbalu Habitation	109.30	NA
5.	Sivagiri Habitation	111.19	NA
6.	Narlavaram Revenue Village	26.03	150.78
7.	Koida Revenue Village	50.03	14.75
8.	Tirumalapuram Village	18.22	48.50
9.	Chigurumamidi Revenue Village	203.40	191.75
10.	Repakogommu Village	1,089.67 (1,071.28 + 18.98)	1,369.53
11.	Thatkurugommu Revenue Village	1,532.30	929.23

12.	Ganugulagondi Revenue Village	3.31	25.72
13.	Madipalli (Manturu) Village	150.20	211.17
14.	Pudipalli Village	269.33	49.01
15.	Yenugulagudem (Devi Patnam Village)	46.73	74.70
<b>Total</b>		<b>3,885.64</b>	<b>3,186.40</b>

NA – Not Available

### Appendix 5.2 (C)

(Paragraph No. 5.2.4 (iii) & Page No.84)

Statement showing variation in extent of D-Patta Land as per WRD and Revenue Department

(in acres)

Sl. No.	Name of the Habitation /Village	Extent of land requisitioned by WRD (i.e. L.P. Schedules)	Extent as per award/ Survey records
1.	Sarugudu Habitation	0	5.00
2.	Yerravaram Habitation & Thutigunta Village	0	30.94
3.	Kondrukota Village (Spell 1 + Spell 2 + Spell 3 + Spell 4)	0	12.23
4.	Telladibbalu Habitation	0	NA
5.	Sivagiri Habitation	0	NA
6.	Narlavaram Revenue Village	0	463.18 (338.40 + 124.78)
7.	Koida Revenue Village	0	7.28
8.	Tirumalapuram Village	0	191.42 (89.90 + 101.52)
9.	Chigurumamidi Revenue Village	0	163.16 (113.83 + 49.33)
10.	Repakagommu Village	0	945.75
11.	Thatkurugommu Revenue Village	0	1,331.75 (400.65 + 931.10)
12.	Ganugulagondi Revenue Village	0	1.07
13.	Madipalli (Manturu) Village	0	9.60
14.	Pudipalli Village	0	15.91
15.	Yenugulagudem (Devi Patnam Village)	0	0
<b>Total</b>		<b>0</b>	<b>3,177.29</b>

### Appendix 5.3

(Paragraph No. 5.2.5 (i) & Page No. 85)

Statement showing time gap in issue of Preliminary Notification after receipt of LP Schedule

Sl. No.	Name of the Habitation	Date of receipt of LP Schedule	Date of Preliminary Notification	Time gap (in months)
1.	Chigurumamidi	20.08.2007	18.10.2008	13
2.	Narlavaram colony	20.08.2007	18.10.2008	13
3.	Ganugulagondi-I	27.01.2014	03.02.2015	13
4.	Ch. Ramanayyapeta	27.09.2007	05.01.2009	15
5.	Penikalapadi	15.04.2008	10.07.2010	15
6.	Mulapadu	06.09.2007	10.12.2009	27
7.	Toyyeru-II	06.09.2007	10.12.2009	27

8.	Seetharam	27.09.2007	30.09.2010	36
9.	Katchuluru	27.09.2007	30.09.2010	36
10.	Kondrukota (includes villages of Kothuru, Vadapalli, Tellavaram)	08.05.2007	15.09.2010 17.09.2010 20.09.2010 08.10.2010	40
11.	Dandangi	29.08.2007	02.11.2010 11.08.2010 16.06.2011	46
12.	Gangampalem	29.08.2007	01.08.2012	60
13.	Thutigunta	08.05.2007	07.01.2013	66
14.	Kondamodalu	28.08.2009	06.12.2013 09.04.2015 29.04.2015 01.06.2015 28.08.2015 10.11.2015	75
15.	Sivagiri	11.04.2007	13.11.2013	79
16.	Yerravaram	08.05.2007	29.10.2015	89
17.	Telladibbalu (included in Sirivaka)	21.05.2007	13.11.2013 03.02.2015	92
18.	Manturu-I	15.04.2008	10.07.2010 24.01.2010 02.07.2010 25.01.2010 27.01.2016	93
19.	Mettaveedhi	15.04.2008	29.06.2016	98
20.	Madipalli	15.04.2008	12.07.2016	99

### Appendix 5.4

(Paragraph No. 5.3.1 & Page No.86)

**Statement showing incorrect land awards to individual whose names were not found in Revenue records**

Sl. No.	Survey Number	Extent of land acquired (in acres)	Name of the beneficiary as per LA award	Land value as per Award (in ₹)	Award Details
1.	37/3	1.53	Sunnam China Butchiyya, S/o Sankuru Dora	0	Spell-1
2.	39/1	2.20	Sunnam China Butchiyya, S/o Sankuru Dora	0	
3.	46/3	0.45	Kasi Prasada Rao	1,57,500	
4.	46/4	0.47	Kasi Navven Kumar, S/o Late Raja Rao	1,64,500	
5.	46/9	0.84	Kasi Vara Rathna David Raju, S/o Sanjeeva Rao	2,94,000	
6.	60/4	0.57	Kasi Raja Rao, S/o Venkata Ratnam	1,99,500	
7.	60/5	0.74	Kasi David Raju, S/o Raja Ratnam	2,59,000	
8.	60/6	0.62	Kasi Raja Rao, S/o Venkata Ratnam	2,17,000	
9.	61/1	0.76	Veerabattula Venkateswara Rao, S/o Samuel	2,66,000	
10.	61/2	0.64	Rameswarapu Appayamma, W/o Venkateswara Rao	2,24,000	
11.	63/6	0.57	Rameswarapu Appayamma, W/o Venkateswara Rao	1,99,500	

12.	63/12	0.59	Rameswarapu Appayamma, W/o Venkateswara Rao	2,06,500	
13.	63/14	0.05	Rameswarapu Appayamma, W/o Venkateswara Rao	17,500	Spell-2
14.	79/5	1.09	Damisetti Pramila Rao, W/o Tamma Rao	3,81,500	
15.	80/3	1.51	Pentapati Pulla Rao, S/o Ganga Raju	5,28,500	
16.	83/1	3.29	Pentapati Lakshmana Swamy, S/o Ganga Raju	11,51,500	
17.	89/8	0.50	Mynam Chandra Rao, S/o Abbulu	1,75,000	
18.	90/11	0.39	Usse Venkateswara Rao, S/o Rama Swamy	1,36,500	
19.	91/14	0.20	Usse Venkateswara Rao, S/o Rama Swamy	70,000	
20.	100/6	4.74	Bonam Bramaramba, W/o Lakshmi Narayana	16,59,000	
21.	162/25	0.67	Chode Chandramma, W/o Bujji	0	Spell-3
22.	164/3	0.18	Pamarthi Venkata Reddy	63,000	
23.	165/2	0.30	Made Pentamma, W/o Butchanna Dora	0	
24.	166/8	1.46	Pamarthi Veera Swamy, S/o Venkata Reddy	5,11,000	
25.	172/1	3.71	Pentapati Tirupathi Rao, S/o Rama Rao	12,98,500	
26.	195/9	1.58	Peruri Butchi Raju, S/o Seshayya	5,53,000	
27.	201/1	2.05	Matta Ramachandra Rao, S/o Sriramulu	7,17,500	Spell-4
28.	201/2	1.11	Badiga Premalatha, W/o Rama Krishna	3,88,500	
29.	201/4	0.10	Usse Venkatesh, S/o Rama Swamy	35,000	
30.	202/1	0.62	Dasari Durga Prasad, S/o Suryachandra Rao	2,17,000	
31.	202/1	0.62	Dasari Satyanarayana, S/o Ramprakash Rao	2,17,000	
32.	202/1	1.18	Dasari Appa Rao, S/o Tatabbai,	4,13,000	
33.	203/1	0.10	Mandavalli Veera Venkata Satya Nageswara Rao, S/o Surya Narayana	35,000	
34.	203/5	0.20	Narsarapu Posayya, S/o Sri Ramulu	70,000	
35.	203/6	0.15	Narsarapu Veera Raju, S/o Aravala Raju	52,500	
36.	203/7	0.34	Narsarapu Posayya, S/o Sri Ramulu	1,19,000	
37.	203/8	0.72	Uppala Anjaneyulu, S/o Narasanna	2,52,000	
38.	205/2	1.14	Manchala Edukondalu, S/o Manganna	3,99,000	
39.	205/4	0.39	Mukku Surya Narayana, S/o Ganniyya	1,36,500	
40.	205/5	0.33	Narasarapu Nageswara Rao, S/o Aravalu	1,15,500	
41.	205/5	0.34	Narasarapu Veera Raju, S/o Aravala Raju	1,19,000	
42.	205/5	0.33	Narasarapu Surya Chandra, S/o Aravala	1,15,500	
43.	205/6	0.30	Tadimalla Srinu, S/o Yedukondalu	1,05,000	
44.	205/7	1.21	Mukku Surya Narayana, S/o Ganniyya	4,23,500	
45.	206/1	1.70	Pamarthi Veera Swamy, S/o Venkata Reddy	5,95,000	
46.	208/1	0.74	Bandi Subba Rao, S/o Rama Swamy	2,59,000	
47.	208/7	1.66	Matta Jaya Lakshmi, W/o Satyanarayana	5,81,000	
48.	215/3	1.61	Peruri Butchi Raju, S/o Seshayya	5,63,500	
49.	225/1	3.14	Pentapati Venkata Satyanarayana Rao, S/o Satyanarayana Murthy	10,99,000	
50.	225/2	1.04	Matta Anasuya, W/o Sri Ramulu	3,64,000	
51.	226/2	0.20	Matta Subba Rao, S/o Gangajalam	70,000	
52.	226/3	0.25	Matta Jaya Lakshmi, W/o Satyanarayana	87,500	
53.	227/1	0.81	Narasarapu Nageswara Rao, S/o Aravalu	2,83,500	
54.	227/1	0.81	Narasarapu Surya Chandra, S/o Aravala	2,83,500	
55.	227/1	0.80	Narasarapu Veerraju, S/o Aravalu	2,80,000	
56.	227/1	0.05	Narasarapu Veerraju, S/o Aravalu	17,500	

57.	227/2	0.94	Narsarapu Posayya, S/o Sri Ramulu	3,29,000
58.	227/3	2.05	Narasarapu Veerapandu, W/o Raju	7,17,500
59.	227/4	1.11	Narasarapu Posayya, S/o Sri Ramulu	3,88,500
60.	229/5	2.72	Pentapati Pulla Rao, S/o Rama Rao	9,52,000
61.	229/6	4.15	Pentapati Venkata Satyanarayana Rao, S/o Late Satyanarayana Murthy	14,52,500
62.	231/4	0.62	Tatimallu Srinu, S/o Edukondalu	2,17,000
63.	231/5	0.79	Tadimalla Srinu, S/o Yedukondalu	2,76,500
64.	236/3	2.22	Kagitala Seshagiry, S/o Rammurthy	7,77,000
65.	241/2	3.19	Kanchumarthi Satyanarayana, S/o Ramanna	11,16,500
66.	247/1	0.64	Mukku Arlamma, W/o Surya Rao	2,24,000
67.	248/2	2.85	Pentapati Tirupathi Rao, S/o Ramarao	9,97,500
68.	248/3	2.47	Pentapati Venkata Satyanarayana Rao, S/o Late Satyanarayana Murthy	8,64,500
69.	249/2	2.94	Narsarapu Posayya, S/o Sri Ramulu	10,29,000
70.	259/2	0.37	Tatimallu Srinu, S/o Edukondalu	1,29,500
71.	259/5	0.99	Matta Subba Rao, S/o Gangajalam	3,46,500
72.	259/5	0.12	Matta Subba Rao, S/o Gangajalam	42000
73.	259/6	1.43	Matta Jaya Lakshmi, W/o Satyanarayana	5,00,500
74.	266/5	1.48	Pentapati Tirupathi Rao, S/o Ramarao	5,18,000
75.	267/5	0.28	Narasarapu Surya Chandra, S/o Aravala	98,000
76.	267/5	0.28	Narasarapu Nageswara Rao, S/o Aravala	98,000
77.	267/5	0.28	Narasarapu Veerajju, S/o Aravala	98,000
78.	268/3	5.32	Narasarapu Surya Chandram, S/o Sri Ramulu	18,62,000
79.	268/3	0.02	Narasarapu Posa Rao, S/o Sri Ramulu	7,000
		<b>90.95</b>	<b>Total</b>	<b>3,01,87,500</b>

### Appendix 5.5

(Paragraph No. 5.4.6 & Page No. 96)

Cases where excess extent of land-to-land awarded to the beneficiary in Sarugudu

Sl. No.	Name of the Beneficiary	Extent of Land-to-land given in the award (in acres)
1.	Punem Sri Lakshmi, W/o Singanna Dora	4.31
2.	Kovvasu Bulli Dora, S/o Butchayya	2.61
3.	Yendapalli Chellamma, W/o Butchayya	3.32
4.	Kovvasu Bojji, S/o Gangayya	2.94
5.	Kunjam Pothamma, W/o Narasimha Rao	4.30
6.	Yendapalli Bala Raju, S/o Ramayya	3.71
7.	Made Borrayya, S/o Siramayya	4.75
8.	Yendapalli Mukkanna Dora, S/o Ganga Raju	3.24
9.	Yendapalli Srinu, S/o Ganga Raju	3.24
10.	Kovvasu Venkateswarlu, S/o Chenchayya	6.18
11.	Kovvasu Nageswara Rao, S/o Ganga Raju	3.38
12.	Madakam Raju, S/o Venkata Reddy	4.64
13.	Kovvasu Venkateswara Rao, S/o Late Rama Swamy	3.24
14.	Madakam Bondu Dora, S/o Singayya	3.44

15.	Madakam Venkayamma, W/o Siramayya	3.44
<b>Total</b>		<b>56.74</b>

### Appendix 5.6

(Paragraph No. 5.4.6 & Page No.96)

Cases where excess extent of land-to-land awarded to the beneficiary in Yerravaram

Sl. No.	Name of the Beneficiary	Extent of land-to-land given in the award (in acres)
1.	Chintalada Peddabbai, S/o Chinna Reddy	2.82
2.	Chintalada Seethamma, W/o Rami Reddy	4.49
3.	Votla Ram Mohana Reddy, S/o Subbareddy	2.68
4.	Chintalada Jogireddy, S/o Peda Mukkareddy	4.80
5.	Chintalada Nagamani, W/o Mutyalareddy	4.79
6.	Chintalada Venkata Lakshmi, W/o Veerabadra Reddy	6.18
7.	Chintalada Peda Somireddy, S/o Malli Reddy	5.08
8.	Chintalada Rami Reddy, S/o Babul Reddy	6.18
9.	Chintalada Kanthamma, W/o Mangi Reddy	6.18
10.	Chintalada Laxmi Devi, W/o Laktchi Reddy	4.14
11.	Chintalada Somireddy, S/o Borra Reddy	4.11
12.	Pogala Venkayamma, W/o Subbareddy	3.01
13.	Kovvasu Veerayamm, W/o Siramayya	6.18
14.	Kovvasu Kameswara Rao, S/o Siramayya	5.08
15.	Kovvasu Gangaraju, S/o China Sankuru	5.11
16.	Kovvasu Ramarao, S/o China Veeraswamy	6.18
17.	Kondla Rambabu, S/o SriRamamurthy	3.73
18.	Musalamma Devata (Grama Devata)	2.76
19.	Kadabala Kannamma, W/o Venkatareddy	6.03
20.	Tamam Venkateswararao, S/o Singaiah	3.37
21.	Kunjam Sankuru, S/o Pandayya	3.32
22.	Kovvasu Siramaih, S/o Peda Pentayya	2.81
23.	Kovvasu Gangaraju, S/o China Pentayya	2.85
24.	Yandapalli Chellamma, W/o Butchiah	2.86
25.	Yendaplli Veerayamma, W/o Venkateswara Rao	2.81
26.	Kovvasu China Veeraswamy, S/o Gangannadora	5.98
27.	Kovvasu Veeraswamy, S/o Ganga Raju	3.08
28.	Kovvasu Sankuru Dora, s/o Ganga Raju	3.03
29.	Paida Subba Rao, S/o Late Chellaiah	2.72
30.	Vetti Gangadevi, W/o Bikku	6.18
31.	Parshika Paparao, S/o Chellaiah	5.05
32.	Parshika Lakshmi, W/o Pentayya	3.41
33.	Kasika Buchaiah, S/o Kannaiah	3.77
34.	Sundru Indira, D/o Babu Rao	5.79
35.	Kakara Bodidora, S/o Gangaraju	2.53
36.	Uyikam Badramma, W/o Bojji Dora	3.51
37.	Yandapalli Veerayamma, W/o Chinamukkayya	5.69
38.	Kunjam China Kannayya, W/o Butchayya	3.90
39.	Pamuleri Rajareddi, S/o Latchireddi	2.62
40.	Kadumuri Chinnareddi, S/o Veerapureddi	3.42
<b>Total</b>		<b>168.23</b>

### Appendix 5.7

(Paragraph No. 5.4.6 & Page No. 96)

**Cases where excess extent of land-to-land awarded to the beneficiary in Telladibbalu**

Sl. No.	Name of the Beneficiary	Extent of land-to-land given in the award (in acres)
1.	Kadhala Chinnamma, W/o Devi Reddy	2.54
2.	Kondla Somi Reddy, S/o Latchireddi	6.18
<b>Total</b>		<b>8.72</b>

### Appendix 5.8

(Paragraph No. 5.4.6 & Page No. 96)

**Cases where excess extent of land-to-land awarded to the beneficiary in Sivagiri**

Sl. No.	Name of the Beneficiary	Extent of land-to-land given in the award (in acres)
1.	Araganti Busamma, W/o Kannam Reddi	6.12
2.	Araganti Krishna Reddy, S/o Kannam Reddi	6.12
3.	Badisa Krishna Murthi, S/o Tammanna Dora	3.33
4.	Badisa Rama Lakshmi, W/o Late Chellanna Dora	2.88
5.	Badisa Venkateshwarulu, S/o Tammanna Dora Late	3.34
6.	Badisa Durga Rao, S/o Sriramulu	3.36
7.	Badisa Venkata Reddi, S/o Sitayya Sitanna Dora	4.41
8.	Araganti Subbayamma, W/o Peda Lachi Reddi	3.12
9.	Kondla Ramayamma, W/o Somi Reddi	4.99
10.	Araganti Krishna Kumari, W/o Krishna Reddi	6.12
11.	Araganti Devireddi, S/o Lachi Reddi	6.18
12.	Kaarukonda Mangayamma, W/o Mukka Reddi	3.11
13.	Kovvasu Appa Rao, S/o Bodi Dora	5.41
14.	Mulem Kannayya, S/o late Buchanna Dora	3.72
15.	Karatam China Kanamma, W/o Venkanna	6.18
16.	Karatam Kanamma	2.73
17.	Kondla Lakshmi, W/o Ramireddi	3.55
18.	Kotneti Jogi Reddy, S/o Lachi Reddi	6.58
19.	Kopala Lakshmi, W/o Late Tammi Reddi	3.12
20.	Kurla Pandamma, W/o Pothi Reddi	3.53
21.	Indela Satyanarayana Reddy, S/o Tammi Reddy	5.25
22.	Nadipudi Peddabbai Reddi, S/o late Rami Reddi	5.70
23.	Kattulla Subba Lakshmi, W/o Chinna Reddi	2.74
24.	Araganti Sreenivasa Reddi, S/o Lachi Reddi	2.74
25.	Araganti Bojjamma, W/o late Veerapu Reddy	2.75
26.	Tama Lakshmi, W/o Venkateswarlu	6.18
27.	Ketchala Abbulu Reddy, S/o late Akki Reddy	3.02
28.	Kopala Veerabhadra Reddi, S/o Tammireddi	3.12
29.	Kopala Satyanarayana Reddi, S/o Tamma Reddi	3.12
30.	Kopala Bapuji Reddi, S/o Tamma Reddi	3.12
31.	Tama Venkateswarlu, S/o Ganga Raju	6.18
<b>Total</b>		<b>131.82</b>

## Appendix 5.9

(Paragraph No. 5.4.6 & Page No. 97)

Cases where excess extent of land-to-land awarded to the beneficiary in Dandangi

Sl. No.	Award Number	Name of the Beneficiary	Extent of land-to-land given in the award (in acres)
1.	04/2015	Boraga Somanna Dora	6.18
2.	04/2015	Kunjam Chandrayya	5.09
3.	04/2015	Kunjam Bodidora	6.03
4.	03/2015	Eeka Durgamma	6.18
<b>Total</b>			<b>23.48</b>

## Appendix 6.1

(Paragraph No. 6.2.3 & Page No.108)

Statement showing delay between date of publication of PN and completion of SES

Sl. No.	Name of the Habitation	Date of PN for village site	Date of completion of SES	Number of months taken for completion of SES from date of PN
1.	Pallapuru	05.05.2015	27.06.2017	25
2.	Kothamamidigondi	09.04.2015		26
3.	Sarugudu	05.05.2015		25
4.	Pydakulamamidi	05.05.2015		25
5.	Telladibbalu	17.09.2014		33
6.	Madhapuram	19.05.2015		25
7.	Sivagiri	13.11.2013		43
8.	Mulagalagudem	09.04.2015		26
9.	Tallavaram	28.04.2015		25
10.	Kotthuru	19.05.2015		25
11.	Koruturu	14.11.2011		67
12.	Kondrukota	09.04.2015		26
13.	Thutigunta	05.05.2015		25
14.	Tekuru	06.12.2013		42
15.	Sirivaka	06.12.2013	27.06.2017	42
16.	Yerravaram	05.05.2015		25
17.	Gajulagondi	09.04.2015		26
18.	Cheeduru	25.09.2012		57
19.	Vadapalli	28.04.2015		25
20.	Gubbalampalem	20.06.2012	22.08.2017	62
21.	Tadiwada	31.12.2015	26.08.2017	19
22.	Nadipudi	05.01.2016		19
23.	Teliperu	11.01.2016	21.08.2017	19
24.	K.Veeravaram	07.07.2012	30.09.2016	50
25.	Talluru	26.05.2016	26.08.2017	15
26.	Somarlapadu	23.01.2016		19
27.	Mettagudem	31.12.2015		19
28.	Lingavaram	22.06.2009	22.08.2017	98
29.	Suddakonda	20.06.2016	29.08.2017	14
30.	Kokkeragudem	05.01.2016	26.08.2017	19
31.	Gangampalem	01.08.2012	24.07.2017	59
32.	K.Gonduru	03.02.2015	21.08.2017	30
33.	Peddagudem	20.06.2016	26.08.2017	14
34.	Kondamodalu	05.08.2015	26.08.2017	24

35.	Katchuluru	30.09.2010	21.08.2017	82
36.	Seetharam	30.09.2010	21.07.2017	81
37.	Chinnaramanayya	13.08.2010	21.08.2017	84
38.	Kethanapalli	13.01.2016	30.09.2017	20
39.	Kothagudem	13.01.2016	29.09.2019	44
40.	Devipatnam	28.04.2015	30.09.2019	53
41.	Damannapalli	06.02.2015	30.08.2019	54

## Appendix 6.2

(Paragraph No. 6.3.2.1(i) & Page No.114)

Cases of land-to-land where excess extent was allotted than acquired from PDFs

Sl. No.	Name of the Habitation	Name of the Beneficiary	Father/Husband name	Extent of land acquired as per LA Award (in acres)	Survey Number	Extent Land-to-land allotted (in acres)	Excess extent of land allotted towards land-to-land (in acres)	Survey Number in LA award/land-to-land proceeding
1.	Sivagiri	Badisa Krishna Murthi	Tammanna Dora	3.33	49/4B	3.34	0.01	9
2.		Araganti Devireddi	Lachireddi	6.18	46/1A & 28/1A & 29//2A	6.21	0.03	18
3.		Kotneti Latchi Reddi	Jogi Reddi	1.62	68//8	6.20	4.58	35
4.		Mulem Sankuramma	Aravalu	0.42	38//1	0.52	0.10	48
5.		Tama Lakshmi	Venkateswarlu	6.18	10/1 & 10/2 & 52/2	6.20	0.02	1 & 2
6.	Thutigunta-ST- Spell 1, 2, 3	Rami Reddy	Chinthalada Babul Reddy	6.18	250/1A,254, 291/6	6.20	0.02	B30
7.	Thutigunta-ST	Seethamma	Chinthalada Rami Reddy	4.495	38/1A1A	6.20	1.705	B2
8.		Suggi Reddy	Kalli Chinna Reddy	1.04	50/1B2	2.04	1.00	B6
9.		Krishna Reddy	Chinthalada China Rami Reddy	2.12	255/2B	2.77	0.65	23
10.		Venkata Lakshmi	Chinthalada Veera Reddy	6.18	241/2A, 441/1A	6.20	0.02	B12
11.		Lakshmi Kantham	Chinthalada Gopala Reddy	1.16	292/2	3.30	2.14	A1
12.		Tammi Reddy	Chinthalada Mangi Reddy	1.65	299/1A	3.05	1.4	B17
13.		Bondu Dora	Madakam Singayya	3.44	188/2A1 D, 188/1D	3.78	0.34	D29
14.		Durga Rao	Made Kannayya	1.49	88/19	1.53	0.04	Spell 3 (101,314,479,535,665 &759)
15.		Kama Raju	Made Kannayya	1.08 +0.01(p)	88/16	1.54	0.46	Spell 3 (315,480,536 &758)
16.		Vadapalli-ST	Posilarao	Sunnam Gangaraju	5.88	63/2B6	6.16	0.28

### Appendix 6.3

(Paragraph No. 6.3.2.1 (ii) & Page No. 114)

#### Cases of lesser extent of land-to-land allotted than the land acquired from PDFs

Sl. No.	Name of the Habitation	Name of the Beneficiary	Father/ Husband name	Extent of land acquired as per LA Awards (in acres)	Survey Number of the land acquired	Land allotted (in acres)	Lesser extent of land allotted (in acres)	Survey Number in LA award/ land-to-land proceeding
1.	Sivagiri	Badisa China Ramayamma	W/o Bojji Rao	2.37	68/2	1.00	1.37	13
2.		Badisa Venkateswarlu	S/o Tammanna Dora late	3.34	39/1	1.00	2.34	16
3.		Badisa Venkata Reddi	S/o Sitayya Sitanna Dora	4.41	47/1A & 49/4C	3.43	0.98	8
4.		Araganti Subbayamma	W/o Peda Latchi Reddi	3.12	85/4A1 & 85/7A	2.02	1.10	54
5.		Kondla Ramayamma	W/o Somi Reddi	4.99	48/2A	2.43	2.56	37
6.		Araganti Krishna Kumari	W/o Krishna Reddi	6.12	66/1	2.38	3.74	20
7.		Thama Bala Raju	S/o Butcanna Dora	1.53	46/1B	0.37	1.16	6
8.		Kovvasu Appa Rao	S/o BodiDora	5.41	38/2	1.50	3.91	44
9.		Karatam China Kannamma	W/o Venkanna	6.18	58/2A	0.68	5.50	46
10.		Kondla Lakshmi	W/o Ramireddi	3.55	99/4	2.45	1.10	38
11.		Kurla Pandamma	W/o Pothi Reddi	3.53	73/1A3	2.44	1.09	36
12.		Araganti Bojjamma	W/o Late Veerapu Reddy	2.75	39/4	0.42	2.33	21
13.		Pitapuram Durgamma (Grama Devatha), Peddapuram Mutyalamma (Grama Devatha)		3.59	69/2	3.54	0.05	50
14.		Ketchala Veerapu Reddi, Badisa Subba Rao	S/o Bhimareddi, S/o Gangarju,	1.54	68/5	1.27	0.27	43
15.		Nadikudiri Bangaramma	W/o Narasimha Rao	1.95	68/6	0.73	1.22	40
16.		Tama Venkateswarlu	S/o Ganga Raju	6.18	64 & 65/2D	2.01	4.17	2
17.		Tama Bajar	S/o Ganga Raju	2.01	68/11	1.01	1.00	5
18.		Tama Sitamma	W/o Durga Prasad, Tama Ganga Raju	2.00	65/2A	1.00	1.00	4
19.	Thutigunta-ST- Spell 1, 2, 3	Chinna Reddy -	Araganti Brahmi reddy	0.67	291/2	0.44	0.23	B41
20.	Thutigunta-ST	Lakshmi	Kondla Venkata Reddy	1.24	50/1B1	1.12	0.12	B10
21.	Vadapalli-ST	Pothamma	Kunjam Chinna Buchiyya	4.06	83/1F	3.08	0.98	Spell 1 (25,29,45,107,158,218,229)
22.	Vadapalli-ST	Venkayamma	Sunnam Pothuraju	6.7	30/3	3.48	3.22	Spell 1 (34,41,106,135,157,170,212,215,234,268,299)

## Appendix 6.4

(Paragraph No. 6.3.2.2 & Page No. 115)

**Cases of land-to-land allotment to persons whose names are not in the LA Awards**

Sl. No.	Name of the Habitation	Name of the PDF	Survey Number	Extent of land-to-land given (in acres)	Sl. No. of PDF in land-to-land proceedings	
1.	Sivagiri	Tama Gangaraju	67 & 66/4	4.96	3	
2.		Tama Tammannadora	58/2B	1.00	7	
3.		Badisa Akkamma	21/1A	1.00	11	
4.		Badisa Chellannadora	48/2B	0.88	12	
5.		Badisa Gangaraju	68/3	1.00	14	
6.		Badisa Buchannadora	99//2	0.71	15	
7.		Badisa Buchireddy	65/2B	0.42	17	
8.		Araganti Suramma	66/3	0.74	22	
9.		Araganti Kanamareddy	68/4	1.00	23	
10.		Chinnam Annamreddy	99/3	2.77	24	
11.		Chundru Chinnamma	65/2C	1.39	25	
12.		Nesika Ammanna	68//2 & 69//3	4.06	30	
13.		Tumbudu Bapanamma	49/4A	5.44	33	
14.		Tumbudu Veerayamma	68//10	1.44	34	
15.		Kopala Tammireddy	41/3B	2.00	39	
16.		Korla Sambamma	39//2	0.60	41	
17.		Kechela Appireddy	68//7 & 99//5	0.89	42	
18.		Goli Chinnamma	40/2A	0.64	45	
19.		Nadipudi Reddamma	40/2B	1.14	47	
20.		Tama Tammannadora	98/16A1 & 98/13B	2.19	51	
21.		Badisa ramayamma	98/13C	0.20	53	
22.		Araganti Lakshamma	85/5B1	1.08	55	
23.	Thutigunta	Venkateswara Reddy	246/2, 134/2C	1.4 + 1.4	A4, B38	
24.		Rami Reddy	82/1A, 246/2, 134/2D	1.82 + 1.82	A3, B37	
25.	Yerravaram	Chintalada Lakshmi Kamthamma	292/2	3.30	A1	
26.		Kalli Ayanam Reddy	82/1A	1.00	A2	
27.		Kalli Lachireddi	38/1A1A	1.92	B4	
28.		Chintala Somireddy	299/4A	6.2	B15	
29.		Morthibaada Kanthamma	63/1A	0.86	B16	
30.		Kalli Bulli Reddy	63/1B	3.22	B19	
31.		Kalli Ayalam Reddy	134/2A, 291/4	3.21	B20	
32.		Yerravaram	Chintalada Krishna Kumari	299/1B	2.42	B31
33.			Chintalada Jogireddy	101/1A	2.24	B36
34.			Chintalada Pedda Rami Reddy	134/2B, 246/2	1.4, 0.64	B39, A5
35.	Mulla Subbayamma		291/5	3.34	B40	
36.	Vetla Seethamma		259/1A	2.2	B42	
37.	Kalli Somi Reddy		269/2A	3.21	B46	
38.	Sode Ramayamma		12/2B	1.00	C2	
39.	Sode Singaramma		12/2G	1.11	C7	
40.	Sode Buchamma		12/2H	3.01	C8	
41.	Kov vasu Ramaswamy		12/2K	0.15	C11	
42.	Kovvasu Buchamma		130/1B	2.37	D5	
43.	Kovvasu Ramaswamy	130/1D (2.50), 140/1A1A2C (2.22)	4.72	D7		

44.		Made Siramayya	134/2A	6.20	D9
45.		Konuthula Suryarao	140/1A2B	1.00	D14
46.		Kovvasu Narasamma	140/1A2C	1.00	D15
47.		Mulem Bhadramma	140/1A2D	1.00	D16
48.		Yandapalli Kovvadamma	140/1A2E	1.00	D17
49.		Yandapalli Nagamma	140/1A2I	1.00	D19
50.		Kovvasu Veeramma	140/1A2J	0.96	D20
51.		Madakam Sankuru	140/1A2M	0.67	D22
52.		Kalum Ramayamma	140/1A2P	1.32	D25
53.		Made Lakshamma	189/1A9	1.08	D38
54.		Kalum Buchamma	189/1A10	1.00	D39
55.		Kalum Verayamma	189/1A11	1.00	D40
56.		Made Rajamma	189/1A12	0.95	D41
57.		Yandapaalli Veerawamy	193/2A2	0.79	D43
58.		Kalum Ramayamma	193/2C	1.18	D44
59.	Tallavaram	Sangam Durgamma W/o Pandayya	101/1B1	2.37	3 of Tallavaram Proceeding 1
60.		Thati Singaramma W/o Paddayya	83/5	1.45	2 of Tallavaram Proceeding 2
61.		Kaki Posiyya S/o Arjuna Rao	90/4	2.32	14 of Tallavaram Proceeding 1
62.		Midiyam Pandayya S/o Jaggayya	90/4	0.76	15 of Tallavaram Proceeding 1
63.		Madakam Buchanna Dora S/o Bhimayya	65/1	3.03	23 of Tallavaram Proceeding 1
64.		Kunjam Rama Lakshmi W/o Nageswararao Grand Daughter on behalf of late Boragam Pentaiiah	81/6	0.51	26 of Tallavaram Proceeding 1
65.		Made Pentayya S/o Mallayya	61/6	2.1	28 of Tallavaram Proceeding 1
66.		Boragam Ramayamma W/o Gangaraju	61/6	0.68	30 of Tallavaram Proceeding 1
67.		Made Venkayamma W/o Rama Rao	84/3	1.24	33 of Tallavaram Proceeding 1
68.		Made Buchamma W/o Borayya	79 83/1	1.42 1	38 of Tallavaram Proceeding 1
69.		Made Posiyya S/o Bhimaraju	73/3	0.47	41 of Tallavaram Proceeding 1
70.	Tallavaram	Made Posiyya S/o Made Lakshmi	73/3	0.61	42 of Tallavaram Proceeding 1
71.		Paddam Pothamma W/o Sahadevudu	79	1.41	43 of Tallavaram Proceeding 1
72.		Made Venkata Lakshmi W/o Rama Rao	83/3	0.29	45 of Tallavaram Proceeding 1
73.		Yendapalli Krishna ( <i>Beneficiary has been selected in Sample</i> )	85/1	1.13	48 of Tallavaram Proceeding 1
74.		Ginnepalli Ramalakshmi S/o Sankuru	85/5 88/13	0.5 2.53	49 of Tallavaram Proceeding 1
75.		Made Lakshmi W/o Koteswara Rao	88/9	0.67	61 of Tallavaram Proceeding 1
76.		Jeedi Pandayya S/o Surayya	85/14	0.51	8 of Tallavaram Proceeding 2

77.		Veeka Mutyalamma W/o Rama Krishna	83/5	1.15	1 of Tallavaram Proceeding 2	
78.	Vadapalli	Sode Bhimaraju S/o Buchaiah	95/1	2.89	2 of Vadapalli Proceeding 1	
79.		Sode Bhimaraju S/o Buchaiah	95/4C2A	1.67	3 of Vadapalli Proceeding 1	
80.		Sode Durga Prasad S/o Bhimaraju	95/4C2E	0.5	7 of Vadapalli Proceeding 1	
81.		Sode Durga Prasad S/o Bhimaraju	83/1C	3.32	9 of Vadapalli Proceeding 1	
82.		Nune Venkata Gangadhararao S/o Kondayya	83/1D	1.57	10 of Vadapalli Proceeding 1	
83.		Sunnam Posemma W/o Ramulu ( <i>Beneficiary has been selected in Sample</i> )	30/2	2.77	21 of Vadapalli Proceeding 1	
84.		Kovvasu Renuka D/o Butchanna Dora	26/2	2.5	24 of Vadapalli Proceeding 1	
85.		Tama Seetha W/o Chellarao	14/6E1	0.2	33 of Vadapalli Proceeding 1	
86.		Yandapalli Chellamma W/o Abbai Dora	16/1B4	0.74	40 of Vadapalli Proceeding 1	
87.		Nune Lakshmi W/o Durgayya	6/1A 1/1B2	1.2 1.39	45 of Vadapalli Proceeding 1	
88.		Sunna Ramu S/o Singayya	1/1B4	1.56	49 of Vadapalli Proceeding 1	
89.		Vetti Veerayamma W/o Krishna	1/3B1	1	51 of Vadapalli Proceeding 1	
90.		Sunnam Sylaja W/o Nageswara Rao	1/3B2 3/6A2	0.39 0.34	52 of Vadapalli Proceeding 1	
91.		Karatam Venkanna S/o Venkatesu	3/6A1	1	53 of Vadapalli Proceeding 1	
92.		Sunnam Dileep Sai Chandu	217/2A	1.33	1 of Vadapalli Proceeding 2	
93.		Valla Buchamma	189/2a4	1.58	2 of Vadapalli Proceeding 2	
94.		Kunjam Peda Buchayya S/o Konayya	193/2B 188/2a2a	3.02 0.02	3 of Vadapalli Proceeding 2	
95.		Vadapalli	Madakam Durga Rao S/o Bapiraju	188/2a2a	1.72	4 of Vadapalli Proceeding 2

## Appendix 6.5

**(Paragraph No. 6.3.2.3 & Page No. 116)**

### Cases of land-to-land allotment more than the maximum permissible limit

Sl. No.	Sl. No. in the land-to-land Order	Name of the beneficiary	Father/Husband name	Village where land-to-land allotted	Survey Number	Extent of land-to-land allotted (in acres)	Land-to-land orders of RDO, Jangareddigudem
<b>Sivagiri (12 cases)</b>							
1.	3	Tama Gangaraju	Tammannadora	Rachannagudem & Gopalapuram	67 & 66/4	4.96	RC No.706/2010, dated 04.04.2016
2.	9	Badisa Krishnamurthy	Tammannadora		49/4B	3.34	RC No.706/2010, dated 04.04.2016
3.	10	Badisa Sriramulu	Tammannadora		58/2C & 73/1A1	3.36	RC No.706/2010, dated 04.04.2016
4.	18	Araganti Devireddy	Lachireddy		46/1A & 28/1A & 29/2	6.21	RC No.706/2010, dated 04.04.2016
5.	19	Araganti Krishnareddy	Kannamreddy		47/1B	6.12	RC No.706/2010, dated 04.04.2016
6.	24	Chinnam Annamreddy	Yerramreddy		99/3	2.77	
7.	26	Korukonda Mangayamma	Pentareddy		29//1	3.11	
8.	30	Nesika Ammanna	Veeraswamy		68/2 & 69/3	4.06	
9.	32	Indela Satyanarayanareddy	Tammireddy		68/1	5.25	
10.	35	Kotneti Lachireddy	Jogireddy		68/8	6.20	
11.	50	Peddapuram Mutyalamm	-		69/2	3.54	
12.	1&2	Tama Lakshmi	Venkateswarlu		10/1 & 10/2 & 52/2	6.20	RC No.---, dated 22.11.2021
<b>Thutigunta (22 cases)</b>							
1.	A1	Chintalada Lakshmi Kanthamma	-	Reddy Ganapavaram	292/2	3.30	ROC No.04/2021 dated 11/2021
2.	B1	Votela Ram Mohan Reddy	Subbareddy	Reddy Ganapavaram	38/1A1B	3.08	Land-to-land Orders dated 30.10.2016
3.	B2	Chintalada Seethamma	Ramireddy	Reddy Ganapavaram	38/1A1A	6.20	
4.	B3	Kadabala Kannamma	-	Reddy Ganapavaram	1/2A	6.03	
5.	B5	Pogala Venkayamma	Subbareddy	Reddy Ganapavaram	49/2A3	3.01	
6.	B8	Kondla Rambabu	Sri Rama Murthy		50/1BC	6.20	
7.	B9	Chintalapudi Lakshmi Devi	Lachireddy		50/1B4, 49/2A2	4.14	
8.	B12	Chintala Venkata Lakshmi	veera Bhadram		241/2A, 441/1A	6.20	
9.	B13	Chintala Jogireddy	Pedda Muka Reddy		49/2A4	5.48	
10.	B14	Chintala Nagamani	Mukka Reddy		241/2B	5.47	
11.	B15	Chintala Somireddy			299/4A	6.20	
12.	B17	Chintala Tammireddy	Mangireddy		299/1A	3.05	
13.	B19	Kalli Bulli Reddy S/o Ramaswamy	-		63/1B	3.22	
14.	B20	Kalli Ayalam Reddy	Ramaswamay		134/2A, 291/4	3.21	
15.	B21	Chintala Malli Reddy	China Ramireddy		256/2B, 255/2A	4.47	
16.	B22	Chintala Malli Reddy	Chinna Ramireddy		256/2B, 255/2A	2.80	

17.	B23	Chintala Krishna Reddy	S/o Chinna Ramireddy		255/2B	2.77		
18.	B24	Chintalada Kanthamma	w/o Mangi Reddy		258/1B1, 259/1B	6.20		
19.	B40	Mulla Subbayamma	w/o Lachi Reddy		291/5	3.34		
20.	B43	Chintalada Somireddy	S/o Burreddy		258/1B2, 257/1A	4.52		
21.	B46	Kalli Soma Reddy	S/o Rama Swamy		269/2A	3.21		
22.	B48	Sri Musalamma Devasthanam	-		250/1B, 255/2C	2.76		
<b>Yerravaram (15 cases)</b>								
1.	C8	Sode Buchamma	Gangaraju	Barrikalapadu	12/2H	3.01	ROC No 1589/2015 dated 03.07.2015	
2.	D1	Kovvasu Nageswara Rao		Jeelugumilli	34/1	3.37		
3.	D3	Thama Venkateswara Rao	Singayya		89/4B2, 140/1A2L	5.53		
4.	D6	Kovvasu Venkateswara Rao	Ramaswamy		130/1C	2.68		
5.	D7	Kovvasu Ramaswamy	Buchayya		130/1D, 140/1A1A2C	4.72		
6.	D8	Madakam Seethamma	Raju		130/1E	6.02		
7.	D9	Made Siramayya	-		134/2A	6.20		
8.	D13	Kovvasu Bojji	-		140/1A2A, 193/2A1	3.78		
9.	D24	Kunjam Kannayya	-		140/1A2J	3.90		
10.	D28	Madakam Venkayamma	Siramayya		188/2A1C, 188/1C	3.78		
11.	D29	Madakam Bondudora	-		188/2A1D, 188/1D	3.78		
12.	D31	Uyikam Bojji Dora	-	Jeelugumilli	188/2C2, 189/1A5	3.51		
13.	E9	Kovvasu Gangaraju	-		140/1A1A1C	3.21		Roc No.1589/2015/ dated 28.12.2016
14.	E18	Kovvasu Venkata Giri	-		139/2, 140/1A1A1B	4.52		
15.	E28	Kovvasu Venkateswara Rao	-		140/1A1A1M, 140/1A1A1N	2.63		

## Appendix 6.6

(Paragraph No. 6.3.3.1 & Page No. 118)

**Details of PDFs shifted without payment of entitled R&R cash benefits**

(Amount in ₹)

Sl. No.	Name of the Habitation	Number of PDFs shifted	Amount
<b>Office of the Revenue Divisional Officer, Jangareddigudem</b>			
1.	Telladibbalu	6	41,66,000
2.	Mulagalagudem	9	63,74,000
3.	Gajulagondi	20	1,40,45,000
4.	Pallapuru	7	49,27,000
5.	Sarugudu	9	62,74,000
6.	Yerravaram	13	91,93,000
7.	Thutigunta	56	3,68,22,000
8.	Pydakulamamidi	25	1,75,00,000
9.	Sirivaka	25	1,64,78,000

10.	Sivagiri	22	1,48,56,000
11.	Tekuru	42	2,82,15,000
12.	Kondrukota	42	2,50,99,000
13.	Madhapuram	23	1,31,48,000
14.	Tellavaram	49	3,38,78,000
15.	Vadapalli	19	1,26,73,000
16.	Kothamamidigondi	14	99,04,000
17.	Cheeduru	23	1,60,78,000
18.	Koruturu	15	1,05,15,000
19.	Kothuru	16	1,08,51,000
20.	<b>Total</b>	<b>435</b>	<b>29,09,96,000</b>
<b>Office of the Sub Collector Rampachodavaram</b>			
21.	Madipalli (Additional)	26	1,74,86,000
22.	Kokkeragudem (Additional PDFs 1 <sup>st</sup> bill)	2	13,72,000
23.	Dandangi (2nd bill)	89	5,80,04,000
24.	Mettagudem (Additional PDFs 1 <sup>st</sup> bill)	2	13,72,000
25.	Kethanapalli (1 <sup>st</sup> Bill)	57	3,91,77,000
26.	Kothagudem (1 <sup>st</sup> Bill)	40	2,69,65,000
27.	Lingavaram (Final Bill)	1	20,58,000
28.	Mulapadu (Additional 2nd Bill)	12	81,32,000
29.	Talluru (Additional 1 <sup>st</sup> Bill)	5	34,30,000
30.	Penikelapadu (Additional 2 <sup>nd</sup> Bill)	3	20,58,000
31.	Gubbalampalem (Additional Final Bill)	1	6,86,000
32.	Seetharam (Additional)	2	13,72,000
33.	Gangampalem 1st bill (3 <sup>rd</sup> Bill)	14	96,79,000
34.	Toyyeru 1st List (8 <sup>th</sup> Bill)	29	1,90,05,000
35.	Somarlapadu Additional (1 <sup>st</sup> Bill)	6	41,16,000
36.	Agraharam Additional (1 <sup>st</sup> Bill)	6	41,16,000
37.	Agraharam 1st list	8	55,38,000
38.	Devipatnam 1st list (13 <sup>th</sup> Bill)	18	1,14,98,000
39.	Kondamodalu Additional (1 <sup>st</sup> Bill)	14	92,04,000
40.	Gangampalem (Additional 1 <sup>st</sup> Bill)	7	47,02,000
41.	Mulametta (Additional 1 <sup>st</sup> Bill)	3	20,58,000
42.	Pudipalli (Additional 1 <sup>st</sup> Bill)	49	3,15,89,000
43.	Dandangi (Additional 1 <sup>st</sup> Bill)	16	1,08,26,000
44.	Toyyeru (Additional 2 <sup>nd</sup> Bill)	12	76,82,000
45.	Damanapalli	99	6,52,39,000
46.	K. Veeravaram	16	1,04,76,000
<b>Total</b>		<b>537</b>	<b>35,78,40,000</b>
<b>Grand total</b>		<b>972</b>	<b>64,88,36,000</b>

## Appendix 6.7

### (Paragraph No. 6.3.4.1 & Page No.120) Progress in construction of R&R colonies

Sl. No.	Executing Agency	Number of colonies assigned	Number of housing Units Sanctioned	Number of Houses Completed	Number of houses completed without essential amenities			Percentage of Housing Units completed
					Toilets	Drinking water connections	Electricity meter connection	
1.	AP Education & Welfare Infrastructure Development Corporation (APEWIDC)	8	1,454	1,453	0	0	0	99.93
2.	AP State Housing Corporation Limited (APSHCL)	15	7,433	5,870	382	1,895	2,442	46.12
3.	Panchayat Raj (PR)	7	1,525	1,521	34	4	571	62.29
4.	Roads and Buildings (R&B)	10	2,093	1,379	101	0	719	31.53
5.	Tribal Welfare (TW)	9	1,433	1,284	0	0	0	89.60
<b>Total</b>		<b>49</b>	<b>13,938</b>	<b>11,507</b>	<b>517</b>	<b>1,899</b>	<b>3,732</b>	<b>55.78</b>

## Appendix 7.1

### (Paragraph No. 7.1.1 (a) (b) & Page No.128)

#### Statement showing the methodology adopted for sample selection

Sl. No.	Description
1.	The information related to rehabilitation of PDFs was obtained (September 2022) from the offices of the Project Administrator, PIP and Commissioner, R&R. Under PIP, six <sup>327</sup> implementing units are overseeing the LA and R&R activities under Phase-I. Audit selected three <sup>328</sup> out of six implementing units, as the remaining three units <sup>329</sup> did not have complete information, rehabilitation was yet to be taken up under these units and only cash component was disbursed.
A.	<p><b>Calculation for arriving sample size of 355</b></p> <p>For finite size of population 'N':</p> $S = \frac{z^2 P(1-P)}{e^2} = \frac{1.96*1.96*0.5(1-0.5)}{0.05*0.05} = \frac{0.9604}{0.0025} = 384.16$ $n = \frac{S}{1 + \left(\frac{S-1}{N}\right)} = > \frac{384.16}{1 + \left(\frac{384.16-1}{4722}\right)} = > \frac{384.16}{1.0811} = 355$ <p>where z = Confidence level coefficient for 95 per cent Confidence level = 1.96</p>

<sup>327</sup> RDO Rampachodavaram, RDO Jangareddigudem, RDO Eluru, RDO Peddapuram, Project Officer (P.O), ITDA, KR Puram, P.O ITDA Chinturu,

<sup>328</sup> RDO, Rampachodavaram, RDO, Jangareddigudem and Project Officer, ITDA, KR Puram

<sup>329</sup> Project Officer, ITDA, Chinturu: did not have complete information of PDFs, RDO, Eluru: Only cash component was disbursed (during the year 2017-18) and RDO, Peddapuram: PDFs here are in category-III (above +41.15 M), R&R activities yet to be taken up

	<p>P = Proportion of errors that is expected in the Population =50 per cent  e = Margin of Error the auditor is willing to tolerate in the population =five per cent</p> <p>N = Size of Population = 4,722 (4,740-18 =4,722). 18 PDFs opted for Cash Component and not settled in new colonies.</p> <p style="text-align: center;">n = estimated sample size.</p> <p style="text-align: center;">S = assumption for substitution in formula.</p> <p>Using the above formula and considering the population of PDFs 4,722 for category 1, the minimum sample size comes to 355.</p> <p>During the conduct of beneficiary survey, some PDFs may be unavailable/unresponsive, Hence, a sample of 426 (355 x 1.2) PDFs was selected to complete the survey of 355 PDFs.</p>
<b>B.</b>	<p><b>Calculation for arriving sample size of 370</b></p> <p>For finite size of population 'N':</p> $S = \frac{z^2 P(1-P)}{e^2} = \frac{1.96*1.96*0.5(1-0.5)}{0.05*0.05} = \frac{0.9604}{0.0025} = 384.16$ $n = \frac{S}{1 + \left(\frac{S-1}{N}\right)} = > \frac{384.16}{1 + \left(\frac{384.16-1}{9840}\right)} = > \frac{384.16}{1.038} = 370$ <p>where z = confidence level coefficient for 95 per cent confidence level = 1.96  P = Proportion of errors that is expected in the population =50 per cent  E = margin of error the auditor is willing to tolerate in the population =five per cent  N= size of population= 9,840  n = estimated sample size.</p> <p>Using the above formula and considering the population of PDFs 9,840 for category 2, the minimum sample size comes to 370.</p> <p>During the conduct of beneficiary survey, some PDFs may be unavailable/unresponsive, Hence, a sample of 444 (370 x 1.2) PDFs was selected to complete the survey of 370 PDFs.</p>

## Appendix 7.2

(Paragraph No. 7.3 & Page No. 135)

**Statement showing the infrastructure and basic amenities to be provided in R&R colonies**

Sl. No.	Infrastructure and Basic Amenities
1.	Roads within the resettled villages and an all-weather road link to the nearest pucca road, passages and easement rights for all the resettled families be adequately arranged.
2.	Proper drainage as well as sanitation plans executed before physical resettlement.
3.	Assured source of drinking water for each family as per the norms prescribed by the Government of India.
4.	Provision of drinking water for cattle.
5.	Grazing land as per proportion acceptable in the State.
6.	Fair Price Shops.
7.	Panchayat Office.
8.	Post Office.
9.	Seed-cum-Fertiliser storage facility.
10.	Irrigation facilities.
11.	Transport facility must include public transport facilities through local bus services with the nearby growth centres/urban localities.

12.	Cremation ground as per communities.
13.	Facility for sanitation including individual toilets.
14.	Household electricity connection.
15.	Anganwadi's providing child and mother supplemental nutritional services.
16.	School as per the provisions of the Right of Children to Free and Compulsory Education Act, 2009.
17.	Sub-health centre within two kilometres range.
18.	Primary Health Centre as prescribed by the Government of India.
19.	Playground for children.
20.	One community centre for every hundred families.
21.	Places of worship and chowpal/tree platform for every fifty families for community assembly and dimensions consonant with the affected area.
22.	Separate land for tribal institutions.
23.	Forest dweller families must be provided, where possible, with their forest rights.
24.	Security arrangements.
25.	Veterinary service centre.

### Appendix 7.3

(Paragraph No. 7.3 & Page No.135)

Statement showing the details of sampled R&R colonies

Sl. No.	Name of the R&R colony	Number of Houses sanctioned	Number of houses completed	Number of houses occupied by the PDFs
1.	Challavarigudem	3,905	2,325	239
2.	Kivvaka	10	10	10
3.	Krishnunipalem	1,067	1,059	995
4.	Musallakunta	356	314	314
5.	Pedabhimpalli-2	161	131	131
6.	Puchikapadu	222	222	222
7.	Reddy Ganapavaram-4	232	231	224
8.	Rowthugudem	138	138	131
9.	Saripalli	315	315	248
10.	Sarugudu (Doramamidi)	60	60	60
11.	Vankavarigudem	94	94	87
12.	Yerravaram (Jeelugumilli)	95	95	82
<b>Total</b>		<b>6,655</b>	<b>4,994</b>	<b>2,743</b>

## Appendix 7.4

(Paragraph No. 7.4.1 & Page No.148)

### Construction of Anganwadi Centres in R&R colonies

Sl. No.	Name of the R&R colony	Number of Houses	Number of Anganwadi Centre constructed	Extent of Anganwadi Centre (in Sq.ft.)
1.	Indukuru-1	306	1	502
2.	Indukuru-2	117	1	502
3.	Shivagiri	128	1	469
4.	Rachannagudem	366	4	469
5.	Doramamidi	699	4	469
6.	Swarnavarigudem	444	3	469
7.	Buttayagudem	1320	5	469
8.	Dharbhagudem	876	8	469
9.	Saripalli	315	2	469
10.	Vankavarigudem	165	1	469
11.	Yerravaram	95	1	469
12.	Sarugudu	60	1	469
13.	Kamayyapalem	57	1	469
14.	P Narayanapuram 1	140	1	469
15.	P Narayanapuram	126	1	469
16.	Reddy Ganapavaram-1	51	1	469
17.	Reddy Ganapavaram-2	140	1	469
18.	Reddy Ganapavaram-3	113	1	469
19.	Reddy Ganapavaram-4	178 + 53	1	469
20.	P. Narayanapuram	169	1	469
21.	Rowthugudem	138 + 152	1	469
22.	Mulagalampalli	245 + 686	1	469

## Glossary

Abbreviated Form	Full Form
AMV	Additional Market Value
APGENCO	Andhra Pradesh Power Generation Corporation
APPWD	Andhra Pradesh Public Works Department
APSHCL	Andhra Pradesh State Housing Corporation Limited
APSPCB	Andhra Pradesh State Pollution Control Board
BG	Bank Guarantee
CAG	Comptroller and Auditor General
CCLA	Chief Commissioner of Land Administration
CDO	Central Designs Organisation
CE	Chief Engineer
CEA	Central Electricity Authority
CFMS	Comprehensive Financial Management System
CGST	Central Goods and Services Tax
CM & CD	Cross Masonry & Cross Drainage
CMSNS	Child and Mother Supplemental Nutritional Services
CoT	Commissioner of Tenders
CPCB	Central Pollution Control Board
CPM	Critical Path Method
CSMRS	Central Soil and Material Research Station
CuM	Cubic Meter
Cusec	Cubic Feet per Second
Cumec	Cubic Meter per Second
CWC	Central Water Commission
CWPRS	Central Water and Power Research Station
DD	Draft Declaration
DDRP	Dam Design Review Panel
DoWR, RD &GR	Department of Water Resources, River Development and Ganga Rejuvenation
DPR	Detailed Project Report
D-Wall	Diaphragm Wall
EAC	Expert Appraisal Committee
EBR	Extra Budgetary Resources
ECRF	Earth-Cum-Rock Fill
ECV	Estimated Contract Value
EE	Executive Engineer
EIA	Environmental Impact Assessment
ENC	Engineer-in-Chief
EL	Elevation Level
EPC	Engineering, Procurement and Construction
FPS	Fair Price Shop
FRA	Forest Rights Act
FRL	Full Reservoir Level
GAIL	Gas Authority of India Limited
GoAP	Government of Andhra Pradesh
GoI	Government of India
GoTS	Government of Telangana State
GSI	Geological Survey of India
GWDT	Godavari Water Disputes Tribunal
HPCL	Hindustan Petroleum Corporation Limited
HP	Hydraulic Particulars

<b>I &amp; CAD</b>	Irrigation & Command Area Development
<b>IBM</b>	Internal Bench Mark
<b>ISPHW</b>	Indira Sagar Polavaram Headworks
<b>IWAI</b>	Inland Waterways Authority of India
<b>JV</b>	Joint Venture
<b>LA</b>	Land Acquisition
<b>LAO</b>	Land Acquisition Officer
<b>LIDAR</b>	Light Detection and Ranging
<b>LMC</b>	Left Main Canal
<b>LS</b>	Lumpsum
<b>MGNREGS</b>	Mahatma Gandhi National Rural Employment Guarantee Scheme
<b>MOEF</b>	Ministry of Environment and Forest
<b>MoEF &amp; CC</b>	Ministry of Environment, Forest & Climate Change
<b>MoJS</b>	Ministry of Jal Shakti
<b>MoU</b>	Memorandum of Understanding
<b>MoWR</b>	Ministry of Water Resources
<b>MW</b>	Mega Watt
<b>NABARD</b>	National Bank for Agriculture and Rural Development
<b>NCLT</b>	National Company Law Tribunal
<b>NGT</b>	National Green Tribunal
<b>NHAI</b>	National Highways Authority of India
<b>NHPC</b>	National Hydroelectric Power Corporation
<b>NITI Aayog</b>	National Institution for Transforming India Aayog
<b>OHSR</b>	Over Head Storage Reservoir
<b>PA</b>	Project Administrator
<b>PAC</b>	Public Accounts Committee
<b>PAFs</b>	Project Affected Families
<b>PDFs</b>	Project Displaced Families
<b>PERT</b>	Project Evaluation and Review Technique
<b>PCC</b>	Plain Cement Concrete
<b>PHC</b>	Public Health Centre
<b>PHEP</b>	Polavaram Hydro-Electric Project
<b>PIP</b>	Polavaram Irrigation Project
<b>PIPHW</b>	Polavaram Irrigation Project Headworks
<b>PL</b>	Price Level
<b>PLIS</b>	Pattiseema Lift Irrigation Scheme
<b>PLMC</b>	Project Level Monitoring Committee
<b>PN</b>	Preliminary Notification
<b>PO, ITDA</b>	Project Officer, Integrated Tribal Development Agency
<b>PPA</b>	Polavaram Project Authority
<b>PPB</b>	Pattadar Passbook
<b>PS to APDSS</b>	Preliminary Specification to Andhra Pradesh Detailed Standard Specifications
<b>PuLIS</b>	Purushothapatnam Lift Irrigation Scheme
<b>RA</b>	Running Account
<b>QC</b>	Quality Control
<b>R&amp;R</b>	Rehabilitation & Resettlement
<b>RBI</b>	Reserve Bank of India
<b>RCC</b>	Revised Cost Committee
<b>RCE</b>	Revised Cost Estimate
<b>RDO</b>	Revenue Divisional Officer
<b>RFCTLARR Act</b>	Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act
<b>RMC</b>	Right Main Canal

<b>RSR</b>	Revenue Survey Records
<b>SDC (LA)</b>	Special Deputy Collector (Land Acquisition)
<b>SE</b>	Superintending Engineer
<b>SES</b>	Socio Economic Survey
<b>SEIAA</b>	State Environment Impact Assessment Authority
<b>SHC</b>	Sub Health Centre
<b>SoP</b>	Standard Operating Procedure
<b>SoR</b>	Schedule of Rates
<b>SRSWOR</b>	Simple Random Sampling Without Replacement
<b>SSR</b>	Standard Schedule of Rates
<b>TAC</b>	Technical Advisory Committee
<b>TEC</b>	Technical Expert Committee/ Techno-Economic Concurrence
<b>TMC</b>	Thousand Million Cubic feet
<b>WAPCO'S</b>	Water and Power Consultancy Services
<b>WRD</b>	Water Resources Department

### Glossary of Technical Terms

Technical Term	Explanation
<b>Approach Channel</b>	Channel upstream of Spillway used for diverting water through the Spillway.
<b>Crest Level</b>	The top of the dam, not designed to flow water; also known as the top of dam. Crest of Spillway – The top of the Spillway where water flows over.
<b>Cofferdam</b>	Temporary barrier in or around a water body.
<b>Connectivities</b>	Structures that connect Dam with Canals.
<b>Diaphragm Wall</b>	A wall constructed in the sub-surface using polymer mud / cement slurry to arrest the seepage of water.
<b>ECRF Dam</b>	An artificial barrier / structure constructed both Earth and Rock used for storage of water (An artificial abutment).
<b>Elevated Level</b>	Height above sea level.
<b>Full Reservoir Level</b>	Maximum level up to which water can be stored.
<b>Gross Storage capacity</b>	Total quantity of water stored up to Full Reservoir Level including dead storage.
<b>Head Regulators</b>	Structure provided at the head of canal to regulate the supply of water and control the silt.
<b>Live Storage capacity</b>	Total quantity of water stored up to Full Reservoir Level excluding dead storage.
<b>Pilot Channel</b>	Channel used to carry water from dam portion to Spillway portion.
<b>Probable Maximum Flood</b>	The largest flood that could potentially occur at a particular location.
<b>Shotcreting</b>	Method of applying concrete with high velocity onto a vertical surface.
<b>Spillway</b>	A structure over or through which flood flows are discharged. If the flow is controlled by gates, it is considered a controlled Spillway; if the elevation of the Spillway crest is the only control, it is considered an uncontrolled Spillway.
<b>Spill Channel</b>	A channel that carries excess water passing from Spillway.
<b>Weir</b>	A low dam or a wall built across a river to raise the level of water upstream.



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