

Chapter II

Performance Audits

Panchayat Raj and Rural Development Department

2.1 National Rural Drinking Water Programme

2.1.1 Introduction

National Rural Drinking Water Programme (NRDWP)¹ is a centrally sponsored scheme aimed to provide every rural person with adequate safe water on a sustainable basis. NRDWP² provides funds for rural water supply schemes³ and promotes conjunctive⁴ use of water in convergence with other development programmes. The water supplied to persons should meet the basic requirement of water quality standards and be readily and conveniently accessible at all times and in all situations.

2.1.2 Organisational set up

State Water and Sanitation Mission (SWSM), is the nodal agency for implementation of NRDWP in the State. The Project Director manages the day to day affairs of the SWSM. Organisational hierarchy of the Mission is detailed below:

State Water and Sanitation Mission (SWSM)	<ul style="list-style-type: none"> •Nodal agency for implementation of the programme in the State. •Provides policy guidance and overall supervision to the programme.
Principial Secretary, Panchayat Raj & Rural Development (Chairman of SWSM)	<ul style="list-style-type: none"> •Monitors the implementation of the programme at State Level.
Chief Engineer (Project Director)	<ul style="list-style-type: none"> •Implements the components of coverage, water quality, sustainability and Operation& Maintenance at State Level supported by Engineering divisions at District and Division levels.
Chairperson, Zilla Parishad (Head of the District Water and Sanitation Mission (DWSM))	<ul style="list-style-type: none"> •Monitors the implementation of the programme at District Level •Receives the support from Engineering divisions of RWS&S Department and Village Water and Sanitation Committees (VWSCs).

¹ The Government of India, through the Ministry of Drinking Water and Sanitation, launched the NRDWP in April 2009

² The Ministry of Drinking Water & Sanitation is the nodal Ministry for the overall policy, planning, funding and coordination of the National Rural Drinking Water Programme (NRDWP)

³ With special focus on water-stressed and water quality affected areas, rainwater harvesting and groundwater recharge measures and for operation and maintenance

⁴ Judicious and combined use of ground water, surface water and roof water as per drinking water demand and availability, seasonally or monthly

2.1.3 Audit framework

2.1.3.1 Audit Objectives

The Performance Audit was taken up with the objective to ascertain whether:

- necessary institutional mechanism existed for effective implementation of the programme;
- the fund management was economical and effective;
- the implementation of programme was effective and efficient; and
- adequate and effective mechanism existed for monitoring and evaluation of the programme.

2.1.3.2 Audit Criteria

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

- Guidelines of NRDWP issued in 2009 and 2013; strategic plans, notifications, orders and circulars issued by the GoI;
- Studies conducted by the Planning Commission (National Institution for Transforming India (NITI) Aayog) and other agencies;
- State Government orders relating to implementation of the NRDWP;
- Physical and financial progress reported under Management Information System (MIS) available on website of the programme⁵ and
- Operation and Maintenance Manual.

2.1.3.3 Scope and Methodology of Audit

The Performance Audit, covering the period 2012-13 to 2016-17, was conducted during April-July 2017. Audit covered all the six components, *i.e.*, Coverage, Water Quality, Operation & Maintenance, Sustainability, Support and Water Quality Monitoring and Surveillance of NRDWP. Audit methodology involved scrutiny of relevant documents in SWSM, office of the ENC/RWS&S and implementing units of selected districts. Audit selected six⁶ districts through PPSWOR⁷ method. In each selected district, 20 *per cent* of Mandals were selected. Two Gram Panchayats (GPs) were selected in each Mandal. Four habitations were selected from each GP. The selection of Mandals/GPs/ Habitations was made through SRSWOR⁸ method. Survey of beneficiaries was conducted along with departmental officials by selecting a maximum of 40 beneficiaries from each GP, with 10 beneficiaries from each habitation. Details of audit sample are given in *Appendix-2.1*.

⁵ indiawater.gov.in

⁶ Anantapuramu, Chittoor, Guntur, Vizianagaram, West Godavari and YSR

⁷ Probability Proportional to Size Without Replacement (PPSWOR) with size measure as total NRDWP expenditure during review period (2012-17)

⁸ Simple Random Sampling Without Replacement

Audit objectives, sample and methodology were explained to the representatives of the State Government⁹ during Entry conference held on 05 May 2017. Audit findings were discussed in the Exit conference (03 November 2017) with the representatives of the State Government. Replies of the Government had been incorporated at appropriate places in the Report.

Audit findings

2.1.4 Institutional Mechanism

Guidelines¹⁰ stipulated institutional set up for implementation of the programme by different institutions at State, district and village levels. Responsibilities assigned to these institutions were explained in the *Appendix-2.2*. Audit observations on Institutional mechanism are detailed in **Table-2.1**:

Table-2.1

Name of the Institution	Audit Observation
State Water and Sanitation Mission (SWSM)	<p>State Water and Sanitation Mission was to be set up at State level for policy guidance and coordination with various Departments.</p> <p>SWSM headed by Principal Secretary to Government was setup in the State. SWSM was to convene meetings for review of all activities of the mission. However, no separate review meetings were conducted during 2012-17. Thus, SWSM did not review the activities as envisaged in the guidelines during the review period.</p> <p>State Government assured (December 2017) that all measures would be initiated to strengthen the implementation of the programme by conducting separate review meetings.</p>
State Level Scheme Sanctioning Committee (SLSSC)	<p>SLSSC headed by Principal Secretary to Government as Chairman at State level was to be constituted to avoid administrative bottlenecks in execution of rural water supply schemes. SLSSC headed by Principal Secretary to Government as Chairman was functioning in the State.</p> <p>SLSSC shall hold meetings at least twice a year, wherein apart from sanctioning new schemes, progress of the schemes approved earlier by the Committee should be reviewed.</p> <p>However, only one meeting was conducted every year during the period 2013-17. Department did not initiate follow up action despite various suggestions¹¹ made in the meetings.</p> <p>State Government replied (December 2017) that SLSSC</p>

⁹ Principal Secretary to Government, Panchayat Raj and Rural Water Supply & Sanitation Department

¹⁰ Para 12 of NRDWP guidelines

¹¹ Plan of action for handling all quality affected habitations to supply safe drinking water (2014-15) and conducting of water and energy audits for multi-village schemes (2015-16)

	meetings were not conducted as the spillover work load was more and new works were not taken up. Reply was not acceptable as meetings were to be conducted to monitor and evaluate the physical and financial performance of water supply schemes.
State Technical Agency (STA)	<p>SWSM was to constitute STA, headed by Chief Engineer (RWS&S) as Project Director at State level to provide technical support.</p> <p>STA was constituted (March 2012) in the composite State. However, after bifurcation (June 2014) of the State, no meetings were conducted by STA. Hence, feedback to SWSM/SLSSC on various aspects of programme and problems encountered in planning and implementation at the field level was not obtained and discussed.</p>
District Water and Sanitation Mission (DWSM)	<p>DWSM was to be constituted at district level and should function under the supervision, guidance and control of Zilla Parishad. It was to be headed by Chairperson, Zilla Parishad with the composition of all MPs/MLAs/MLCs and district level officers.</p> <p>DWSMs were constituted in all test-checked districts. However, no meetings were conducted during the review period. Thus, the implementation of the programme was not effectively reviewed.</p>
Gram Panchayat/Village Water and Sanitation Committee (GPWSC/VWSC)	<p>VWSCs comprising members of Panchayat were to be set up at village level to give greater focus on water and sanitation issues and to ensure active participation of villagers. VWSCs were constituted in all the villages of the test-checked districts. However, no meetings were conducted during the review period. Thus, VWSCs could not ensure active community participation in planning, designing and implementing the drinking water and sanitation activities in villages.</p>

2.1.5 Planning

2.1.5.1 Water Security Plans

- i) Guidelines provide for preparation of Village Water Security Plans (VWSPs)¹² to ensure active participation of the villagers in planning, implementing and O&M of the rural water supply schemes. The VWSPs were to be consolidated at district level so as to form a basis for formulation of District Water Security Plans (DWSPs).

¹² VWSPs have to include the demographic, physical features, water sources, available drinking water infrastructure and other details of the village

Audit noticed that VWSPs/DWSPs were not prepared in any of the test-checked districts during 2012-17. Reasons for non-preparation of the VWSPs were not available.

Thus, in the absence of grass root plans, assessment of availability and requirement of water sources as per the needs of people, were not considered.

- ii) Guidelines stipulate preparation of a five year Comprehensive Water Security Action Plan (CWSAP) at State level to achieve the goal of drinking water security to every rural household. Further, based on the National Policy Framework, State should prepare State specific sector policy framework¹³.

Audit noticed that the Department had neither prepared a five year CWSAP nor State specific sector policy framework. Reasons for non-preparation of the CWSAP and State Policy Framework were not available.

Thus, the Department failed to plan for optimum utilisation of drinking water in the absence of water security plans.

2.1.5.2 Annual Action Plans

As per guidelines¹⁴ the State should prepare every year an Annual Action Plan (AAP) in a participatory manner after carrying out detailed SWOT¹⁵ Analysis. It should also include community-wise population (SC/ST, other backward classes, minority sections) to be benefited. Coverage of schools and anganwadis with water supply should also be planned. Plan for ensuring clean environment around drinking water sources including hand pumps, O&M and involvement of the PRIs¹⁶ should be indicated.

Scrutiny of AAPs revealed the following deficiencies:

- AAPs were prepared unilaterally by RWS&S Department based on spillover commitment of schemes received from the districts and new sanctions (if any) without participation of people. No detailed SWOT analysis was carried out. This indicated that the Department prepared the AAPs without assessing the needs, resources and challenges of rural people.
- AAPs did not specify community-wise population to be benefited duly indicating separately the coverage of SC/ST, other backward classes and minority population.
- AAPs also did not plan for coverage of schools and anganwadis to supply water.
- AAPs did not indicate plan for ensuring clean environment around drinking water sources including hand pumps, O&M and involvement of the PRIs.

State Government replied (December 2017) that after bifurcation of the State, funds were reduced drastically and hence, no new works were taken up. Further, while

¹³ To provide every rural person with adequate safe water for drinking, cooking and other domestic basic needs on a sustainable basis

¹⁴ Para No. 14 and Annexure VII of NRDWP guidelines

¹⁵ Strengths, Weaknesses, Opportunities and Threats

¹⁶ Panchayat Raj Institutions

giving new sanctions, preference was being given to SC, ST and other community areas in the order of priority.

The reply was not acceptable as the Department had prepared AAPs without indicating the details of these segments of population.

As a result, these segments of population were deprived of the benefit of safe drinking water.

2.1.6 Fund Management

The allocation criteria as prescribed in earlier and revised guidelines of NRDWP for weightage calculation, component-wise allocation and fund sharing pattern (pertaining to period 2012-17) are shown in **Appendix-2.3**. At the beginning of every financial year, GoI communicated to the States, allocation of funds under different components of NRDWP. The States/UTs are required to indicate the component under which they would like to avail the fund. Once allocation is made, the Programme fund¹⁷ and Support fund¹⁸ would be released in two instalments taking into account available excess opening (unspent) balance.

GoI released NRDWP grants directly to SWSM till March 2014. From April 2014 onwards, GoI released NRDWP grants to State Government, who in turn along with State share, released the same to SWSM. Funds released and expenditure incurred towards implementation of NRDWP in the State are given in **Table-2.2**:

Table-2.2

(₹ in crore)

Year	Opening Balance	Releases		Interest	Expenditure		Closing Balance
		Central	State		Central	State	
2012-13	510.65	488.26	150.69	37.25	711.16	150.69	325.00
2013-14	325.00	631.52	136.92	26.18	827.44	136.92	155.26
2014-15	155.26	379.10	110.41	5.47	394.54	168.67	87.03
2015-16	87.03	170.05	223.59	2.40	204.20	223.59	55.28
2016-17	55.28	203.89	144.55	0.00	148.60	144.55	110.57

Source: Information furnished by the RWS&S Department.

Audit observed that the Department did not utilise the funds in the year it was released and huge balance was available at the end of each year. An amount of ₹110.57 crore remained unspent at the end of March 2017. This was due to delay in completion of schemes and not starting of other schemes.

State Government replied (December 2017) that due to release of second instalment of GoI share in the month of March, balance was available which was adjusted in the next financial year. The contention of the State Government was not acceptable as huge

¹⁷ Programme fund consisting of four components i.e., Coverage, Water Quality, Sustainability and Operation and Maintenance of NRDWP

¹⁸ Support fund consisting of Support activities include *five per cent* of NRDWP expenditure on Water and Sanitation Support Organisation (WSSO), District Water and Sanitation Mission (DWSM), Block Resource Centres (BRCs), Information, Education and Communication (IEC), Human Resource Development (HRD), Management Information System (MIS) and computerisation, Research & Development (R&D) and others

unspent balance was available at the end of each year. Such balance was more than the fund released as second instalment in March (2012-13: ₹ 131.83 crore, 2013-14: ₹ 92.70 crore, 2014-15: ₹74.87 core, 2015-16: ₹14.37 crore and 2016-17: ₹4.83 crore). Further, GoI imposed a cut of ₹3.70 crore as a penalty in 2014-15 due to excess opening balance. Thus, Government had not fully utilised the funds available with it in any year during the review period.

2.1.6.1 Deprivation of GoI share

GoI had imposed (2012-17) a cut of ₹48.96 crore (*Appendix-2.4*) from its share to the programme as penalty. This was due to State incurring excess expenditure on O&M in the previous year, excess opening balance and short release of its share. Thus, substantial amount of central fund was foregone as the SWSM did not adhere to the guidelines.

2.1.6.2 Short release of matching share by State Government

State Government had short released (2014-17) an amount of ₹178.87¹⁹ crore towards its matching share. State Government did not furnish specific reasons.

Short release of State matching share *would delay commissioning of the schemes* besides resulting in a cut in GoI share to the Programme as per guidelines.

2.1.6.3 Delayed release of funds by the State Government to SWSM

State Government shall transfer to SWSM²⁰, the principal amount along with penal interest²¹ for the period of delay in transfer of funds beyond stipulated period of 15 days. GoI may stop further releases to the State if funds are not transferred along with penal interest.

State Government transferred (2015-17) to SWSM, an amount of ₹655.27 crore with a delay ranging from 12 days to 249 days (*Appendix-2.5*). However, no interest amount was released. Audit assessed an amount of ₹8.47 crore as interest for delayed transfer of funds to the end of July 2017.

State Government assured (December 2017) that sufficient care would be taken to reduce delays and other consequences.

2.1.6.4 Non-transfer of GoI share to SWSM

GoI sanctioned (March 2017) an amount of ₹26.62 crore to the State Government for the year 2016-17. However, the State Government had not released GoI share along with its matching share to SWSM as of May 2017.

¹⁹ 2014-15: ₹144.26 crore, 2015-16: ₹16.94 crore and 2016-17: ₹17.67 crore

²⁰ Implementing agency

²¹ At the rate of 12 *per cent* per annum

2.1.6.5 Interest income

- Audit observed that in the test-checked districts DWSMs earned interest of ₹67.22 lakh²² on the funds. DWSMs, however, did not remit the same to the implementing agency. Thus, the interest earned in the districts was not brought into the annual accounts of SWSM. It was also not reflected in the Utilisation Certificates (UCs) furnished to GoI.

State Government replied (December 2017) that interest amount would be taken into account and utilised under respective components.

- GoI instructed (November 2016) to refund the unspent balances released²³ during 2008-10 under Jalmani programme. However, an amount of ₹53.66 lakh²⁴ lying unutilised (May 2017) under Jalmani programme in the test-checked districts was not surrendered to GoI.

State Government replied (December 2017) that the concerned Executive Engineers were requested to remit the amounts to SWSM.

- RWS&S division, Kovvuru (West Godavari) had paid (November 2011) ₹2.70 crore to Revenue Department for land acquisition²⁵. Subsequently, the division withdrew its land acquisition proposal due to delay in acquisition process. The Revenue Department refunded (September 2014) the amount. The division had deposited this amount in current account in violation of guidelines²⁶. As such, interest of ₹16.29 lakh (at the rate of four *per cent* per annum) as of July 2017 was lost.

State Government replied (December 2017) that the amount was kept in current account and was later withdrawn and kept in savings bank account. The reply was not acceptable as the fact remained that there was loss of interest during the period when the amount was kept in current account.

Thus, the interest earned by DWSMs was not brought into programme fund account. This indicated that the financial statements of SWSM did not reflect the true and fair picture of the annual accounts of the programme.

2.1.6.6 Inadmissible expenditure

As per the Manual²⁷, State Government shall arrange/purchase the required land from its own resources, if Panchayat land is not available. Audit noticed that, an amount

²² Anantapuramu: ₹2.86 lakh, Chittoor: ₹10.26 lakh, Eluru: ₹0.55 lakh, Kovvuru: ₹38 lakh and Vizianagaram: ₹15.55 lakh

²³ For installation of Standalone Water Purification System in the schools

²⁴ Anantapuramu: ₹27.61 lakh, Chittoor: ₹8.30 lakh, Guntur: ₹4.50 lakh, West Godavari: ₹3.48 lakh and YSR: ₹9.77 lakh

²⁵ For the work of providing sustainability for habitations affected by saline ingress in coastal habitations of Bhimavaram

²⁶ As per Para 16.1 of NRDWP guidelines, funds shall be kept in savings account only

²⁷ Manual of Preparation of Detailed Project Report (DPR) for Rural Water Supply Schemes, Panchayat has to arrange the land, free of cost, required for construction of head works and other structures like overhead tanks, ground level reservoirs etc. In case, panchayat land is not available, the land required shall be arranged/purchased by the State Government from its own resources

₹2.20 crore, was irregularly paid (August 2013) to Revenue Department for land acquisition²⁸ from the funds of NRDWP.

State Government replied (December 2017) that the amount was in Government account (kept as deposit with Revenue Department). Reply was not acceptable as scheme funds should not be utilised for the purpose of acquisition of land.

2.1.6.7 SWSM accounts

On verification of the financial statements available in the Audited Accounts of Chartered Accountant (CA) with Integrated Management Information System (IMIS) data, significant variations were noticed in respect of opening balance, releases/receipts, expenditure/payments and closing balance. Details of variation in receipts and expenditure are given in *Appendix-2.6 (a) & (b)*. Audit observed that there was no proper reconciliation and validation of data fed into IMIS. This resulted in difference in the expenditure figures as per Audited statements and IMIS data.

State Government accepted (December 2017) audit observation and stated that the figures mentioned under IMIS were not correct and the same was brought to the notice of GoI for reconciliation.

Thus, the integrity of data uploaded in IMIS was doubtful.

2.1.6.8 Other irregularities

- i. Subsequent to redistribution of funds due to bifurcation of the State²⁹, SWSM had paid (July 2014) an amount of ₹8.51 lakh to a private agency for display of bill boards in Mahabubnagar district of Telangana State, which was irregular.

State Government replied (December 2017) that Government of Telangana would be addressed to return the amount.

- ii. SWSM was not maintaining the cash book³⁰ for the funds received from GoI/State Government. As such, audit could not vouchsafe the correctness of releases, expenditure and internal diversion of funds.

2.1.7 Implementation

NRDWP is being implemented in the State through its six components, *viz.*, Coverage, Water Quality, Operation & Maintenance, Sustainability, Support and Water Quality Monitoring and Surveillance.

²⁸ For work 'Augmentation of Comprehensive Protective Water Supply (CPWS) scheme to Akumarru and 19 other habitations' in Krishna district

²⁹ After bifurcation of State of Andhra Pradesh, the funds (available as on 18 July 2014) were distributed between States of Residuary Andhra Pradesh and Telangana

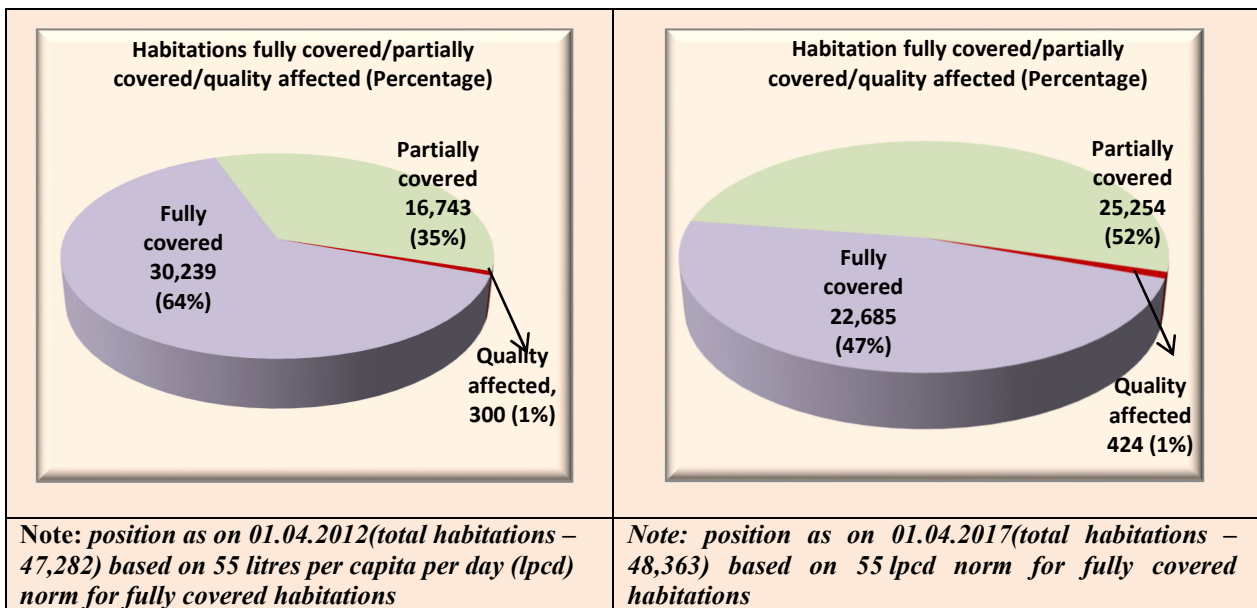
³⁰ As per Andhra Pradesh Finance Code and General Financial Rules of GoI

2.1.7.1 Coverage

To provide safe and adequate drinking water supply to un-served, partially served and slipped back habitations³¹, 47 per cent³² of the annual NRDWP fund was allocated. In the 12th five-year plan period (2012-17), under NRDWP, specific emphasis was given on piped water supply in rural habitations. States were directed to plan for coverage of habitations with piped water supply or through stand posts³³ or household connections. Audit noticed the following observations in coverage of habitations:

Status of coverage of habitations categorised as Fully Covered³⁴, Partially Covered³⁵ and Quality Affected³⁶ is given in **Chart-2.1** below:

Chart-2.1: Status of coverage of habitations



Source: IMIS data

i) As on 1 April 2017, 25,254 out of 48,363 habitations were partially covered and 424 habitations were Quality Affected. Fully covered habitations came down from 64 per cent in 2012 to 47 per cent in 2017. The partially covered habitations increased from 35 per cent to 52 per cent. The quality affected habitations increased by 41 per cent.

State Government accepted (December 2017) the audit observation and stated that the increase in quality affected habitations was due to depletion of ground water.

³¹ A habitation having status “Fully Covered” at one point of time which is “Partially Covered” or “Quality Affected” presently, is called a Slipped back habitation

³² 45 per cent in the pre-revised guidelines

³³ Distributes water from one or more taps to many users

³⁴ Fully Covered-those habitations in which the average supply of drinking water is equal to or more than 55 lpcd, are called “fully covered” habitations

³⁵ Partially Covered-those habitations in which the average supply of drinking water is less than 55 lpcd and equal to or more than 10 lpcd, are called “partially covered” habitations

³⁶ Quality Affected Habitations-these are the habitations where water samples tested in laboratories have indicated levels of chemical contamination (limited to Arsenic, Fluoride, Iron, Nitrate and Salinity) higher than the permissible limits set by the Bureau of Indian Standards (BIS)

ii) Comparison of coverage of habitations in test-checked districts is given below:

Table-2.3

Name of the district	Habitations as on 1 st April 2012				Habitations as on 1 st April 2017			
	Total	Fully covered	Partially covered	Quality affected	Total	Fully covered	Partially covered	Quality affected
Anantapuramu	3339	2829	510	0	3312	1970	1226	116
Chittoor	10970	8826	2144	0	11189	6154	5020	15
Guntur	1698	1091	555	52	1739	586	1136	17
Vizianagaram	2923	2038	874	11	2949	1689	1260	0
West Godavari	2182	1655	525	2	2412	1358	1054	0
YSR	4453	1946	2507	0	4451	2426	2025	0
Total	25565	18385	7115	65	26052	14183	11721	148

Source: IMIS data

In the test-checked districts fully covered habitations came down from 72 per cent in 2012 to 54 per cent in 2017. The partially covered habitations increased from 28 per cent to 45 per cent. The quality affected habitations were eliminated in two test-checked districts (Vizianagaram and West Godavari) only. However, quality affected habitations were identified in Anantapuramu and Chittoor districts.

This indicated that State Government did not ensure supply of adequate quantity of water (55 lpcd) which resulted in increase in water deficient habitations. State Government did not prioritize the quality affected habitations³⁷, which resulted in the increase in number of such habitations.

iii) Scrutiny of records of Engineer-in-Chief revealed that 292 Multi Village Schemes (MVSs) were sanctioned during 2006-16 to cover 6,030 habitations. Audit observed that as of April 2017, out of 2,000 habitations, only 1,882 habitations were covered (120 completed schemes). Completed schemes did not cover 118 habitations. Ninety three schemes to cover 2,878 habitations were under progress. Further, 1,152 habitations could not be covered as the proposed schemes (79) were not started. GoI took a decision (June 2015) to release funds for the ongoing schemes only and not for new schemes. As such, the habitations under non-started schemes remained uncovered.

Thus, 26,948³⁸ habitations were deprived of the benefit of adequate and safe drinking water. In the test-checked districts, 11,869³⁹ habitations were yet to be provided with adequate and safe drinking water.

iv) NRDWP objectives require that all Government schools and anganwadis should have access to safe drinking water. Water purification systems should be provided to all schools and anganwadis where drinking water sources were affected by bacteriological or excess iron contamination.

³⁷ As per para 14 (a) of guidelines, quality affected habitations should be prioritized while preparing AAPs

³⁸ 25,254 partially covered habitations, 1,152 not yet started schemes, 118 out of completed schemes and 424 quality affected habitations

³⁹ 11,721 partially covered + 148 quality affected

As on 1 April 2017, out of 45,382 schools and 7,083 anganwadis, drinking water was provided to 42,269 schools (93 per cent) and 4,224 anganwadis (60 per cent) in the State. In the habitations surveyed in test-checked districts, drinking water was not provided to 21⁴⁰ out of 114⁴¹ schools. Similarly, drinking water was not provided to 29⁴² out of 88⁴³ anganwadis. Thus, adequate coverage was not given. State Government replied (December 2017) that concerned Departments were looking after the provision of drinking water supply in schools and anganwadis. The reply was not acceptable as the guidelines stipulated that the SWSM had to compile the data of rural schools and anganwadis in the State and provide drinking water facilities by the end of 2012-13.

- v) State had to earmark NRDWP funds to accelerate the assured availability of potable drinking water on a sustainable basis in SC and ST dominant habitations. At least 25 per cent of the NRDWP funds⁴⁴ for SC dominated habitations⁴⁵ and 10 per cent for the ST dominated habitations were to be allocated⁴⁶. Further, priority was to be given to cover SC, ST dominated habitations while preparing⁴⁷ AAPs.

However, general population (39 per cent), SC population (37 per cent) and ST population (41 per cent) in the State were yet to be provided with adequate drinking water (40 lpcd or more) (**Appendix-2.7**). In the test-checked districts, 18 per cent⁴⁸ of SC/ST habitations⁴⁹ were yet to be provided with potable drinking water.

Thus, these segments of population were not prioritised, as envisaged in the guidelines.

Targets and Achievements

Year wise target and coverage of habitations during 2012-17 are given below:

Table-2.4

Year	Partially covered habitations				Fully covered habitations			
	As on 1 st April	Target	Achievement	Percentage	As on 1 st April	Target	Achievement	Percentage
2012-13	16743	2510	1209	48	29239	190	1279	673
2013-14	32648	2786	3147	113	12687	325	386	119
2014-15	33566	2411	2383	99	12277	134	218	163
2015-16	30320	995	1727	174	17293	27	143	530
2016-17	24744	750	951	127	23028	123	369	300

Source: IMIS Data

⁴⁰ Chittoor-2, Guntur-10 and YSR-9

⁴¹ Chittoor-7, Guntur-10, Vizianagaram – 13, West Godavari-23 and YSR-61

⁴² Anantapuramu-1, Chittoor-3, Guntur-12 and YSR-13

⁴³ Anantapuramu-5, Chittoor-8, Guntur-12, Vizianagaram-20, West Godavari-23 and YSR-20

⁴⁴ Para 9.10 of NRDWP guidelines

⁴⁵ Habitations in which more than 40 per cent of the population belongs to SC

⁴⁶ Habitations in which more than 40 per cent of the population belongs to ST

⁴⁷ Para 14 of NRDWP guidelines

⁴⁸ 967 out of 5,442 habitations

⁴⁹ Chittoor: 370 out of 3,342 habitations, Guntur: 209 out of 323 habitations, Vizianagaram: 277 out of 1,397 habitations and West Godavari: 111 out of 380 habitations

- i) From the above table, steep decline in targets during 2012-17 was noticed. Hence, due to fixing of abnormally low targets, achievement was more than the targets. However, out of 48,363 habitations, 25,678⁵⁰ habitations (53 per cent) were left uncovered with adequate drinking water as of April 2017.

Thus, the State Government reduced the targets to abnormally low levels to show higher achievement.

- ii) The AAPs proposed (2012-17)⁵¹ to cover 15,668 habitations. Out of this, 15,999 habitations were covered (102 per cent). However, the target fixed for coverage was shown in IMIS as 13,935 and achievement as 13,119 (94 per cent).

2.1.7.2 Water quality

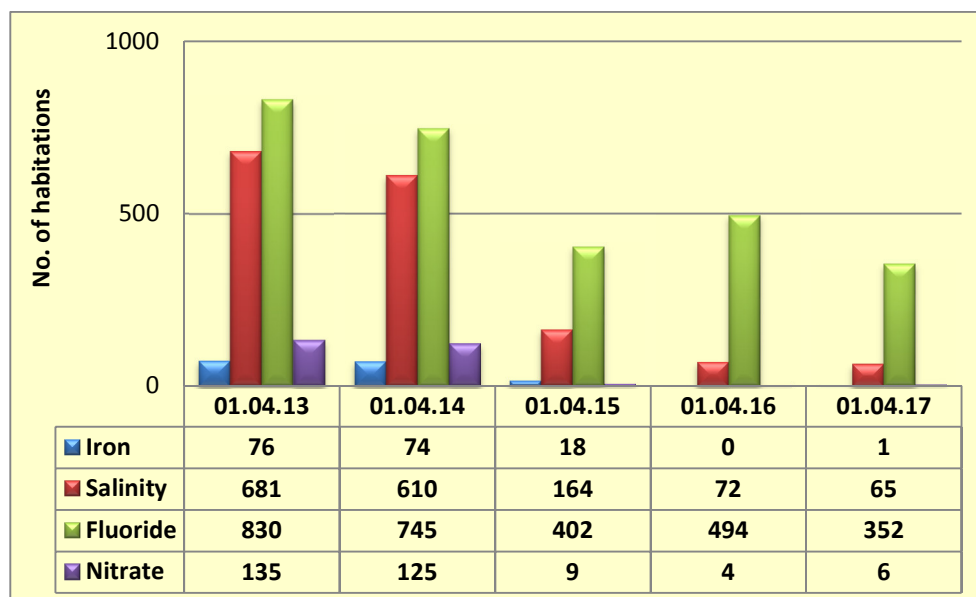
Twenty per cent of annual NRDWP funds were allocated to provide potable drinking water to quality affected habitations. Guidelines provided flexibility under different components of NRDWP as there was wide variation among States in the number of habitations having water quality problems and left over partially covered habitations. States could choose the components viz., Coverage and Water Quality, under which, they would like the funding to be provided.

Target and achievements

As per the guidelines, the schemes should be taken up to cover the quality affected habitations in the order of priority. Habitations with the highest extent of arsenic should be covered first, followed by high extent of fluoride and other contaminants.

Details of Water Quality Affected habitations during 2012-17 are given in **Chart-2.2** below:

Chart-2.2: Water Quality Affected Habitations



Source: Information furnished by the RWS&S Department

⁵⁰ Partially covered: 25,254 and Quality affected: 424

⁵¹ For the period 2012-14, the figures are of Composite State of Andhra Pradesh

The above chart indicates that priority was not given to cover fluoride affected habitations during the review period. Thus, 352 fluoride affected habitations were not covered as on 1st April 2017. The fluoride affected habitations were highly concentrated in SPSR Nellore (117) and Anantapuramu (116) districts. Review of IMIS data revealed that targets were not fixed to cover these habitations as of August 2017.

State Government replied (December 2017) that all efforts were being put in to cover all the fluoride affected habitations.

The details of target and coverage of quality affected habitations are given below:

Table-2.5

Year	No. of Quality Affected habitations	Target as per AAP	Target finally fixed (as per IMIS data)	Covered	Percentage of coverage with reference to target as per AAP	Percentage of coverage with reference to target as per IMIS data
2012-13*	396	384	177	179	47	101
2013-14*	3549	226	383	375	166	98
2014-15	1554	597	218	218	37	100
2015-16	593	333	32	35	11	109
2016-17	570	367	7	53	14	757
Total	6,662	1,907	817	860	45	105

Source: Information furnished by the RWS&S Department and IMIS data

* Figures are for erstwhile composite State of Andhra Pradesh

The targets as proposed in AAPs (1,907 habitations) during 2012-17 were reduced to 817 habitations (as per IMIS). Downward revision of targets resulted in excessive achievement (860 habitations).

2.1.7.3 Status of schemes

Water supply schemes were classified into two broad categories – Single Village Schemes (SVS) and Multi Village Schemes (MVS). SVS serves one village whereas MVS serves a group of habitations/villages. The status of schemes executed as of May 2017 is discussed below:

In the State, 292 MVS were sanctioned with an estimated cost of ₹2,250.19 crore during 2006-16. Out of this, 120 schemes were completed by incurring expenditure of ₹479.63 crore. Works of 93 schemes were under progress and an expenditure of ₹621.93 crore was incurred as on March 2017. Further, 79 schemes with an estimated cost of ₹433.47 crore were not yet started, even though preliminary works such as investigation, survey, preparation of DPRs were completed by incurring an amount of ₹1.08 crore.

Similarly, 5,588 SVS were sanctioned in the State with an estimated cost of ₹816.30 crore during 2013-17. Out of this, 3,618 schemes (65 per cent) were completed with an expenditure of ₹183.38 crore. Further, 132 schemes (2 per cent) with an estimated cost of ₹83.54 crore were yet to be completed, though expenditure of ₹8.18 crore was incurred on these works to the end of 2016-17. As of May 2017, 1,779 works (32 per cent) sanctioned (2013-14) with an estimated cost of ₹21.55 crore were not yet started.

The Department stated (May 2017) that the works which were not started as of August 2014, were not taken up as per instructions of the Finance Department.

Thus, 2,931 habitations⁵² were deprived of the intended benefit of safe drinking water due to not starting of works. Further, the State Government could not avail proposed GoI contribution of ₹455.02 crore⁵³ on these projects as the Department failed to start the works even though administrative sanction was received.

2.1.7.4 Jalmani

The programme was launched in 2008-09 for installation of Stand-alone Water Purification Systems (SWPS) in schools to provide children studying in water quality affected rural schools with safe and clean drinking water.

In the test-checked districts, 939⁵⁴ out of 942⁵⁵ SWPS sanctioned were installed at a cost of ₹1.88 crore⁵⁶. However, only 873⁵⁷ units were commissioned. Reasons for non-commissioning of 66⁵⁸ units were not available in the records. Out of commissioned units, 241⁵⁹ units (27.60 per cent) were not functioning as of May 2017, which resulted in unfruitful expenditure of ₹48.20 lakh. As per AAP for 2015-16, 3,649 SWPS were targeted at a cost of ₹7.30 crore under Jalmani Phase-II. However, this work was not taken up as of May 2017.

Joint physical verification in YSR district revealed that SWPS, though stated to be installed, were not installed in three schools⁶⁰ out of six schools.

Thus, the objective of providing safe drinking water to the quality affected rural schools was not fully achieved.

⁵² MVS: 1,152 and SVS: 1,779

⁵³ ₹ 433.47 crore for 79 MVS projects and ₹ 21.55 crore for 1,779 SVS works

⁵⁴ Anantapuramu-157, Chittoor-157, Guntur-157, Vizianagaram-157, West Godavari-157 and YSR-154

⁵⁵ 157 units for each district

⁵⁶ ₹ 20,000 X 939 SWPS

⁵⁷ Anantapuramu-125, Chittoor-157, Guntur-123, Vizianagaram-157, West Godavari-157 and YSR-154

⁵⁸ Anantapuramu-32 and Guntur-34

⁵⁹ Anantapuramu-57, Guntur-31, Vizianagaram-150 and YSR-3

⁶⁰ Zilla Parishad High School (Urdu Medium), Vempally; Zilla Parishad High School, Ramanappa Satram, Pulivendula and Zilla Parishad High School, Ankalammapet, Pulivendula

2.1.7.5 Operation and Maintenance

The States have to adopt improved Operation & Maintenance (O&M) methods⁶¹ for better working of schemes and to control leakages. Improved O&M would ensure sustainability of functioning of rural water supply programme. A maximum of 15 per cent⁶² of the annual NRDWP funds are allocated to meet expenditure on running, repair and replacement costs of drinking water supply projects. Details of receipts and expenditure towards Operation and Maintenance are given below:

Table-2.6

(₹ in crore)

Financial Year	Opening Balance	Receipts		Total Receipts	Expenditure during the year		Total Expenditure	Closing Balance	Percentage of utilisation
		Central	State		Central	State			
1	2	3	4	5	6	7	8	9	10
2012-13	37.24	67.90	45.00	150.15	11.62	45.00	56.62	93.52	38
2013-14	93.52	86.05	37.06	216.63	115.20	37.06	152.26	64.37	70
2014-15	64.37	46.77	23.35	134.49	36.63	23.35	59.98	74.51	58
2015-16	74.51	19.87	36.60	130.98	15.31	36.60	51.91	79.07	40
2016-17	79.07	21.49	16.94	117.49	15.45	16.94	32.38	85.12	28

Source: Information furnished by the RWS&S Department

Audit observed that Department did not fully utilise the funds in any of the years. Percentage of utilisation ranged from 28 per cent (2016-17) to 70 per cent (2013-14) during the review period.

a) Operation and Maintenance Plan

Guidelines provide⁶³ that States may use O&M Manual prepared by the GoI or prepare a State specific O&M Manual to guide systematic operation and maintenance. However, no such O&M Plan was prepared in the State. Training for capacity building of O&M personnel was not organised. Plan for availability of spare parts was not prepared. Plan for conservative use of water, i.e., water auditing/leakage control through metering, improved O&M practices and awareness intervention was also not prepared.

Thus, due to lack of attention to the important aspects of O&M, dysfunction or deterioration of the useful life of the systems could not be ruled out.

b) Issues related to Operation and Maintenance

Guidelines envisage that the State should transfer the program to the PRIs particularly to the Gram Panchayats for management within the village. This would enable the community to plan, implement and manage their own water supply systems. States should also devolve the required O&M fund to the PRIs for O&M of schemes managed by them. Audit noticed that:

⁶¹ Preparation of O&M plan, development of individual plan for O&M, capacity building plans for O&M personnel, plan providing for spares and tools, plan for water audit and leakage control and plan for efficient use of water etc.

⁶² 10 per cent in the pre-revised guidelines

⁶³ Para 9.7 of NRDWP guidelines

- i) As envisaged in strategic plan (2011-22), water metering for both bulk and individual households was not provided in all piped water supply schemes to reduce unaccounted water. State Government accepted (December 2017) audit observation and stated that respective Gram Panchayats were advised to collect tariffs from the users.
- ii) Water audits, energy audits and measurement of unaccounted water and non-revenue water were not introduced for bulk distribution of piped water supplies. State Government accepted (December 2017) audit observation and stated that water audits were being done as part of watershed management by Districts Water Management Agency (DWMAs) at district level. The reply was not acceptable, as RWS&S Department being the implementing agency, did not conduct the said audits.

Thus, in the absence of water metering and water & energy audits, the Department could not assess and avoid wastage/leakage of water.
- iii) Out of 219 schemes commissioned in the test-checked districts covering 5,125 habitations, water was not being supplied to 400 habitations (8 *per cent*). In 1,250 habitations (24 *per cent*) water was being supplied on alternate days instead of supplying daily (**Appendix-2.8**). This was due to damage of pipelines, frequent repairs to motors and valves. Thus, due to improper O&M after commissioning of schemes, benefited habitations were deprived of the safe drinking water.
- iv) As per guidelines⁶⁴, SWSM did not adopt the tariff structure for rural water supply in the State to make the schemes sustainable. GoI reiterated the regulation of pricing in the meeting held in March 2017 for approval of AAP 2017-18.

2.1.7.6 Sustainability

A maximum of 10⁶⁵ *per cent* of the annual NRDWP fund is allocated to encourage States to achieve drinking water security at local level through sustainability of sources and systems⁶⁶. States which propose to utilise less than 10 *per cent* against the Sustainability component have to furnish justification to the GoI for decision in the matter. Details of funds allocated and utilised under sustainability component are given in **Table-2.7**:

⁶⁴ SWSM should decide the tariff structure of rural water supply, taking into consideration the differential connection charges and tariff structure for house connection and supply through hand pumps/street stand posts and also lower/affordable tariff for SC, ST, OBC and BPL households

⁶⁵ 20 *per cent* in the pre-revised guidelines

⁶⁶ Adopting conjunctive use of surface water, rain water and ground water and construction of water recharging structures with major emphasis on water quality affected areas, overexploited, critical and semi-critical areas as specified by Central Ground Water Board, and any other area that the State Government has identified as water stressed area

Table-2.7

(₹ in crore)

Year	Total funds received from GoI	Funds to be allocated	Opening Balance	Funds allocated	Total fund	Shortfall (Percentage of shortfall)	Funds utilisation (Percentage of utilisation)	Closing Balance
2012-13	488.26	48.83	183.82	45.27	229.09	3.55 (7.29)	0.67 (0.29)	228.43
2013-14	631.52	63.15	228.43	57.37	285.80	5.78 (9.15)	0.59 (0.20)	285.20
2014-15	379.10	37.91	285.20	31.18	316.38	6.73 (17.75)	4.11 (1.30)	312.27
2015-16	170.04	17.00	312.27	13.24	325.51	3.80 (22.30)	2.57 (0.79)	322.95
2016-17	203.89	20.39	322.95	14.33	337.28	6.06 (29.72)	9.04 (2.68)	328.23
Total	1872.81	187.28		161.40		25.92	16.98	

Source: Information furnished by the RWS&S Department

i) From the above table, it was evident that the allocation of fund was less than 10 per cent. During 2012-17, an amount of ₹161.40 crore was allocated as against ₹187.28 crore under sustainability component. Shortfall in allocation of funds ranged from 7 per cent to 30 per cent. Further, utilisation of funds was much lower ranging from 0.20 per cent to 2.68 per cent only. Justification for non-utilisation of prescribed percentage of fund was not furnished to GoI.

State Government replied (December 2017) that GoI was allowing utilisation of sustainability funds for coverage, quality and O&M components. It was further stated that sustainability related works were being taken up under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) with NRDWP funds. The reply was not acceptable as there was no provision in the guidelines to divert the funds of sustainability component.

ii) An amount of ₹328.23 crore was lying idle to the end of March 2017, as fund under sustainability component was not effectively utilized. Thus, the State could not achieve the drinking water security at local level through sustainability of sources and systems.

a) Preparation and implementation of sustainability plan

i) The guidelines prescribed an alternate sub-district, district or State level water supply system in the form of a grid, supplying metered bulk water to GPs/villages. This grid could be in the form of major pipelines, canals or any other appropriate system connecting major bodies/sources. However, water grid was not formed though it was proposed by State Government in AAP 2015-16 with an estimated cost of ₹50,000 crore. In the absence of water grid, the Department could not ensure drinking water security in the State under all circumstances and at all times.

State Government replied (December 2017) that a decision was taken to form a grid to provide water supply to all households with at least 70 lpcd through perennial sources.

- ii) The guidelines stipulated a shift from over-dependence on groundwater or any one source of drinking water to the conjunctive use from several sources⁶⁷. However, it was noticed that, no conjunctive use of water was part of annual/five year plans at the State/District/GP levels. As of March 2017, 2,60,856 schemes⁶⁸ and 4,452 schemes were functioning based on ground water and surface water as source respectively.

Thus, schemes were functioning with over-dependence on groundwater. Over-dependence on groundwater would result in exploitation of underground water resources and consequential decline in ground water table.

State Government accepted (December 2017) audit observation and stated that it had planned to cover most of the villages with MVS schemes wherever sustainable surface sources are available.

- iii) Programme guidelines suggested a list of works⁶⁹ to improve rural drinking water supply to be taken up in convergence with other programmes⁷⁰. However, works under suggestive list under sustainability component of NRDWP or in convergence with other related programmes were not taken up in the State as these works were not proposed in the AAPs. As a result, the number of habitations that were fully covered had come down from 30,239 (2012) to 22,685 (2017). Thus, due to non-convergence of NRDWP with other related programmes, the schemes were not able to serve their purpose⁷¹.

b) Ground water table status

About 80 per cent of the drinking water needs are met through ground water in the State. Rainfall is the source of recharge to groundwater. During the last decade this source had become erratic and sometimes very low, affecting recharging of groundwater. Thus, the strain on groundwater aquifers is increasing day by day in the State.

- i) The details of seasonal and annual rainfall are given in **Appendix-2.9**. The details of pre and post monsoon data of average ground water levels are given in **Table-2.8**:

⁶⁷ ground, surface water and rainwater harvesting including recharge/roof water collection and bulk transfer through pipelines

⁶⁸ Piped Water Supply Schemes, hand pumps, bore wells, tube wells, etc.

⁶⁹ such as infiltration well, percolation of pond/tank, roof water harvesting for community structures like schools, anganwadis, GP office, soak pits etc.,

⁷⁰ Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), National Afforestation Programme (NAP), Integrated Watershed Management Programme (IWMP), etc.

⁷¹ To make water available in terms of potability, adequacy, convenience, affordability and equity on sustainability basis

Table-2.8

(Meters below ground level)

Name of the district	May 2014 (pre-monsoon)	November 2014 (post-monsoon)	May 2015 (pre-monsoon)	November 2015 (post-monsoon)	May 2016 (pre-monsoon)	November 2016 (post-monsoon)	May 2017 (pre-monsoon)
Anantapuramu	17.79	19.57	22.92	14.75	19.23	21.35	26.21
Chittoor	23.29	25.01	30.34	15.16	11.54	15.33	23.36
Guntur	6.90	5.45	8.95	8.28	12.05	6.70	10.17
Vizianagaram	6.56	3.37	6.44	4.13	6.51	4.36	7.38
West Godavari	14.79	14.86	18.14	18.65	19.08	16.67	20.10
YSR	17.61	19.72	24.52	15.39	15.70	17.53	24.02

Source: Reports of CM Office Real-Time-Executive Dashboard relating to Ground Water Department

Audit observed that depletion of ground water levels was fluctuating significantly according to rainfall. However, the ground water level depleted in the pre-monsoon season of 2017 in comparison to pre-monsoon season of 2014 in all the test-checked districts.

- ii) The status of functioning of rural water supply schemes (under NRDWP) sourcing from ground water and surface water in the test-checked districts is given below:

Table-2.9

Name of the district	Total number of schemes functioning as of August 2017	Number of schemes functioning based on ground water	Number of schemes functioning based on surface water	Number of schemes functioning on other sources	Percentage of ground water based schemes
Anantapuramu	23211	23043	108	60	99.2
Chittoor	30464	30418	27	19	99.8
Guntur	24912	24001	817	94	96.3
Vizianagaram	18088	17989	34	65	99.4
West Godavari	9403	8582	801	20	91.2
YSR	19332	19097	24	211	98.7

Source: IMIS data

From the above table, it was noticed that, the schemes were functioning mostly sourced from ground water which ranged from 91.20 per cent to 99.80 per cent. The dependency on ground water was highest in Chittoor district (99.80 per cent). This would adversely affect the levels of ground water.

- iii) In consonance with the policy of GoI (July 2016) with regard to gradual shift from the groundwater sources to surface water sources, each State shall take up one Bulk Water Supply (BWS) scheme based on surface water as source. GoI earmarked an amount of ₹39 crore from programme fund (Central share) for Andhra Pradesh. However, the Department did not take up the BWS scheme for implementation as of December 2017. Reasons for not taking up of scheme were not furnished by Department despite specific requests.

Thus, there is a need to reduce dependence on groundwater by conjunctive use from various sources⁷², as stipulated in the guidelines⁷³.

2.1.7.7 Support

Support activities include five *per cent* of NRDWP expenditure on Establishment activities, Information, Education and Communication (IEC), Human Resource Development (HRD), Management Information System (MIS) and computerisation, Research & Development (R&D). Expenditure details under various support activities are given in table below:

Table-2.10

	2012-13	2013-14	2014-15	2015-16	2016-17	(₹ in lakh) Total Expenditure (Percentage)
Establishment Activities	818.17	700.15	1043.35	858.7	667.01	4087.38 (74)
IEC Activities	26.87	274.06	423.75	26	0.25	750.93 (14)
HRD Activities	46.47	162.05	106.78	22	2.89	340.19 (6)
MIS Activities	12	10	94.47	0.57	0	117.04 (2)
R&D Activities	0	0	0	0	0	0
Other Activities	107.18	43.54	51.82	61	0	263.54 (5)
Total	1010.69	1189.80	1720.17	968.27	670.15	5559.08

Source: Information furnished by the RWS&S Department

It was noticed that the funds received under support component was mostly incurred on establishment activities (74 *per cent*). The Department did not focus on other activities viz., HRD and IEC, R&D for improvement of the programme. Reasons for not focusing on other activities were not furnished by Department despite specific requests.

Preparation and implementation of Support activity plan

- (i) As per guidelines, Action Plan for IEC, HRD and other support activities including Capacity Building Plan should be need-based. SLSSC should approve Action Plan every year before or at the commencement of the financial year to which it relates.

However, audit noticed that these activities were not included in the Annual Action Plan. IEC campaign (keeping in view the primary⁷⁴ and secondary⁷⁵ target groups) during the review period was not planned. Capacity building plan was not prepared either at district level or at State level. Training module based on Training Needs Assessment for different stakeholders was also not prepared annually.

DWSM, Guntur did not prepare a plan for IEC activities and capacity building even though, an amount of ₹97.77 lakh was available as of March 2017. As a result, the

⁷² surface water and rainwater harvesting including recharge/roof water collection and bulk transfer through pipelines

⁷³ As per para 9.1 of NRDWP guidelines

⁷⁴ Rural community, women, school going children and youth, Panchayat members and village elders/ community leaders

⁷⁵ Other important stakeholders and influencers (programme managers, district officials, etc.)

DWSM failed to take up training programmes⁷⁶ for the members of VWSC and communication activities⁷⁷.

- (ii) State Governments are encouraged to establish Research and Development (R&D) cells with adequate manpower and infrastructure. R&D Cells are required to be in link with the Monitoring and Investigation Unit (MIU) and study the Monitoring and Evaluation Study Reports for initiating appropriate follow up action.

However, R&D cells were not set up in the State. As a result, there were no new ideas/ initiatives in the State for effective implementation of the programme.

2.1.7.8 Water Quality Monitoring and surveillance (WQMS)

The National Rural Water Quality Monitoring & Surveillance Programme launched in February 2005 was merged with NRDWP (2013). From 2011-12, a separate component of WQMS was created. Three *per cent* of NRDWP fund was allocated for WQMS in habitations at field level and for setting up, upgrading Water Quality Testing Laboratories at State, district and sub-district level.

During the review period, ₹45.01 crore of GoI contribution and ₹5.25 crore of State contribution was allocated to WQMS. An amount of ₹57.35 crore (including previous year balance of ₹7.29 crore) was incurred for activities under WQMS.

a) Water Quality Testing Labs

GoI issued Uniform Drinking Water Quality Monitoring Protocol in February 2013. The protocol prescribed specific requirements for monitoring drinking water quality to ensure provision of safe drinking water to the consumers. In addition, laboratories at State, District and Sub-district level and their quality control units for regular testing and surveillance of drinking water sources were to be setup. As per strategic plan, all water quality testing laboratories at State and district level should obtain accreditation from the National Accreditation Board for Testing and Calibration Laboratories (NABL). Audit noticed the following deficiencies in functioning of laboratories:

- i) Out of 107 laboratories established in the State, accreditation was obtained (April 2016) for only one laboratory (Guntur district laboratory). It was stated that efforts would be made to get accreditation for four laboratories⁷⁸.

Delay in accreditation of laboratories would result in non-assessment of quality and technical competence of testing and calibration of laboratories.

- ii) Mobile testing laboratory is an effective tool for monitoring the quality of drinking water sources in hilly & remote habitations and in emergency situations. However, the same was not established in the State. As a result, the quality of drinking water sources in hilly & remote habitations and in emergency situation could not be monitored.

⁷⁶ On water quality and sanitation, social mobilisation, etc.

⁷⁷ inter-personnel communication, group meetings, etc.

⁷⁸ State laboratory at Vijayawada, divisional laboratories at Kadapa, Nellore and Visakhapatnam

State Government assured (December 2017) that mobile testing laboratories would be established.

- iii) Test facilities for conducting of virological examination⁷⁹ of water samples were not provided in the water testing laboratories. In the absence of these facilities, the Department could not ensure the safe water supply. During 2014-16, 9,736 people were infected by Viral Hepatitis as detailed in **Table-2.12**.
- iv) As per Uniform Drinking Water Quality Monitoring Protocol, the State Level Water Testing Laboratory should have the capability and facilities for testing 78 parameters. However, the State laboratory has the facility to test only 41 parameters. The district level laboratory should have the capability and facilities for testing 34 parameters. However, in the test-checked districts, the laboratories had the facility to test only 11-23 parameters. This indicated that the Department had compromised in testing all parameters⁸⁰ to ensure supply of quality drinking water.
- v) Even though SWSM issued instructions (January 2015) to all the division and sub-division level water testing laboratories for upgrading infrastructure facilities, no funds were released for their upgradation. None of the laboratories, as a result, was upgraded in the test-checked districts. Hence, laboratories could not conduct all the prescribed water quality tests.

b) Water Quality Testing

i) Non-achievement of targets fixed for water sample tests

As per NRDWP guidelines, all drinking water sources should be tested at least twice a year for bacteriological contamination and once a year for chemical contamination. However, SWSM did not achieve the targets fixed in respect of water samples tested during the period 2012-17. The details are given in **Table-2.11**:

Table-2.11

Year	No. of sources to be tested	Targets fixed		Achieved		Short achievement	
		Bacteriological	Chemical	Bacteriological	Chemical	Bacteriological	Chemical
2012-13	252597	505194	252597	448813	222291	56381	30306
2013-14	252604	505208	252604	209280	157397	295928	95207
2014-15	252606	505212	252606	157974	136716	347238	115890
2015-16	252606	505212	252606	144733	121794	360479	130812
2016-17	252608	505216	252608	26882	24745	478334	227863
Total	1263021	2526042	1263021	987682	662943	1538360	600078

Source: Information furnished by the RWS&S Department

From the above table, it was evident that the achievement of targets in respect of Bacteriological and Chemical parameters was only 39 per cent and 52 per cent respectively during the period of 2012-17.

⁷⁹ The method involves the concentration of viruses from 100 litre of drinking water to 1ml by membrane filter technique

⁸⁰ Bacteriological, virological and biological requirements as envisaged in the guidelines

Further, in the test-checked districts, there were 5,07,089⁸¹ water sources. These were to be tested for bacteriological and chemical parameters twice and once a year respectively. Out of targeted 10,14,178⁸² bacteriological tests, only 4,58,970⁸³ tests were conducted (45 per cent) during the period 2012-17. As against the targeted 5,07,089 tests, only 2,38,894⁸⁴ chemical tests were conducted (47 per cent). This indicated that supply of safe drinking water was compromised to that extent.

Thus, the Department could not ensure the supply of quality water. These shortfalls become significant in the context of the fact that during 2014-16, 41,61,706 persons were infected by water borne diseases as given below:

Table-2.12

Year	Acute Diarrhoeal disease	Enteric fever (Typhoid)	Viral Hepatitis	Total
2014	1332145	186446	3716	1522307
2015	1122740	146385	3358	1272483
2016	1194005	170249	2662	1366916
Total	3648890	503080	9736	4161706

Source: Report submitted to Lok Sabha by Ministry of Drinking Water and Sanitation, GoI on 6.4.2017

State Government replied (December 2017) that efforts would be made to obtain funds from GoI and also release State Government's share for procurement of required quantities of refills of chemical reagents⁸⁵ and H2S vials⁸⁶. The reply was not acceptable as GoI had imposed a cut of ₹2.78 crore due to failure of the Department to utilise the funds under WQM&S in 2014-15 and 2016-17.

ii) Testing of water samples against the norms prescribed by Bureau of Indian Standards

NRDWP guidelines specified that testing of drinking water should be done in accordance with the norms prescribed by Bureau of Indian Standards (BIS). For chemical requirements⁸⁷, acceptable limit is to be implemented. Values in excess of acceptable limit render the water not suitable for drinking. However, it may be tolerated in the absence of an alternate source up to the permissible limit.

Verification of water sample test reports of habitations of test-checked districts revealed that concerned laboratories reported safe/potable water though the acceptable limits were exceeded. The illustrative instances are given in **Appendix-2.10**.

State Government accepted (December 2017) audit observation and stated that efforts were being made to provide safe drinking water through alternative sources,

⁸¹ Anantapuramu: 1,47,446; Chittoor: 48,328; Guntur:1,02,227, Vizianagaram: 91,643; West Godavari: 35,920 and YSR: 81,525

⁸² 5,07,089*2=10,14,178

⁸³ Anantapuramu-1,29,594, Chittoor-46,760, Guntur-68,834, Vizianagaram-41,644, West Godavari-54,008 and YSR-1,18,130

⁸⁴ Anantapuramu-33,599, Chittoor-35,960, Guntur-35,451, Vizianagaram-21,443, West Godavari-39,411 and YSR-73,030

⁸⁵ used in field test kits for identification of chemical contamination in drinking water

⁸⁶ A simple kit for identifying the bacteriological contamination in the drinking water

⁸⁷ Excess fluoride, brackishness, iron, arsenic, nitrates, etc.

schemes/treatment plants to all the habitations, where the drinking water parameters were above the acceptable limits.

iii) Analysis of water samples

For bacteriological requirements, all samples taken from the distribution system including consumers' premises, should be free from coli-form organisms.

Audit collected (June 2017) samples of water supplied to the villages at the delivery point in the presence of Department officials from Rayampally village (Anantapuramu district) and Utukuru village (Guntur district). The samples were tested at accredited laboratory⁸⁸ for Chemical and Micro-biological parameters. The test reports showed 15 out of 17 parameters within permissible limits. However, two parameters, i.e., 'Total Coli-form bacteria' and 'E-coli or thermotolerant coli-form bacteria' showed their presence. As per acceptable and permissible limits these two parameters should be absent. Thus, the Government had supplied unsafe water (bacteriological contaminated) to these habitations.

iv) Non-providing of testing facilities for uranium contamination

State Government identified the presence of uranium contamination in Nagarjuna Sagar and Kadapa areas of Andhra Pradesh and informed the same to the GoI in March 2014. GoI suggested to provide necessary facilities for testing of Uranium contamination by taking help of Baba Atomic Research Centre (BARC) and Public Health and Engineering Department (PHED), Punjab.

However, action was not initiated for creating facilities for testing uranium contamination in drinking water as of July 2017. Presence of uranium would adversely affect functioning of body organs such as kidneys, bone tissues.

State Government accepted (December 2017) the fact of presence of contamination and stated that the incidences were very rare and area specific. Government assured that facilities would be provided in the State level laboratory for testing of uranium contamination.

c) Field Test Kits

The main objective of the Field Test Kits (FTKs) was to obtain a preliminary report on the quality of water with basic chemical and bacteriological parameters, subject to confirmation through subsequent testing in the established labs. These kits can be utilised by any one at any place by following the instructions or with simple training. The Department is supplying these reagents and vials every year for testing the quality of water with basic parameters. Audit observed that:

⁸⁸ Lucid Laboratories Pvt. Limited, Balanagar, Hyderabad

- i) FTKs were kept idle in the years 2014-15 and 2016-17 due to lack of supply of chemical reagents. Expenditure of ₹1.33 crore incurred on procurement of FTKs remained unfruitful. Thus, the purpose of initial screening of contamination of drinking water was not served.

State Government replied (December 2017) that efforts would be taken to bring unused FTKs into working condition.

- ii) Community contribution⁸⁹ was not collected to meet the operation and maintenance cost of FTKs in the test-checked districts. As a result, operation and maintenance cost of FTKs, could not be met for effective testing of bacteriological and chemical parameters.

State Government replied (December 2017) that instructions would be given to PRIs for collection of community contribution to meet the O&M costs of FTKs.

- iii) Training to grass root level workers⁹⁰ was not provided in test-checked districts for testing water quality through the use of FTKs during the review period. Thus, the drinking water security could not be provided to the households effectively.

State Government replied (December 2017) that training programmes along with sanitary survey would be conducted for achieving the household level drinking water security.

2.1.7.9 Execution of schemes

a) Commissioning of schemes

The State Government is sanctioning the schemes in two components, i.e., Part-A and Part B. Part A consists of all clearances⁹¹ from other Departments/ agencies /PRI bodies. Part-B component relates to execution of work. Only after completion of Part-A requirements, the Engineer-in-Chief shall permit taking up of works under Part-B. Further, head-to-tail approach needs to be followed scrupulously in sequential order in grounding of works to avoid delay. Reliability and sustainability of source and other technical parameters also need to be examined by the State Technical Agency. During audit of test-checked districts, audit noticed the following observations:

i) Non-commissioning of schemes after completion of works

Works were to be taken up for execution only after clearances required from other Departments. However, the following seven schemes were executed but could not be commissioned due to want of permissions from other Departments, land disputes, finalisation of water source.

⁸⁹ at least rupee one per month per family is to be recovered towards cost of disinfection, minor remedial expenses and honorarium to GP level coordinators

⁹⁰ ASHA workers, anganwadi workers, Science teachers and Panchayat members

⁹¹ These clearances include Water drawl permission, land acquisition/ allocation of land by the PRIs, inter Department permissions viz., from Departments of electricity, Roads and Buildings (R&B), Railways, irrigation etc.

Table-2.13

Sl. No	Description of work	Reasons for non-commissioning of the scheme	Expenditure incurred (₹ in crore)
1	<p>Name of the work: J.C. Nagi Reddy Drinking Water Supply Project.</p> <p>Administrative Sanction: May 2006, June 2007, February 2009 and March 2013</p> <p>Estimated cost: ₹508 crore (HUDCO – ₹214.64 crore, State Plan – ₹69.24 crore and NRDWP – ₹224.12 crore)</p> <p>Agreement date: June 2007</p> <p>Scheduled date of completion: September 2008</p> <p>EoAT: March 2013</p> <p>Targeted Habitations: 561 Habitations</p>	<p>The scheme was planned with Gandikota reservoir as source for water drawal. Due to non-completion of tunnelling work from Owk reservoir to Gandikota reservoir, this scheme could not be commissioned after completion of the work (May 2012). Government issued (November 2013) orders to have two water sources for commissioning of the project. (Gandikota and Mid Pennar Dam). However, this did not materialise. Further, Government directed (March 2017) to work out alternate ways for commissioning the scheme. However, the same had also not materialised as on June 2017.</p>	365.88
2	<p>Name of the work: CPWS scheme to Uravakonda and Atmakur Constituencies in Anantapuramu district</p> <p>Administrative Sanction: July 2012</p> <p>Estimated cost: ₹56 crore</p> <p>Agreement date: November 2013</p> <p>Scheduled date of completion: November 2015</p> <p>EoAT: January 2017</p> <p>Targeted Habitations: 40 Habitations</p>	<p>As per original estimate it was planned to draw water for the scheme by constructing intake well at Penna Ahobilam Reservoir. The project was completed after incurring expenditure of ₹46.69 crore and handed over (March 2017) to the Zilla Parishad, Anantapur without constructing the intake well pending permission from irrigation Department. Thus, completion of project without constructing intake well does not serve the purpose of scheme. Department replied (July 2017) that 11 habitations were covered since November 2016 and 28 habitations were covered since August 2016 by drawing water from Neelakantapuram Sri Rami Reddy Drinking Water Supply Project purely on temporary basis in the interest of public.</p>	46.69
3	<p>Name of the work: CPWS scheme to Renigunta and other habitations in Chittoor district</p> <p>Administrative Sanction: January 2012</p> <p>Estimated cost: ₹35 crore</p> <p>Agreement date: May 2014</p> <p>Scheduled date of completion: November 2015</p> <p>EoAT: March 2017</p> <p>Targeted Habitations: 166 Habitations</p>	<p>The source for drawal of water is Teluguganga. Due to stay orders of the Honourable court, the work, i.e., laying of pipe lines in private lands was stalled. Further, due to non-construction of off-take sluice on the canal by the irrigation Department for water drawl, the scheme was not commissioned. Department accepted (June 2017) audit observation.</p>	23.22
4	<p>Name of the work: CPWS scheme to Mandapaka & other habitations in Tanuku (M) of West Godavari district.</p> <p>Administrative Sanction: July 2012</p> <p>Estimated cost: ₹19 crore.</p> <p>Agreement date: May 2014</p> <p>Scheduled date of completion: May 2015</p> <p>EoAT: May 2017</p> <p>Targeted Habitations: 11 Habitations</p>	<p>The scheme was not commissioned due to non-obtaining of railway permission.</p>	12.43

5	<p>Name of the work: CPWS scheme to 14 habitations in Attili (M) of West Godavari district. Administrative Sanction: February 2012 Estimated cost: ₹10 crore. Agreement date: June 2014 Scheduled date: June 2015. EoAT: May 2017</p>	The scheme was not commissioned due to non-obtaining of railway permission to provide pipeline across railway line.	6.46
6	<p>Name of the work: CPWS scheme to Kamavarapukota (M) of West Godavari district. Administrative Sanction: July 2012 Estimated cost: ₹6.30 crore. Agreement date: March 2014 Scheduled date of completion: February 2015 EoAT: February 2016 Targeted Habitations: 11 Habitations</p>	The project was not commissioned due to non-obtaining of dedicated power connection.	5.22
7	<p>Name of the work: Augmentation of CPWS scheme to Tadikonda, Tulluru, Medikonduru and Phirangipuram mandals of Guntur district. Administrative Sanction: June 2010 Estimated cost: ₹8 crore Agreement date: May 2011 Scheduled date of completion: May 2012 EoAT: March 2016 Targeted Habitations: 12 Villages</p>	The project was not commissioned due to land dispute and non-receipt of water from source.	4.74
Total			464.87

As a result, even though works were completed, the Department could not commission these seven schemes. This resulted in unfruitful expenditure of ₹464.87 crore. Further, the objective of providing safe drinking water to the proposed 815 habitations was not achieved.

ii) Works completed and commissioned without coverage of targeted habitations

Nine schemes were partially executed at a cost of ₹86.35 crore and were commissioned. These schemes were targeted to cover 782 habitations. However, distribution systems were curtailed for reasons such as insufficient funds, damage of pipe lines and pending clearances from railway authorities. As a result, the Department could cover only 349 habitations as detailed below:

Table-2.14

Sl. No.	Name of the scheme/project	Targeted/proposed habitations	Habitations covered	Estimated Cost (₹ in crore)	Expenditure incurred (₹ in crore)	Reply/Reasons for non-coverage of targeted habitations
1	CPWS scheme from Jerrivagu to 27 habitations in Veldurthy Mandal. Estimated cost ₹10 crore	27	5	10.00	8.85	Due to insufficient funds the remaining 22 habitations could not be covered.

2	CPWS scheme to KV palli, Kalikiri and Kalakada Mandals in Chittoor district. Estimated cost: ₹38.95 crore	506	359	38.95	34.75	Due to insufficient funds, the remaining habitations (147) could not be covered.
3	CPWS scheme to Tadipudi and 16 other habitations in Tallapudi (M) of West Godavari district. Estimated cost: ₹6 crore	17	4	6.00	5.27	Due to paucity of funds only four habitations were covered. It was further stated that DPRs were submitted to cover balance 13 habitations under NABARD grant.
4	Balance work of CPWS Scheme to Lankalakoderu and other habitations of West Godavari district. Estimated cost: ₹3 crore	45	7	3.00	1.29	Due to pending works at road widening and railway crossings, the scheme could not be completed.
5	Augmentation of PWS schemes in Unguturu mandal in West Godavari district. Estimated cost: ₹20 crore	42	8	20.00	12.36	Scheme is under defect liability period and instructions would be given to the contractor for covering of the remaining habitations.
6	Providing CPWS Scheme to Veeravasaram and other habitations of West Godavari district Estimated cost: ₹5.00 crore	24	2	5.00	4.17	Damage of gravity main pipeline and non-functioning of micro-filter.
7	Providing CPWS scheme to Saripalli and other habitations of West Godavari district Estimated cost: ₹5 crore	18	0	5.00	2.34	Reasons were not furnished by the Department.
8	CPWS scheme to Madavaram and other habitations of West Godavari district Estimated cost: ₹17.50 crore	14	0	17.50	10.90	Paucity of funds and proposed to be covered under Phase-II.
9	Providing CPWS scheme to Achanta constituency	88	5	8.00	6.42	Due to land dispute.
	Total	782	349	113.45	86.35	

Thus, due to non-execution of works as per estimates, potable drinking water was denied to 433 habitations.

State Government accepted (December 2017) the audit observations and stated that balance habitations would be covered in other phases.

iii) Works stopped mid-way

Audit noticed, in three out of the six test-checked districts, that seven schemes were stopped mid-way by the contractors after incurring an expenditure of ₹26.96 crore. Reasons for stoppage of works by the contractor were not furnished to audit despite specific request. The implementing agency failed to take appropriate action to complete the left over works. The expenditure remained unfruitful as detailed in *Appendix-2.11*.

b) Contract Management

i) Acceptance of single tender

As per State Government orders (July 2003)⁹² single tender with premium should not be accepted in the first call and the Department was required to go for second call. Even after second call, if the same response was received, the Department had to report the matter to the Government and the works are to be entrusted to the agencies nominated by the Government at estimated rates.

In two test-checked districts, two works were awarded on single tender basis in the first call as detailed in *Appendix-2.12*. Thus, benefit of competitive rates was not ensured due to acceptance of single tenders.

ii) Avoidable cost escalation

The drinking water project to Quality Affected habitations in Nuzendla mandal⁹³, Guntur district was taken up in two clusters, i.e., Mruthyunjayapuram scheme and Puvvada scheme at an estimate cost of ₹ six crore.

As per the records, all the works⁹⁴ of Mruthyunjayapuram scheme were executed (January 2013) after incurring an expenditure of ₹0.95 crore except construction of summer storage (SS) tank. This was not taken up as land was not acquired. Hence, the project was lying idle as of May 2017. The revised estimate at a cost of ₹10 crore for construction of SS tank was administratively sanctioned in April 2013. The same was entrusted to a contractor (April 2017) for ₹ 8.25 crore.

Thus, failure of the Department to acquire land for construction of SS tank before grounding of the work, resulted in cost escalation of ₹7.32 crore⁹⁵, which was avoidable. Meeting of cost escalation from NRDWP funds was also not admissible as per guidelines.

State Government accepted (December 2017) the audit observation and stated that cost escalation was due to change in the Standard Schedule of Rates (SSR).

⁹² G.O.Ms.No.94 dt.1.7.03 r/w AP Public Works code

⁹³ Administrative sanction: March 2011; targeted habitations:15; entrustment of work: November 2011; Schedule period of completion: 12 months; contract value: ₹5.38 crore

⁹⁴ laying of pipeline, construction of clear water sump, providing of gravity mains, etc.

⁹⁵ Revised estimate cost of ₹10 crore *minus* Original estimate cost of ₹2.68 crore for Mruthyunjayapuram scheme

2.1.8 Monitoring and Evaluation

As per NRDWP guidelines, State Government, SWSM and DWSM have pivotal role in monitoring and evaluation of the programme at State and district level. Audit noticed that:

- i) Integrated Management Information System (IMIS) is an important mechanism for monitoring the Programme implementation. To this end, the officials are required to furnish the data online, as prescribed by GoI. The release of funds is based on data furnished online by the State. However, cross verification of IMIS data with physical record revealed inconsistencies⁹⁶ as detailed in *Appendix-2.13*. Thus, the integrity of IMIS data (with regard to Piped Water Supply schemes and hand pumps, functioning of schemes, list of schools and Anganwadis and surface water bodies) for monitoring the programme implementation was doubtful.
- ii) As per GoI instructions (August 2016), State Government was required to complete the process of geo-tagging⁹⁷ of sources and delivery points by September 2016. However, audit noticed that the process of geo-tagging was not completed as of May 2017.

State Government accepted (December 2017) audit observation and stated that 1,91,595 assets were uploaded and geo-tagging for the remaining 81,596 assets was under process.
- iii) DWSMs did not constitute team of experts to carry out inspections⁹⁸ to assess the implementation of the programme in the test-checked districts. Thus, monitoring and implementation of water quality and involvement of community in testing of water samples could not be ensured at district level.
- iv) As per guidelines, SWSM should conduct review of the programme in the districts once in six months. In the test-checked districts, it was informed that DWSMs conducted the review meetings. However, minutes were not being maintained. This indicated the failure of SWSM to monitor the implementation of the programme at field level.
- v) As per guidelines, Vigilance and Monitoring Committees (VMCs) are to be set up at State, district and village level. In all the test-checked districts, VMCs were set up. However, no meetings were conducted during the review period except in YSR district where three meetings were conducted during 2015-16. As such, the VMCs had not monitored the implementation of the programme effectively.

⁹⁶ with regard to Piped Water Supply schemes and hand pumps, Functioning of schemes, list of schools and Anganwadis and surface water bodies

⁹⁷ to have the complete geographical location database of the drinking water supply sources and delivery points functioning in the field to have an effective monitoring and planning

⁹⁸ to check and ensure that the water quality monitoring and surveillance programme is implemented in accordance with the norms and also ensure involvement of community in the analysis of water samples using field test kits

- vi) Audit noticed that Community monitoring mechanism⁹⁹ at village level did not exist in the test-checked districts. Social Audit by the community organisations¹⁰⁰ was also not conducted. Thus, it was evident that the community was not involved in monitoring of the programme.
- vii) Customer Consultation and Grievance redressal mechanism¹⁰¹ was not established in the test-checked districts. Thus, consumer grievances pertaining to supply of safe drinking water could not be addressed.
- viii) State Government did not conduct monitoring and evaluation studies, as envisaged in the guidelines to improve the implementation of the rural water supply programme. As such, the corrective measures were not taken up for improving the quality of the programme at higher level.
- ix) Monitoring and Investigation Unit (MIU)¹⁰² to monitor quality of implementation of the programme¹⁰³ at field level was not set up in the State. As such, qualitative aspects of the programme at field level could not be ensured.
- x) The Department did not show the achievement of key performance indicators prescribed by GoI for achieving the objectives of strategic plan¹⁰⁴ as of July 2017.

Thus, effective monitoring and evaluation of the programme was absent during the period covered under audit.

2.1.9 Findings of Beneficiary Survey

Beneficiary survey covering beneficiaries (1,120 households in 60 habitations) from six test-checked districts was conducted. The survey assessed the response of the beneficiaries with regard to issues impacting them *viz.*, supply of drinking water, water quality, training and community involvement and operation & maintenance of the scheme. The results of survey are summarised below:

- In test-checked districts of Chittoor and YSR, out of 320 beneficiaries, 189 (44 *per cent*) were spending more than 30 minutes for fetching water.
- Water samples were not collected in 350 (31 *per cent*) out of 1120 cases.
- Training and awareness generating IEC activities on drinking water were not provided / organised in 678 (61 *per cent*) out of 1120 cases test-checked.
- Out of 1120 households, 1056 (94 *per cent*) households were not paying user charges towards maintenance of water supply schemes.

⁹⁹ to fulfil the objectives of providing regular and systematic information about community needs, community monitoring in planning, implementation and management of rural water supply services

¹⁰⁰ every six months on a fixed date there should be a social audit by the community organisation to ensure that the works undertaken by the Department are as per specifications

¹⁰¹ provision of a toll free number, call centres, mobile SMSs, linking GPs with Block and District IMIS systems

¹⁰² to collect monthly, quarterly and annual program reports of the water supply schemes, maintenance of data and timely submission to GoI

¹⁰³ monitoring aspects of quality of water, adequacy of service and other related qualitative aspects

¹⁰⁴ percentage of reduction in prevalence of diarrhoea in children under 5 from base year, percentage of reduction in IMR from base year, percentage of villages 24x7 safe water supply throughout the year etc.

- Community Water Purification Plants (CWPPs) were not installed in any of the test-checked habitations.
- Results of water quality testing and alerts of contamination were not communicated and displayed in any of the test-checked habitations.

2.1.10 Conclusion

Water security plans were not prepared. Annual Action Plans were prepared without participation of local community. Water quality affected habitations were not prioritised.

Financial management was not efficient as there were instances of inadmissible expenditure, short release of funds by State Government and delay in release of funds.

The State Government did not ensure supply of adequate quantity of water which resulted in increase of partially covered habitations. Government did not introduce water metering and did not conduct water and energy audits to reduce the unaccounted/wastage of water.

Schemes were functioning with over dependence on ground water without shifting to the conjunctive use from several sources. Water quality testing was inadequate as the testing laboratories were not strengthened.

Community Water Purification plants were not installed in any of the test-checked habitations. Water samples were not collected for quality testing in all the test-checked habitations. Results of water quality testing and alerts of contamination were not communicated and displayed in all the test-checked habitations.

Schemes were not completed and commissioned in time and the habitations were deprived of safe drinking water.

2.1.11 Recommendations

- Active participation of PRIs in preparation and implementation of Annual Action Plan may be ensured for effective implementation of the programme.
- Government may gradually shift from over-dependence on ground water to conjunctive use from several sources.
- Schemes may be completed within time as planned so that the benefits reach as intended.
- Laboratories may be strengthened with adequate facilities to monitor supply of safe drinking water.

Government accepted (November 2017) the recommendations of Audit and assured compliance.

School Education Department

2.2 Right of Children to Free and Compulsory Education

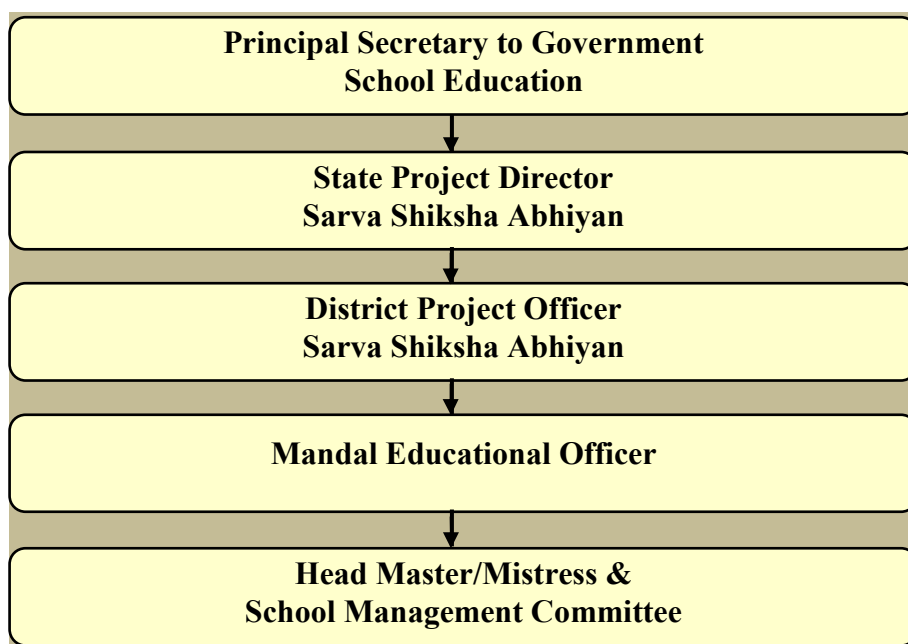
2.2.1 Introduction

The Right of Children to Free and Compulsory Education (RTE) Act, 2009 became operational with effect from 01 April 2010. The RTE Act provides right to free and compulsory education to all children in the age group of 6-14 years in a neighbourhood school¹⁰⁵ from class 1 to class 8. Sarva Shiksha Abhiyan (SSA) is the main vehicle for implementing the provisions of the RTE Act. Government of Andhra Pradesh (Government) notified (March 2011) the AP Right of Children to Free and Compulsory Education Rules (RTE Rules), 2010. As of March 2017, 34.76 lakh children were enrolled in Primary and 20.85 lakh children were enrolled in Upper Primary (UP) classes in 61,528 schools of the State. The Act defined free education as 'removal of any financial barrier by the State that prevents a child from completing eight years of schooling'.

2.2.2 Organisational set up

The overall responsibility of implementation of the Act vests with the Principal Secretary to Government in School Education Department. The State Project Director (SPD), SSA is the Nodal Officer for implementation of the programme in the State. The District Project Officer (DPO), SSA at district level and Mandal Educational Officer (MEO) at Mandal level are responsible for implementation of programme. At school level, Head Masters/ Head Mistresses (HMs) and School Management Committees (SMCs) have the responsibility to implement the programme.

Chart-2.3: Organisational Chart



¹⁰⁵ the habitations in a safe walking distance of one km for a Primary school (classes 1 to 5) and three km for an Upper Primary school (classes 6 to 8)

2.2.3 Audit Framework

2.2.3.1 Audit objectives

The Performance Audit of implementation of the RTE Act in the State was taken up with a view to verify:

- Whether the RTE act achieved its objective to make elementary education a fundamental right for all children between ages of 6-14 years;
- Whether the funds allocated were utilised in an economic and efficient manner;
- Whether the RTE act was being implemented and monitored in a planned manner; and
- Whether any mechanism was in place to track Sustainable Development Goal (SDG) indicators.

2.2.3.2 Audit Criteria

The Audit observations were benchmarked against the criteria sourced from the following:

- RTE Act, 2009
- AP RTE Rules, 2010
- Minutes of meetings of the Project Approval Board (PAB), Annual Work Plans & Budget (AWP&B)
- Government orders issued from time to time
- Goal number 4 (Quality Education) of SDG as envisioned by the United Nations

2.2.3.3 Scope and Methodology of Audit

Performance Audit was conducted (March-July 2016¹⁰⁶ and May-July 2017) to assess the extent of implementation of the RTE Act. The Audit covered the period from inception of the Act i.e., 2010-11 to 2016-17. Audit methodology involved scrutiny of records at State level offices; district level offices in three sampled districts¹⁰⁷ selected through PPSWOR¹⁰⁸ method. In each sampled district, Audit sampled four Mandals (three rural & one urban) and 30 schools¹⁰⁹ through SRSWOR¹¹⁰ method. Details of sampled Mandals and schools are in *Appendix-2.14*. Responsibility centres at various levels are shown below:

¹⁰⁶ For All India Performance Audit for the period 2010-16

¹⁰⁷ Anantapuramu, East Godavari and Srikakulam

¹⁰⁸ Probability Proportion to Size Without Replacement

¹⁰⁹ 20 Government/ Specified category schools and 10 Aided schools

¹¹⁰ Simple Random Sampling Without Replacement

State Level	<ul style="list-style-type: none">• State Project Director, Sarva Shiksha Abhiyan• Commissioner & Director of School Education
District/ Mandal Level	<ul style="list-style-type: none">• District Project Officer, Sarva Shiksha Abhiyan• District Educational Officers• Mandal Educational Officers
School Level	<ul style="list-style-type: none">• School Head Masters• School Management Committees

Audit objectives, methodology, scope, criteria and audit sampling were explained to the departmental authorities during Entry conference held on 16 December 2016. Audit Enquiries were issued and discussions were held with departmental authorities at various levels to substantiate findings wherever necessary. Audit findings were discussed in an Exit conference (27 October 2017) with SPD, SSA. Replies of the Government have been incorporated at appropriate places in the Report.

Audit findings

2.2.4 Implementation

The Department of Elementary Education and Literacy in the Ministry of Human Resource Development (MHRD), Government of India (GoI) implemented the Act at the National level. SSA was the main vehicle for implementation of RTE Act in the State, the MHRD aligned the activities/ interventions under SSA with the provisions of RTE Act. The Annual Work Plans and Budget (AWP&B) of the State under SSA needs approval of the Project Approval Board (PAB) under MHRD.

2.2.4.1 Conduct of Survey

Rule 7 of RTE Rules, 2010 stipulated that Local authority¹¹¹ should maintain a record of all children through a household survey from their birth till they attain the age of 14 years and the data should be updated each year.

Audit observed that at the State level, Government has projected the population of children in the age group of 6-14 years by adopting the Census 2011 figures. Government arrived at the projected number of children by revising the Census figures based on population growth rate. The Department had prepared Unified District Information System for Education (U-DISE) with these projected figures. However, the Department prepared the AWP&B based on the total of actual enrolment and 'Out of School Children'.

Scrutiny of records in the test-checked schools revealed that no household survey was conducted during 2010-17 to identify all the children in the age group of 6-14 years. As

¹¹¹ Municipal Corporation, Zilla Parishads, Mandal Praja Parishads, Gram Panchayats and includes authority/body having administrative control over the school or empowered by or under any law to function as local authority

such, the details of children not enrolled in Anganwadi centres and Primary schools would not be available in the data.

In Exit conference, the Department stated (October 2017) that survey was conducted at School level but not documented. The Department also stated that the task of conducting Comprehensive Household survey was difficult.

Thus, the data of children in the age group of 6-14 years available with the schools was not complete. Hence, the incomplete data cannot form a base to achieve the objective of the Act.

2.2.4.2 School mapping and neighbourhood schools

Sub-rule (1) below Rule 5 stipulated that a school shall be established within a walking distance of the neighbourhood. Rule 3 (18) of the Rules defined the neighbourhood of a school as the habitation in a safe walking distance of one kilometer (km) for Primary School and three km for an Upper Primary School. Further, as per Rule 3 (22) of RTE Rules, school mapping means planning the school location to overcome social barriers and geographical distance. This includes assessing availability of schooling facilities for elementary education through a Geographical Information System (GIS) of the State.

The State Government reported in the AWP&B for 2017-18 that 94 *per cent* of GIS mapping was completed. In Audit, it was however, observed that the Government had not designed GIS mapping to identify the availability of schools from the habitations as stipulated. The GIS of the Department did not contain provision for identifying the habitations, which did not have Primary schools within one km and Upper Primary schools within three km.

Audit noticed that 2,350 habitations (21,023 children) out of total 50,008 habitations in the State did not have a Primary school during 2016-17. Similarly, 2,581 habitations (22,005 children) did not have Upper Primary school within their neighbourhood during 2016-17. There were no Primary schools in the neighbourhood of 360 habitations (2,434 children) out of 11,720 habitations in the three sampled districts. There were no Upper Primary schools in the neighbourhood of 810 habitations (8,727 children) in these sampled districts.

The SPD, SSA had accepted (June 2017) the observation and stated (October 2017) that the mapping work was entrusted to the District Collectors and was under process.

In the absence of schools in the neighbourhood, the children of the above habitations had to travel long distance for schooling.

2.2.4.3 Schools in difficult terrain areas

Sub-rules (3) (4) and (5) below Rule 5 stipulated that, Government or the local authority should avoid dangers due to reasons such as landslides, floods, lack of roads, in approach of students from their homes to schools while locating schools in areas of difficult terrain. The Rules suggested various methods to achieve this. Making adequate arrangements for free transportation of children from small hamlets was one of the

suggestions. This arrangement applied to cases where no school exists within the area or limits specified under the Rules.

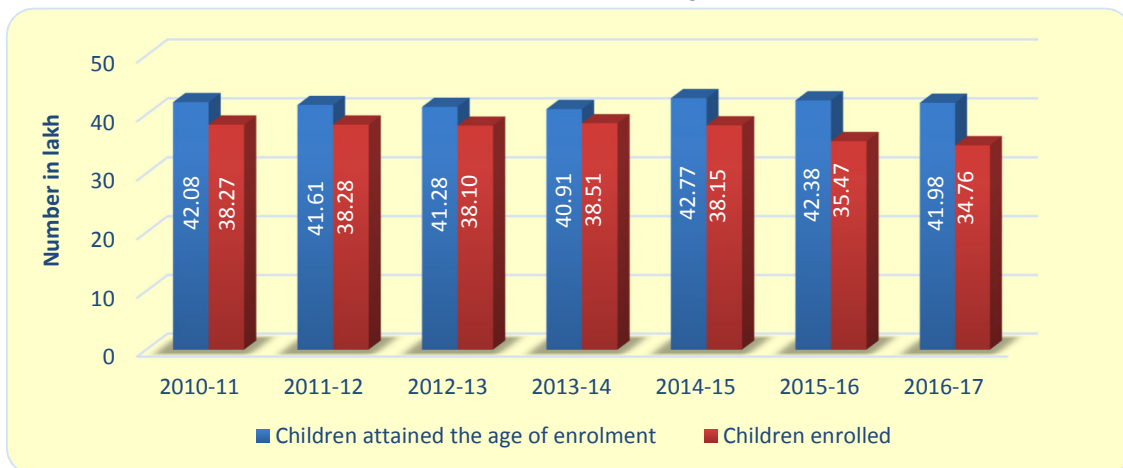
Audit noticed that Government had not notified any area as a difficult terrain or a remote habitation. The SPD and DPOs however, incurred an amount of ₹ 9.66 crore¹¹² on providing free transportation facilities to 59,270 children during 2011-14 and 2015-16. Government had claimed money on this account for 45,000 and 24,192 students during 2014-15 and 2016-17 respectively. The PAB however, refused to release funds for the purpose as the State did not notify the areas as difficult terrains. The SPD stated (October 2017) that the task was entrusted to the District Collectors and issue of notification was in process. Government needs to expedite issue of notification of difficult terrains without further loss of time.

The Andhra Pradesh State Road Transport Corporation (APSRTC) provided free transportation facility in its buses to the students up to eighth class. Audit analysed the data of habitations having / not having road connectivity¹¹³ and the details of payments made in the test-checked districts on transportation charges. Audit noticed that the SPD paid an amount of ₹ 2.52 crore towards private transportation where public transportation facility was available in test-checked districts. The DPOs in test-checked districts did not furnish any specific reply.

2.2.4.4 Targets for Enrolment

Charts-2.4 and 2.5 shows the details of number of children who attained the age of enrolment and actually enrolled in Primary and Upper Primary schools during 2010-17 (Details of enrolment in test-checked districts are given in *Appendix-2.15*).

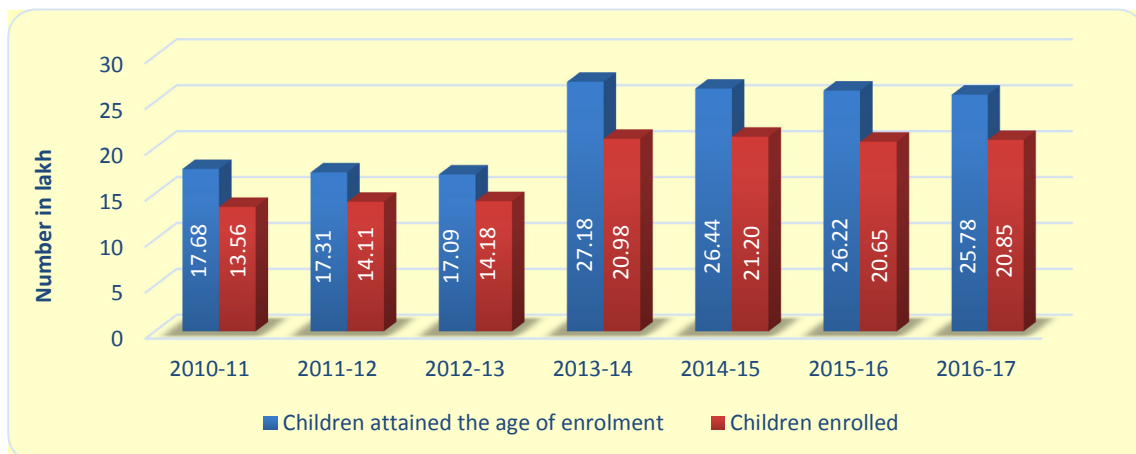
Chart-2.4: Primary



Source: U-DISE, SSA

¹¹² 2011-12: ₹ 0.78 crore (2,713 children), 2012-13: ₹ 0.70 crore (21,731 children), 2013-14: ₹ 3.23 crore (17,080 children) and 2015-16: ₹ 4.95 crore (17,746 children)

¹¹³ available with the Commissioner of School Education

Chart-2.5: Upper Primary¹¹⁴

Source: U-DISE, SSA

Section 6 read with Section 8 (f) of the RTE Act aimed at making the right of children to free and compulsory education a fundamental right by 2013 by ensuring admission, attendance and compulsory education to every child. The essence of the provision of the Act was to see every child in the society enrolled in the schools. Audit noticed that the enrolment of students in Primary and Upper Primary schools had not been achieved 100 per cent even as of 2016-17.

Further, in test-checked schools, some of the HMs incorrectly recorded the targets as actual enrolment.

The Department stated (October 2017) that the data of children of six years was being obtained through Anganwadi centres every year but it was not documented. This indicated non-fixation of targets at all levels, i.e., at School/ Mandal/ District/ State level.

2.2.4.5 Trends of Enrolment

Government had organised programmes like 'Badi Bata'¹¹⁵/ 'Badi Pilustondi'¹¹⁶/ 'Mana Vuru-Mana Badi'¹¹⁷ in the month of June every year. Government organised these programmes with the help of teachers before commencement of the academic year to enrol the students in Government Schools. Audit, however, observed decrease in enrolment during 2010-17, which indicated that these programmes had not yielded the desired results.

The Gross Enrolment Ratio¹¹⁸ (GER) in respect of Primary classes decreased from 91 per cent in 2010-11 to 83 per cent in 2016-17. In respect of Upper Primary classes, the GER increased from 77 per cent (2010-11) to 81 per cent (2016-17).

In test-checked districts, however, the GER varied between 80 per cent and 100 per cent during 2010-17. The data of population of children in relevant age group in respect of

¹¹⁴ Increase in enrolment in Upper Primary classes from 2013-14 onwards was due to adding up of 8th class to Upper Primary classes

¹¹⁵ Way to School

¹¹⁶ School is calling

¹¹⁷ Our village-our school

¹¹⁸ (Enrolment/ Population in relevant age group) X 100

Primary and Upper Primary classes was not reliable in the test-checked schools. As such, Audit could not assess the trends of increase or decrease in enrolment of children in test-checked schools.

The SPD and DPOs of SSA in the test-checked districts attributed decreasing trend of enrolment to data cleansing exercise for eliminating duplicate entries. They also attributed this to the children taking care of their siblings and to migration of parents. Government, though identified the causes for decrease in enrolment, had not taken adequate steps to bring children to schools.

2.2.4.6 Zero/ low enrolment schools

Scrutiny of minutes of meetings of the PAB revealed that the zero enrolment primary schools increased from 176 (0.5 per cent) in 2015-16 to 438 (one per cent) in 2016-17. In respect of Upper Primary schools, the zero enrolment schools increased from 327 (3 per cent) in 2015-16 to 506 (4 per cent) in 2016-17.

Further scrutiny of the minutes of PAB revealed that Primary schools with less than 15 children increased from 4,572 (12 per cent) in 2015-16 to 5,503 (14 per cent) in 2016-17. Similarly, the number of Upper Primary schools with less than 15 students increased from 1,216 (11 per cent) in 2015-16 to 1,407 (12 per cent) in 2016-17.

During 2013-14 to 2016-17, 5,443 schools (Government: 3,361, Private aided: 202 and Private Unaided: 1,880) were closed in the State.

The Department, in the Exit conference, stated (October 2017) that enrolment declined due to migration of children to Private schools. From the reply of the Department, it would be reasonable to conclude that the quality of education in Government schools was significantly below the standards prevailing in private schools. With regard to closure of schools Department stated that (i) Government/ Private aided schools were closed or merged due to uneconomic strength; (ii) Private Unaided schools were closed due to non-recognition/ less strength/ non-fulfilment of norms.

2.2.4.7 Data inconsistency

The dropout rates¹¹⁹ at Primary and Upper Primary levels for the years 2015-16 and 2016-17 furnished by the Commissioner of School Education were at variation from the figures furnished by the SPD of SSA as shown in **Table-2.15**.

Table-2.15

Year	Dropout as per SSA records		Dropout as per records of Commissioner of School Education	
	PS	UPS	PS	UPS
2015-16	6.72	14.75	9.08	14.95
2016-17	2.15	0.90	9.68	12.77

PS: Primary Schools, UPS: Upper Primary Schools

However, the PAB observed¹²⁰ that the dropout rate was 9.7 per cent in respect of Primary classes and 9.1 per cent for Upper Primary classes for the year 2016-17.

¹¹⁹ the percentage of students failing to complete a particular school

¹²⁰ from the data furnished by State Government

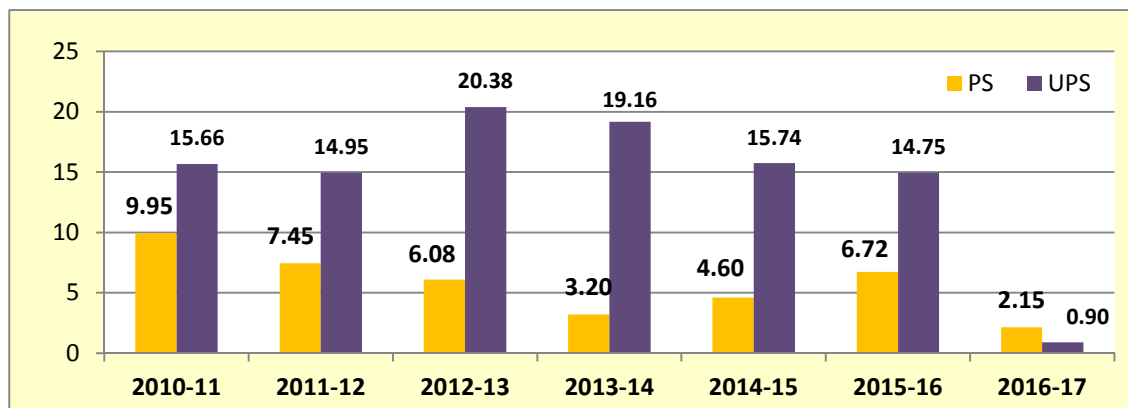
Further, there were inconsistencies of data between AWP&B (prepared by SSA) and U-DISE¹²¹ with regard to dropouts and 'Out of School Children'. The planning process follows from habitation/school to State level. The data inconsistencies had a risk of adverse impact on planning process to achieve the objective of the Act.

The SPD stated (October 2017) that action was being taken to obtain correct data by strengthening online child tracking mechanism which was under process.

2.2.4.8 Dropout rate of children

One of the objectives of the RTE Act is the retention of children in schools and reduction in the dropout rate. Towards this end, the State Implementing Society (SSA) was required to frame an action plan and create an institutional mechanism to collect and analyse data of dropped out children. The analysis facilitates management to suggest remedial measures to keep the dropout problem under check. The implementing agencies were to follow the action plan framed by the SSA. The **Chart-2.6** depicts the dropout rate of children in Primary and Upper Primary schools in the State during 2010-17.

Chart-2.6: Dropout rate



Source: SSA

As seen from the above chart, the dropout rate decreased during 2010-17 in both Primary and Upper Primary classes. In the test-checked districts, the dropout rate ranged from 0.07 to 1.80 *per cent* in Primary classes; and ranged from 0.13 to 4.12 *per cent* in Upper Primary classes during 2010-17. Dropout rate at State level was more than the dropout rate at National level during 2011-14 (except 2013-14 in respect of Primary classes) as detailed in **Table-2.16**:

Table-2.16

Year	National dropout rate		State dropout rate	
	Primary	Upper Primary	Primary	Upper Primary
2011-12	5.62	2.65	7.45	14.95
2012-13	4.67	3.13	6.08	20.38
2013-14	4.34	3.77	3.20	19.16

Source: Education Statistics at a glance 2016 and information furnished by SSA

Note: National average is available for three years only.

¹²¹ prepared by CSE and SSA

In test-checked schools, the dropout rate was between 2.47 *per cent* and 10.40 *per cent* in primary classes during 2010-17. It ranged between 0.82 *per cent* and 8.23 *per cent* in Upper Primary classes during the period. The details of dropout rates in respect of test-checked schools are in **Appendix-2.16**. Audit observed the following:

- Government had not obtained student-wise data to arrive at the dropout figures. Instead, Government deducted the enrolment in 5th class in current year from the enrolment in 1st class of the same batch¹²². This process would not take into account the new admissions that might have taken place in the 2nd, 3rd and 4th classes. Similarly, Government deducted enrolment in 8th class during current year from the enrolment figures of 1st class eight years back to arrive at the dropout rate in Upper Primary level. As a result, the reliability and accuracy of figures arrived at on this count remained doubtful.
- The HMs of test-checked schools stated that there were no dropouts. Audit, however, noticed that the schools did not have details of students joining other schools after leaving the school. As such, Audit could not ensure that the students who left the school were not dropouts.
- State Government had expressed (2010-11) its commitment to develop child tracking system to monitor retention and academic progress of children. However, the system was yet to be in place. In the absence of child tracking system, Audit could not ascertain the correctness of 'Out of School Children' as well as 'never enrolled children'.

Thus, there is a need to ensure child tracking system through Aadhaar or any other suitable mechanism.

The SPD, SSA stated (October 2017) that online child tracking system was in progress and there would not be inconsistencies of data in future.

2.2.4.9 Out of School Children

Audit noticed that the Department did not have correct/ accurate data of 'Out of School Children' in any year during 2010-17. During 2011-12, the PAB had commented that as against 12 lakh 'Out of School Children' in the State, the State Government had reported only 1.15 lakh. The PAB attributed it to gross under-estimation of 'Out of School Children'. The PAB instructed the State Government to take up this issue seriously to ensure credibility of various data sets.

Audit also noticed variations in respect of 'Out of School Children' among the figures of U-DISE¹²³, AWP&B¹²⁴ and the data of 'Out of School Children' stated to have been collected by SSA through survey. The details are as given in **Table-2.17**:

¹²² five years *ante* to arrive at the dropout figures at Primary level

¹²³ against projected Population

¹²⁴ data furnished by State Government to GoI

Table-2.17

Year	As per U-DISE	As per AWP&B	As per Department Survey
2010-11	421319	127093	274473
2011-12	239008	115810	309273
2012-13	260680	301271	301271
2013-14	859312	161538	64671
2014-15	986256	67805	63843
2015-16	1248252	13294	50441
2016-17	1215778	46744	46744

Source: U-DISE, AWP&B and SSA

PAB had instructed (2011-12) the State Government to undertake triangulation of data on different educational indicators¹²⁵. Government, however, had not taken up the triangulation of data, which resulted in variation of data among various data sets.

This also indicated absence of child tracking mechanism. As such, the Department was not in a position to collect accurate data of ‘Out of School Children’.

In the Exit conference, the Department stated (October 2017) that proper care would be taken to avoid inconsistencies of data in future.

2.2.4.10 Special Training by SMCs

Rule 4 of RTE Rules, 2010 lays down that children requiring special training should be identified and trained for induction in the class appropriate to the age. During test-check of records of selected schools Audit observed that 137 (out of 8,835) students were enrolled¹²⁶ in classes lower than age appropriate. This indicated that the SMCs had not arranged any training to these children for their successful integration with the rest of the class, academically and emotionally.

In the Exit conference, the Department accepted (October 2017) that the SMCs had not arranged any training for these students.

2.2.4.11 Pupil-Teacher Ratio

As per Section 25 (1) of the Act, the Government and the local authority should ensure that the Pupil-Teacher Ratio (PTR), as specified in the Schedule, is maintained in each school. The Act stipulated the norms based on the student strength in Primary schools and based on the subjects to be taught in Upper Primary schools. The norms of Pupil-Teacher Ratio are given in *Appendix-2.17*.

As per PAB’s observation (April 2017) there were 12,955 vacancies in teacher posts for the year 2016-17 and rationalisation of teachers based on strength of the students was needed. As seen from the minutes of meetings of the PAB for 2016-17, there were 7,360 Primary and 114 Upper Primary single teacher schools in the State as of March 2017.

¹²⁵ such as Gross Enrolment Ratio, Net Enrolment Ratio, Dropout rate and Transition rate

¹²⁶ in 10 out of 90 test-checked schools

Audit also noticed that there were no teachers in 1,014 Primary schools and 37 Upper Primary schools during 2016-17. In these schools, services of teachers from neighbouring schools/ Vidya Volunteers were utilised. Further, there were 19 per cent Upper Primary schools with adverse PTR.

Audit observed shortage of teachers in 18 (2016-17) to 34 (2011-12) test-checked schools¹²⁷ during 2010-17. Audit also observed that against 59 to 113 teachers required each year during 2010-17, there were only 30 to 71 teachers in these schools.

Out of the 90 test-checked schools, there were Upper Primary sections in 25 schools. Of these 25 schools, Audit noticed shortage of teachers in eight to ten schools in each year during 2011-17. Shortage of teachers (32 to 40 per cent) was mainly in Mathematics, Science and Social Studies subjects. This had affected the performance of the children as commented in Para 2.2.7.1 *infra*.

The SPD, SSA stated (October 2017) that they had constituted a committee to consolidate the position in all Primary and Upper Primary schools during the ensuing summer vacation and Commissioner of School Education had taken up the process of rationalisation.

2.2.4.12 Teachers deployed on duties other than teaching

As per Rule 25(2)(i) read with Rule 27 of RTE Act, 2009, no teacher should be deployed for any non-educational¹²⁸ purpose. Audit noticed that 65 teachers (14 in the test-checked districts) were (August 2016) on deputation to the posts not related to teaching.

The Commissioner stated that Government had issued¹²⁹ (July 2016) instructions to all the District Collectors and to the District Educational Officers to withdraw all the teachers so deputed. However, the District officers were yet to take action in this regard.

2.2.4.13 Children with Special Needs

The following Table depicts the details of Children with Special Needs (CwSN) enrolled during 2012-17 and expenditure incurred on them.

Table-2.18

Year	No. of CwSN enrolled	Approved by Government		Releases		Actual coverage	
		No. of Students	Amount	No. of Students	Amount	No. of Students	Expenditure (Percentage)
2012-13	181729	184343	5530.29	184343	5530.29	175385	3880.00 (70)
2013-14	176193	215005	2076.85	215005	2076.85	174750	1644.35 (79)
2014-15	93512	91812	1560.80	91812	1560.80	79656	1169.37 (75)
2015-16	80997	100252	2015.04	100252	2015.04	72599	1224.96 (61)
2016-17	68007	73584	2207.52	73584	1349.49	64779	1108.69 (82)
Total	600438	664996	13390.50	664996	12532.47	567169	9027.37(72)

Source: SPD, SSA; Figures in respect of the years 2012-14 relate to composite State of Andhra Pradesh

¹²⁷ out of 74 test-checked Primary Sections

¹²⁸ Except for the decennial population census, disaster relief duties or duties related to elections to the local authority or State Legislature or Parliament as the case may be

¹²⁹ as per the directions (July 2016) of the Supreme Court of India

The actual number of CwSN benefited was less to the extent of 0.33 lakh¹³⁰ than the enrolment (2012-17) and the utilisation of funds ranged from 61 to 82 *per cent* during 2012-17.

The SPD, SSA stated (June/October 2017) that (i) shortage in coverage was due to migration of parents, children going to NGOs; (ii) Department had not utilised the funds fully due to delay in according administrative approval by District Collectors and (iii) release of funds by GoI/ State Government at the fag end of financial year.

The reply was not acceptable as the shortfall/ delay in utilisation of funds deprived such students of the benefits envisaged for the CwSN.

2.2.4.14 Availability of Infrastructure

As per Section 19 (1) of the Act, no school should be established, or recognised, under Section 18 of the Act, unless it fulfills the norms and standards specified in Serial No.2 of Schedule. The **Table-2.19** depicts the status of availability of facilities in the schools of the State against stipulated norms:

Table-2.19

S No	Facility to be available	Shortage of Infrastructure
1	All-weather building	Out of 38,436 Primary and Upper Primary schools in the State, 448 schools did not have all-weather buildings. Of these, 95 schools were in rented buildings. Further, 136 school buildings were in dilapidated condition.
2	At least one classroom should be available for every teacher besides one office-cum-store-cum-Head teacher's room.	Out of 38,436 schools, 8,125 schools (21 <i>per cent</i>) did not have at least one classroom for each teacher. Head Master's room was not available in 34,205 schools (89 <i>per cent</i>). 6,113 (16 <i>per cent</i>) schools were running with single classroom.
3	Barrier-free access (Ramps)	Out of 38,436 schools, 27,350 schools (71 <i>per cent</i>) did not have Barrier-free access.
4	Separate toilets for boys and girls.	Out of 33,320 Primary schools in the State, Girls' toilets were available in 32,591 schools (98 <i>per cent</i>). Boys' toilets were available in 28,692 schools (86 <i>per cent</i>). Out of 5,116 Upper Primary schools in the State, Girls' toilets were available in 5,070 schools (99 <i>per cent</i>). Boys' toilets were available in 4,785 schools (94 <i>per cent</i>).
5	Safe and adequate drinking water facility to all children.	Safe Drinking Water facility was not available in 2,430 (six <i>per cent</i>) out of 38,436 schools.

Source: SPD, SSA

¹³⁰ 6,00,438 (enrolled) minus 5,67,169 (actual coverage) for the period 2012-17

The Department attributed (October 2017) the shortage of infrastructure to non-sanction of funds proposed by the State Government and non-release of funds approved by GoI fully.

2.2.4.15 Construction of School buildings/ Other infrastructure

During the period 2010-17, GoI had released capital grant of ₹67.49 crore towards construction of 390 school buildings. Of these, the Department had not yet completed 30¹³¹ (Visakhapatnam: 25; East Godavari: 5) buildings. The buildings remained incomplete despite availability of funds even after lapse of one to five years. The SPD, SSA attributed (July 2017) the delay to hilly and inaccessible locations and site clearance problems.

The reply of the Department was not acceptable as it was to conduct a feasibility study for identification of suitable site before taking up construction of schools.

Besides construction of school buildings, 99,516 civil works¹³² costing ₹ 2,918.83 crore were sanctioned during 2011-17. Of these, 2,857 works were in progress and 2033 works did not start (May 2017). Out of 31,562 works sanctioned during 2011-17 in the three test-checked districts, 2,615¹³³ (8 per cent) works were in progress and 421¹³⁴ works (1 per cent) did not even start.

The SPD, SSA replied (October 2017) that the responsibility of completion of works lies with the SMCs. The SPD attributed lack of knowledge, assigning of low priority and paucity/ retrieval of funds coupled with site disputes to slow progress of works.

Thus, the students were deprived of the intended objectives of providing quality infrastructure and learning environment due to the sluggish progress of works.

2.2.4.16 Non-accountal of works

Out of ₹ 10.12 crore released (2011-12) by the SPD for construction of 191 Additional Classrooms (ACRs) in 140 Schools, the DPO, Srikakulam released ₹ 8.73 crore to the executing agencies. The executing agencies, however, did not complete the works and had not rendered accounts to SSA. Further, Audit noticed that the above status of works was not reflected in the Progress Reports submitted by the DPO to SPD. The Engineering wing of the SSA did not maintain Asset Register. Thus, the Progress Reports relating to the works would not reflect factual position.

The DPO, SSA, Srikakulam stated (September 2017) that status of works and UCs were yet to be received from the executive agencies concerned.

2.2.4.17 Supply of Uniforms

Rule 6 of RTE Rules stipulated that Government should ensure provision of free text books, uniforms, writing material to every child studying 1st to 8th classes in

¹³¹ 2011-12: 3, 2012-13: 7, 2014-15: 6 and 2015-16: 14

¹³² additional classrooms, toilets, compound walls, drinking water facilities, electrification, etc.

¹³³ Anantapuramu: 510, East Godavari: 2047 and Srikakulam: 58

¹³⁴ Anantapuramu: 172, East Godavari: 224 and Srikakulam: 25

Government, local bodies, aided and specified category schools. Further, uniforms were to be supplied to the students during June-August of the Academic year as per Government orders. However, Government had not supplied school uniforms to 19,952 (37 *per cent*) and text books to 3,657 (seven *per cent*) out of 54,494 students in the test-checked schools during 2010-17.

Further, the authorities supplied uniforms during the months of December to April in the test-checked districts and in the case of 14,321 students (2010-13) uniforms were supplied in the next academic year. The DPOs of SSA in the test-checked districts stated that delay in supply of uniforms was due to delays in supply of cloth, stitching and distribution of uniforms.

The headmasters of schools did not mention the date of distribution of text books to students. Hence, Audit could not assess the actual delay in supply of text books.

Supply of uniforms at fag end of academic year or during next academic year indicated non-adherence to Government instructions. The delay/non-supply of text books would have direct impact on the performance of students. It also deprived the intended benefits to the students.

In the Exit conference, the Department accepted the delay in supply of uniforms and stated that efforts would be made to ensure timely supply.

2.2.5 Financial management

As per Section 7 of the RTE Act, GoI and State Government shall have concurrent responsibility of providing funds for carrying out the provisions of the Act. The GoI shall provide to the State Government, as grants-in-aid of revenues, such percentage of expenditure as it may determine, from time to time, in consultation with the State Government. The State Government shall, taking into consideration the sums provided by the GoI, be responsible to provide funds for implementation of the provisions of the Act.

As per the financial norms, the sharing pattern of programme cost between the GoI and the State was 65:35 up to 2014-15 and in the ratio of 60:40 from 2015-16 onwards. The GoI released its share of funds direct to the State SSA up to 2014-15. From 2015-16, GoI had been releasing funds to the State Government for onward releases to the State SSA. State Government releases its share of funds and the GoI share of funds received by it to the State SSA. The SPD of SSA in turn releases the funds to the DPOs at district level. The POs release the funds to Government schools/ Government aided schools or any other schools identified by the State in the form of grants-in-aid.

Table-2.20 shows the details of budget allocations, funds released and expenditure of SSA including RTE:

Table-2.20

Year	PAB Approved	Releases			Percentage of Releases against approved budget	Expenditure	Percentage of Expenditure	
		GoI	State*	Total			Approved Budget	Released amount
2010-11	1736.14	810.00	635.09	1445.09	83	1107.21	64	77
2011-12	4563.59	1835.52	1478.96	3314.48	73	2920.99	64	88
2012-13	4745.86	1360.49	933.23	2293.72	48	3144.30	66	137
2013-14	3088.48	1797.15	1151.61	2948.76	95	2910.86	94	99
2014-15	2644.98	1545.67	941.93	2487.60	94	1868.14	71	75
2015-16	2116.06	668.11	466.50	1134.61	54	1610.52	76	142
2016-17	2637.00	633.02	422.01	1055.03	40	1221.15	46	116
Total	21532.11	8649.96	6029.33	14679.29		14783.16		

Source: SPD, SSA

Note: Figures for the years 2010-11 to 2013-14 pertains to composite State of Andhra Pradesh

* Includes 13th Finance Commission grant of ₹349 crore (2011-12), ₹188 crore (2012-13), ₹198 crore (2013-14) and ₹120.72 crore (2014-15)

Out of total expenditure of ₹ 14,783.16 crore incurred during 2010-17, the major portion of ₹ 9,953.31 crore (67 per cent) was on salaries (₹ 4,744.16 crore), Kasturba Gandhi Balika Vidyalayas (₹ 1,696 crore) and civil works (₹ 3,513.15 crore). **Only ₹ 4,829.85 crore (33 per cent) was utilised on other interventions including 'Learning Enhancement Programme' and 'Research, Evaluation, Monitoring and Supervision'.**

2.2.5.1 Release of funds by GoI

The GoI was to release its share of funds in two instalments (i.e., in the months of April and September) in a year. The 1st instalment was to be released in two tranches. GoI was to release the first tranche as *ad-hoc* instalment in April-May to the tune of 25 to 30 per cent of the expenditure made in the previous financial year in order to maintain steady fund flow. GoI was to release the balance of the first instalment as second tranche in the months of June-July subject to release of State's matching share and submission of provisional utilisation certificate for the funds released in the previous year. GoI was to release the second instalment in the months of September-October subject to certain conditions¹³⁵ including submission of provisional utilisation certificate for the current year.

However, Audit observed that GoI released funds up to February/ March in each financial year except in 2011-12 and 2015-16¹³⁶.

Audit noticed that the GoI had delayed release of subsequent instalments due to delayed submission of expenditure particulars and Utilisation Certificates (UCs) by the State Government.

2.2.5.2 Release of funds by State Government

As per Para No. 91.2 of Chapter-V of SSA Financial Manual, the State would contribute its agreed ratio of the programme cost within 30 days of the receipt of the GoI share.

¹³⁵ based on the pace of expenditure; release of State share commensurate to GoI releases, audited accounts, adjustment of outstanding advances, etc.

¹³⁶ where second instalment was released in December

Further, as per Para No. 91.3, the SSA will release the funds to districts within 15 days of its receipt from GoI and State Government.

Audit noticed that State Government had belatedly released its share of funds during 2010-16. The delays ranged from 15 to 201 days during 2010-16. In two instances¹³⁷, State Government had released its share of funds during the next financial year. Further, during 2015-16 and 2016-17, State Government had not released the GoI share of funds to the SSA immediately on receipt of funds. Audit also noticed that there were delays ranging from 45 to 82 days in release of GoI share by the State Government to SSA during these two years.

The SPD, SSA attributed (October 2017) the delays to administrative reasons. The SPD also stated that State Government had fully released its share as of date. However, the delayed release of funds would impede implementation of interventions during respective years, as belated releases would not meet the need of the hour.

2.2.5.3 Short release of funds

GoI had not released its share of funds fully in accordance with the funding pattern and the budget approved by the PAB. Against ₹ 13,758.22 crore to be released by GoI as its share, GoI had released only ₹ 8,649.96 crore during 2010-17, short release of funds being 37 per cent. Similarly, against ₹ 7,773.89 crore of State share to be released, State Government had released only ₹6,029.33 crore. The short release of funds was 22 per cent during the said period. However, State Government had released its share of funds in proportion to GoI releases.

SPD, SSA replied (October 2017) that GoI had not released its share fully and hence State Government released its share based on the releases made by GoI.

The reply of the SPD was not convincing as GoI had not released funds fully due to slow progress of expenditure and delayed submission of UCs.

2.2.5.4 Diversion of funds

Every year, the PAB allocated funds intervention-wise¹³⁸ under the heads of SSA, National Programme for Education of Girls at Elementary Level (NPEGEL) and Kasturba Gandhi Balika Vidhyalaya (KGBV) components. However, budget was released in lump sum and not intervention-wise under the above heads. NPEGEL was discontinued from 2013-14 and since then funds were released under remaining two heads (SSA and KGBV). Audit observed that

- The SPD incurred an expenditure of ₹ 9.51 crore¹³⁹ for NPEGEL during 2013-14 and 2014-15. The expenditure was incurred by diverting funds from SSA Component, although there were no allocations for NPEGEL.

¹³⁷ ₹50 crore pertaining to the financial year 2012-13 were released to SSA in August 2013 and ₹361.67 crore pertaining to financial year 2014-15 were released to SSA in August 2015

¹³⁸ there are 24 interventions under SSA

¹³⁹ 2013-14: ₹ 8.96 crore, 2014-15: ₹ 0.55 crore

- During 2010-11 and 2015-16, the SPD incurred an amount of ₹ 59.71 crore on nine interventions¹⁴⁰ of RTE for which there was no provision of funds. In respect of eight interventions¹⁴¹ the expenditure incurred was ₹ 179.50 crore in excess of the provision made by the PAB.
- In test-checked districts, the DPOs incurred expenditure of ₹ 40.62 crore without provision / in excess of approved outlay in respect of eight interventions.

The SPD stated (October 2017) that the expenditure was incurred from the funds available with it based on priority. The reply was not convincing, as Financial Manual of SSA did not permit diversion of funds from one intervention to another. Further, GoI had not approved the expenditure.

2.2.5.5 Excess provision of Funds

The Department had made budget provision of ₹ 27.83 crore under 13 interventions¹⁴² during 2010-17. Audit noticed that the test-checked districts, however, had not incurred any expenditure under these interventions. Further, against the provision of ₹1,930.17 crore under 23 interventions during this period, the DPOs of test-checked districts had spent only an amount of ₹ 353.04 crore (18 *per cent*). The SPD/DPOs in the test-checked districts stated (June-July/ October 2017) that they had made the provision in anticipation of expenditure under those interventions. They also stated that the funds could not be utilised due to certain administrative reasons.

The reply was not satisfactory as nil/ meagre expenditure on some of above interventions indicated lack of need analysis in planning and allocation of funds. Further, the nil/ less expenditure affected some of critical interventions such as provision of infrastructure facilities, supply of uniforms and SMC trainings.

2.2.5.6 Advances pending adjustment

Audit observed that contrary to stipulations of the Para 88.2 of Manual on Financial Management and Procurement, the Department diverted funds of ₹ 22.87 crore¹⁴³ to other Departments/ officers¹⁴⁴ not pertaining to the interventions of SSA (as of May 2017). However, SPD, SSA replied that the amounts were advanced on reimbursement basis and action would be taken to get the amounts back.

¹⁴⁰ (i) Model Cluster Schools, (ii) Uniforms, (iii) Teaching Learning Equipment, (iv) School Libraries, (v) Innovative Activity, (vi) School Grant, (vii) Computer Aided Education, (viii) Furniture Grant and (ix) Transport and Escort facilities

¹⁴¹ (i) Uniforms, (ii) Project Management, (iii) Civil Works, (iv) CwSN, (v) Research and Evaluation, (vi) Maintenance Grant, (vii) Innovative Head and (viii) Teachers Training

¹⁴² (i) Minorities intervention, (ii) Additional teachers against PTR, (iii) Uniforms, (iv) School libraries, (v) Computer Education in UPS, (vi) Innovation head, (vii) Intervention for SC & ST Children, (viii) Trainings, (ix) Intervention for girls' education, (x) SMC/PRI trainings, (xi) Intervention for Urban deprived children, (xii) Residential special category children and (xiii) Transport Escort facility

¹⁴³ District Educational Officers: ₹1.90 crore, Deputy Educational Officers: ₹ 0.33 crore, Police Department: ₹ 0.10 crore, Bal Bhavan, Director/Open Schools, etc.: ₹0.67 crore, NGOs: ₹ 0.50 crore and PDs, DRDAs: ₹19.37 crore

¹⁴⁴ for transportation of Nationalised text books (DEOs/Dy.EOs), transportation of VIPs (Police Department), construction of toilets in Junior colleges, construction of boundary wall in High School, supply of Chulhas under Mid-day-meal scheme, maintenance of toilets by SERP, etc.

Audit further observed that the Department had not received (as of May 2017) Utilisation Certificates (UC) in respect of advances of ₹ 123.47 crore¹⁴⁵. This amount pertained to advances given to officials such as DPOs and MEOs, for implementation of SSA interventions. However, year-wise details of advances were not available with SSA.

SPD, SSA replied (June 2017) that due to their best efforts, pending advances had reduced compared to previous years and he would take effective action to settle the advances.

The reply of SPD, SSA was not convincing as huge amount of advances were given for purposes not related to the scheme and were pending without adjustment. The advances pending adjustment would adversely affect the implementation of scheme interventions.

2.2.5.7 Appointment of Chartered Accountants

As per the procedure laid down in the Manual on Financial Management and Procurement, the Department is to appoint Chartered Accountants (CAs) from the list empanelled by the CAG of India. The CAs are required to conduct audit of accounts of the society and to submit the annual audit report to the Government. A Selection committee¹⁴⁶ is to select the CA firm and the Executive Council of SSA has to approve it. The tenure of selected CA firm would be initially for a period of one year. Extension of tenure would be on annual basis for a maximum of further two years.

The Department constituted a Selection Committee during 2010-11. Audit, however, observed that the Principal Secretary (School Education) approved the appointment of CAs without committee's involvement from 2011-12. Audit also noticed¹⁴⁷ that the Department continued one CA firm for four years¹⁴⁸ for preparation of annual accounts of State Project Office and for the District Project Offices. This was in violation of Para No. 106.9 of Financial Manual of SSA.

In Exit conference, the Department stated (October 2017) that action would be taken as per codal provisions in appointment and continuation of Chartered Accountants.

2.2.6 Management, Monitoring and Evaluation

Monitoring the implementation of the Act is an important and integral component of the whole process. Through continuous and effective monitoring, the Department locates the non-performing areas in the process of execution of a plan and identifies the causes. This facilitates the management to take timely remedial measures to keep the execution on course. Audit observed the following:

¹⁴⁵ POs of Srikakulam: ₹6.22 crore, Vizianagaram: ₹7.14 crore, Visakhapatnam: ₹13.98 crore, East Godavari: ₹6.91 crore, West Godavari: ₹9.25 crore, Krishna: ₹19.72 crore, Guntur: ₹1.61 crore, Prakasam: ₹1.42 crore, Nellore: ₹6.92 crore, Chittoor: ₹8.76 crore, Kadapa: ₹4.74 crore, Anantapuramu: ₹10.21 crore, Kurnool: ₹11.45 crore; MEOs: ₹7.43 crore, MPDOs: ₹0.74 crore, POs ITDA: ₹6.20 crore, Principal DIET: ₹0.13 crore, EEs/PR: ₹0.57 crore and Electricity Department: ₹0.07 crore

¹⁴⁶ consisting of three members including Chief Financial Officer of SSA

¹⁴⁷ during scrutiny of records of the State Project Director

¹⁴⁸ from 2012-13 to 2015-16

2.2.6.1 State Advisory Council

Section 34 of the Act read with Rule 28 of RTE Rules, 2010 envisages constitution of a State Advisory Council (SAC)¹⁴⁹ chaired by the Minister for School Education to advise the State Government on implementation of the provisions of the Act in an effective manner. The SAC has to meet once in every three months. Audit observed that the Government had constituted the SAC only in February 2014, i.e., after four years of implementation of the Rules/ Act. Further, the Committee had not conducted any meetings as of July 2017.

The Department, in the Exit conference, stated (October 2017) that the meetings could not be convened due to pre-occupation of council members with other issues.

Regular meetings of the SAC chaired by the Minister for School Education could have identified the shortcomings in implementation of the Act and suggested measures for addressing them.

2.2.6.2 Status of inspections

Audit scrutiny of records in the three test-checked districts showed shortfall in conduct of inspections by the Educational Officers during 2010-17. ***The shortfall in inspections in respect of DEOs, Deputy Educational Officers, MEOs ranged from 21 to 62 per cent, 39 to 54 per cent and 45 to 58 per cent respectively*** (details are given in ***Appendix-2.18***).

Audit noticed that the authorities did not conduct inspections in accordance with the targets fixed. ***Audit also noticed that the DEOs and Deputy Educational Officers did not visit any of the 90 test-checked schools.*** Only MEOs conducted inspections. During Exit conference the SPD attributed (June 2017) the shortage of inspections to shortage of staff.

2.2.6.3 Recognition of Schools

As per Section 18(1) of the Act, obtaining a certificate of recognition from the appropriate Authority is a prerequisite for establishment of school. Audit, however, noticed that 557 un-aided/ private schools were functioning without recognition as of March 2017. In the absence of recognition, the norms¹⁵⁰ prescribed in the schedule of RTE Act (Section 19 and 25) along with quality of education could not be ensured.

The Commissioner of School Education had not offered any comments.

2.2.6.4 Implementation of Section 12(1)(c) of the Act

As per section 12(1)(c) of the Act, schools have to allocate 25 per cent of the seats to the children belonging to disadvantaged and weaker sections in prescribed percentage for each category. Un-aided schools function without receiving any kind of aid or grants from the Government or local authority. The Act envisages that these schools

¹⁴⁹ Consists of 15 members including Minister-in-charge of the Department, Members of Council appointed by Government having expertise in elementary education, four members from SCs, STs and OBCs, etc.

¹⁵⁰ viz., infrastructure, qualified teachers, PTR, teaching learning material, etc.

should admit children¹⁵¹ in 1st class to the extent of at least 25 *per cent* of the strength of that class. The schools have to provide free and compulsory education till its completion. Government also issued orders (July 2010) prescribing reservation of seats and quantum of fee to be collected. Government was to reimburse fee to the schools in respect of the reserved seats.

Scrutiny of records revealed that Managements of Un-aided private schools had not made any reservations for children belonging to weaker sections and disadvantaged groups. As such, Government did not incur any amount on this account during 2010-17. Thus, students belonging to the disadvantaged and weaker sections in the State, though eligible for free education under Section 12(1)(c) were deprived of the intended benefits envisaged in the Act.

The managements of private schools in the State were showing stiff resistance on implementation of Section 12(1)(c) under RTE Act. State Government felt that by implementing Section 12(1)(c), the enrolment in government/aided schools would decline, teachers recruited could not be put to optimum use and reimbursement would be huge burden on the State exchequer. Keeping in view the above, State Government addressed (March 2016) GoI expressing its inability to implement this provision of the Act. The Government also requested to consider dropping of Section 12(1)(c) by amending the Act through a consultative process.

The provision should not be seen in isolation. The provision was to be seen as a necessary response to a society that needs greater social inclusion involving Government, private schools and civil society.

2.2.7 Tracking of Sustainable Development Goal indicators

State Government had adopted Sustainable Development Goal (SDG) indicators¹⁵² in 2015. Goal 4 (Para 4.1) of SDG indicators stipulates to ensure all children to complete free, equitable and quality education¹⁵³ leading to relevant and effective learning. The Government is required to achieve the targets by 2030. Audit observed that:

2.2.7.1 Performance of Children

The SDG targeted achieving the minimum proficiency level in reading and mathematics by the children at the end of Primary and lower secondary level as prescribed in the Indicators of SDG (Para 4.1.1). PAB, however, observed (February 2017) that the percentage of students of 5th class securing marks more than 50 *per cent* in Mathematics and languages had declined to 33 *per cent*. ***In 8th class, only seven per cent of students could secure marks more than 50 per cent in Mathematics/ Science subjects.*** This was due to deficiencies in teaching and learning material, implementation of revised curriculum as discussed in the following paragraphs. PAB advised the State Government to improve learning outcomes.

¹⁵¹ weaker section and disadvantaged group in the neighbourhood

¹⁵² suggested by United Nations

¹⁵³ both primary and secondary

Audit further noticed from the AWP&Bs (for the years 2013-17) that 36 to 53 *per cent* students of Primary sections had secured below 50 *per cent* marks. In respect of Upper Primary sections, the percentage ranged from 47 to 56 *per cent*.

2.2.7.2 Teaching and learning

Universal access¹⁵⁴ is one of the SDG indicators (Para 4.1.1). The Department's main strategy for this aspect was to equip the child with minimum reading and writing abilities, especially learning Mathematics and Science. For this purpose, teaching and learning material plays an important role.

The Department identified certain gaps¹⁵⁵ in teaching and learning in previous years, i.e., 2013-16. However, Audit observed that the same gaps were still persisting even as of 2016-17 (details are given in **Appendix-2.19 A**).

The Department had incurred an expenditure of ₹ 81.07 lakh during 2013-16 on Learning Enhancement Programme at State level without any provision. In the remaining years, the expenditure ranged from 25 *per cent* (2011-12) to 51 *per cent* (2012-13) of budget provisions. The three test-checked districts had not received funds during 2013-16 and the DPOs failed to utilise the funds fully during the remaining years.

Audit noticed¹⁵⁶ that among the students who had completed their primary education, only 38 *per cent* had minimum competencies in Mathematics. **Only 57 *per cent* could read 2nd class text book**. SSA had been proposing actionable points every year in their AWP&Bs¹⁵⁷ submitted to MHRD. However, SSA did not resolve the gaps and the same continued in AWP&B 2017-18.

2.2.7.3 Revision of curriculum

The State Government¹⁵⁸ had taken up curriculum reforms in 2011. Audit noticed from the AWP&Bs for 2015-16 and 2016-17 that the implementation of revised curriculum was poor. The deficiencies noticed by the Department were still persisting (details are given in **Appendix-2.19 B**). The revision of curriculum was to be done keeping in view the latest Technologies.

Government did not initiate corrective steps for improving the quality of the above interventions. The target set (2015-2030) in “Sustainable Development Goal indicators” by United Nations may not be achieved if the same trend continues.

¹⁵⁴ the ability of all people to have equal opportunity in education, regardless of their social class, gender, ethnicity, background or physical and mental disabilities

¹⁵⁵ Subject wise and class wise orientation to teachers, training and workshops for teachers to assess the students, absence of material for constructive/ innovative activities to teachers for effective use in classroom transition, lack of motivation to read and discuss in classroom library, etc.

¹⁵⁶ from the results of State level achievement survey and Annual Status of Education Report (ASER) 2014

¹⁵⁷ 2015-16 and 2016-17

¹⁵⁸ State Council of Educational Research and Training

The SPD replied (October 2017) that the Department was taking steps to improve the learning abilities of students in a phased manner by introducing various programmes¹⁵⁹.

2.2.8 Conclusion

Sarva Shiksha Abhiyan (SSA) had not conducted Comprehensive household survey of children in the age group of 6-14 years. Government had not designed GIS mapping to identify the availability of schools in the neighbourhood of habitations as stipulated. School mapping as prescribed in the RTE Act was not yet completed even after seven years.

Government had not notified the hilly and difficult terrain areas in the State. Government could not complete the child tracking system which was committed in 2010-11 even after seven years. State was yet to achieve 100 *per cent* enrollment of children.

There was shortage of teachers at both Primary and Upper Primary levels. The intended Pupil-Teacher ratio was not maintained. Infrastructure deficiencies continued due to ineffective utilisation of funds by SMCs.

GoI and State Government delayed release of funds. Huge amount of advances were pending without adjustment. Scrutiny showed poor monitoring of implementation of the programme at district level. Reservation of seats for weaker sections and disadvantaged group children in Private schools was not implemented.

Department had not taken adequate steps to improve the learning levels and performance of students. Government was yet to achieve the objective of the Act to make the 'Right of Children to free and compulsory education' a right.

2.2.9 Recommendations

- Comprehensive household survey needs to be conducted every year before commencement of academic year for accurate data of children in the age group of 6-14 years and 'Out of School Children'.
- Integrated child tracking system should be evolved to ensure that every child in the age group of 6-14 years is in school.
- Adequate measures such as infrastructure creation, improvised teaching; and material for improvement of learning levels of students have to be put in place expeditiously.
- Monitoring mechanism needs to be strengthened to ensure effective implementation of programmes and improvement of quality of education.

Government accepted (October 2017) the recommendations of Audit and assured compliance.

¹⁵⁹ **Performance Management, Project Delivery and Monitoring** related to Public Programmes, Education, etc.; **Rishi Valley Methodology** inculcating respect for all forms of life to create an atmosphere of affection, order and freedom and free to ask fundamental questions, enquire and learn