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Report of the Comptroller and Auditor General of India on Performance Audit of National Rural Drinking Water Programme

Union Government (Civil)
Ministry of Drinking Water and Sanitation
Report No. 15 of 2018
(Performance Audit)

Report of the
Comptroller and Auditor General of India
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Performance Audit of
National Rural Drinking Water Programme

for the year ended March 2017

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Ministry of Drinking Water and Sanitation
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Preface

The Government of India launched the National Rural Drinking Water Programme (NRDWP) in April 2009 by modifying the Accelerated Rural Water Supply Programme (ARWSP) and subsuming earlier sub-missions/schemes. The NRDWP guidelines were further updated in 2013 with focus on piped water supply, increasing household tap connections and raising drinking water supply norms. The objectives of the Programme is to provide safe and adequate water for drinking, cooking and other domestic needs to every rural person on a sustainable basis.

A performance audit of the NRDWP was conducted to assess how far the objectives of the Programme were achieved. The performance audit covers the period from 2012 to 2017 and examines various aspects of the Programme such as planning, delivery mechanism, fund management, implementation including coverage of partially covered and quality affected habitations, water quality monitoring and surveillance.

This report has been prepared for submission to the President of India under Article 151 of the Constitution of India.

The audit has been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.

Executive Summary

Key Facts

About the Programme	• The National Rural Drinking Water Programme (NRDWP) was launched in April 2009 by modifying the Accelerated Rural Water Supply Programme (ARWSP) and subsuming earlier sub-missions/schemes. The objective of the Programme is to provide safe and adequate water for drinking, cooking and other domestic needs to every rural person on a sustainable basis.
Deliverables	**By 2017** • All rural habitations, government schools and *anganwadis* to have access to safe drinking water. • 50 *per cent* of rural population to be provided potable drinking water (55 lpcd[1]) by piped water supply. • 35 *per cent* of rural households to be provided household connections.
Programme Funds [2012-17]	• ₹ 89,956 crore (Central share ₹ 43,691 crore and State share ₹ 46,265 crore) provided for the Programme. • Expenditure incurred was ₹ 81,168 crore.
Achievement against Deliverables set for 2017	• Coverage of rural habitations increased by only 8 *per cent* at 40 lpcd and 5.5 *per cent* on the basis of 55 lpcd during 2012-17 despite the expenditure of ₹ 81,168 crore. • Only 44 *per cent* of rural habitations and 85 *per cent* of government schools and *anganwadis* provided access to safe drinking water. • Only 18 *per cent* of rural population provided potable drinking water (55 lpcd) by piped water supply. • Only 17 *per cent* of rural households provided household connections.

[1] Litre per capita per day

Key audit findings	**Planning and Fund Management** • Annual Action Plans of States lacked bottom-up approach. • ₹ 8,788 crore out of available funds of ₹ 89,956 crore (10 *per cent*) remained unutilized. • ₹ 359 crore of scheme funds diverted for ineligible purposes. • ₹ 304 crore blocked with State Water and Sanitation Mission and executing agencies. **Program Implementation** • Poor execution of works and weak contract management resulted in works remaining incomplete, abandoned or non-operational as well as unproductive expenditure on equipment with a financial implication of ₹ 2,212.44 crore. **Monitoring** • There was no mechanism for ensuring authentication and validation of data entered in Integrated Management Information System in several States leading to data inconsistency. • Overall monitoring and oversight framework of the Programme lacked effectiveness and there was inadequate community involvement.

Key findings in the Report

The National Rural Drinking Water Programme (NRDWP/Programme) was launched with the objective of providing adequate safe water for drinking, cooking and other domestic needs to every rural person on a sustainable basis. The 12th Plan aimed at providing all rural habitations, schools and *anganwadis* with safe drinking water by December 2017. It also envisaged that at least 50 *per cent* of the rural population will be provided piped water supply at 55 lpcd within the household premises or at a distance of not more than 100 meters from their households. NRDWP is being implemented in the States through its six components and through other focused schemes. During the 12th FYP period (2012-17), a total of ₹ 89,956 crore (Central share of ₹ 43,691 crore and State share of ₹ 46,265 crore) was provided for the Programme of which ₹ 81,168 crore was spent during this period.

The Programme failed to achieve the targets that were set for achievement by 2017 *viz.* (i) all rural habitations, Government schools and *anganwadis* to have access to safe drinking water, (ii) 50 *per cent* of rural population to be provided potable drinking water

(55 lpcd) by piped water supply and (iii) 35 *per cent* of rural households to be provided household connections. As of December 2017, only 44 *per cent* of rural habitations and 85 *per cent* of Government schools and anganwadis could be provided access to safe drinking water, only 18 *per cent* of rural population provided potable drinking water by piped water supply and only 17 *per cent* of rural households were provided household connections. The overall coverage of rural habitations increased only by eight *per cent* at 40 lpcd and 5.5 *per cent* at 55 lpcd after incurring expenditure of ₹ 81,168 crore during the period 2012-17.

Implementation of the Scheme was marked by lack of proper planning and funds management and delivery as well as ineffective execution of works that resulted in undue delays and expenditure that failed to yield the expected results or benefits. The total financial implication of the audit findings works out to ₹ 2,875 crore, which was a very significant 15 *per cent* of the expenditure of ₹ 19,151 crore, covered during our test check of various aspects of scheme management and implementation.

The NRDWP was an important element in Government of India's commitment to achieve the United Nations Sustainable Development Goal Number 6 which relates to ensuring availability and sustainable management of water and sanitation for all. The Ministry had informed (September 2017) that while its objective was to provide drinking water to every Indian household, it would require approximately ₹ 23,000 crore annually till 2030 (at present cost) to achieve this goal and given the present level of outlays, the SDG cannot be realized solely through NRDWP efforts.

Audit noted that while NRDWP may not be the sole effort required to achieve the SDG, it was nevertheless an important measure towards that end and shortfalls and deficiencies in its implementation including unfruitful expenditure would further impede and make difficult the achievement of the Goal.

(A) Planning and Delivery Mechanism

The planning and delivery framework established at the Centre and States deviated from the Programme guidelines. Twenty one States did not frame Water Security Plans and deficiencies were found in preparation and scrutiny of Annual Action Plans such as lack of stake holder and community participation, non-inclusion of minimum service level of water in schemes and absence of approval of State Level Scheme Sanctioning Committee for schemes included in the plans. The apex level National Drinking Water and Sanitation Council set up to co-ordinate and ensure convergence remained largely dormant. Agencies vital for planning and execution of the Programme such as State Water and Sanitation Mission, State Technical Agency, Source Finding Committee and

Block Resource Centres were either not set up or were not performing their assigned functions. These constraints both in terms of planning and delivery ultimately affected achievement of Programme goals and targets.

(B) Fund Management

NRDWP is implemented as a Centrally Sponsored Scheme with cost being shared between the Central and State Governments. Ministry's expectations that the States would be able to compensate for reduced Central allocation by increasing their own financial commitment to the scheme taking into account the increased devolution based on the recommendations of the 14th Finance Commission was belied. Thus, the overall availability of funds for the Programme declined during the period 2013-14 to 2016-17. However, even the reduced allocations of funds remained unutilised. There were delays of over 15 months in release of Central share to nodal/implementing agencies. There was also diversion of funds towards inadmissible items of expenditure and blocking of funds amounting to ₹ 662.61 crore with State Water and Sanitation Missions and work executing agencies.

(C) Programme Implementation

The Programme failed to achieve the targets that were to be achieved by end of 2017 as brought out above. This was attributable partly to deficiencies in implementation such as incomplete, abandoned and non-operational works, unproductive expenditure on equipment, non-functional sustainability structures and gaps in contract management that had a total financial implication of ₹ 2,212.44 crore.

Further, only five *per cent* of quality affected habitations had been provided with Community Water Purification Plants and there was slow progress in setting up such plants out of funds provided by NITI Aayog. Sustainability plans were either not prepared/implemented or not included in the Annual Action Plans. There was inadequate focus on surface water based schemes and a large number of schemes (98 *per cent*) including piped water schemes continued to be based on ground water resources. Operation and Maintenance plans were either not prepared in most of the States or had deficiencies leading to schemes becoming non-functional. As a result, incidence of slip-back habitations has persisted.

Lastly, lack of required number of labs at States/district/sub-divisional level resulted shortfall in prescribed quality tests of water sources and supply thereby compromising the objective of providing safe drinking water to the rural population.

(D) Monitoring and Evaluation

Data in the Integrated Management Information System (IMIS) of the Programme lacked consistency and accuracy due to insufficient authentication and validation controls. Expert teams for inspection, Vigilance and Monitoring Committees to monitor and review implementation of Programme were either not established or were not functioning in the planned manner. Social audit of the Programme to measure beneficiary level satisfaction was not conducted. Hence the overall monitoring and oversight framework lacked effectiveness and there was inadequate community involvement in this exercise.

Main Report

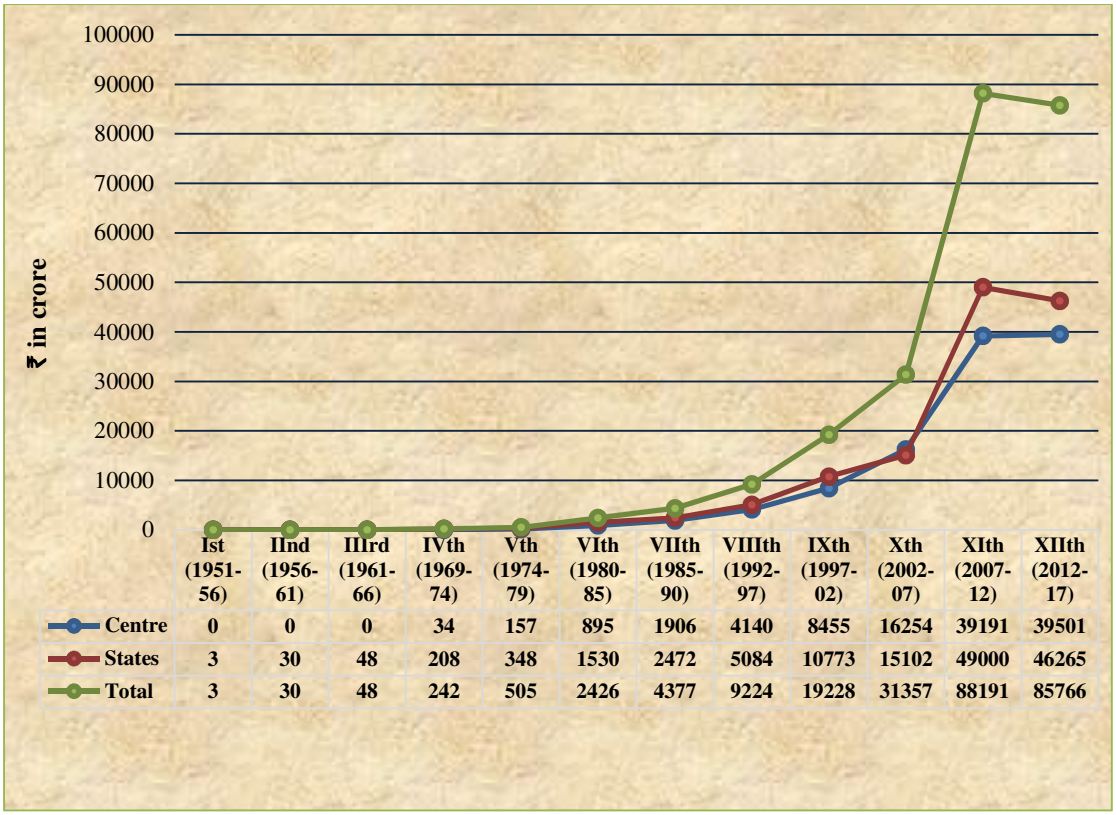
Chapter-I Programme Overview and Audit Approach

1.1 Introduction

Ever since independence, Government of India has undertaken various programmes to provide safe drinking water to the rural population. In 2009, Government of India launched the National Rural Drinking Water Programme (NRDWP/Programme) by modifying the earlier Accelerated Rural Water Supply Programme and subsuming various sub-missions, miscellaneous schemes and mainstreaming *Swajaldhara* principles.

The investments made by the Central and State Governments up to the 12th Five Year Plan on providing drinking water to the rural population is given in **Graph-1.1**:

Graph-1.1: Investment made during plan period



	Ist (1951-56)	IInd (1956-61)	IIIrd (1961-66)	IVth (1969-74)	Vth (1974-79)	VIth (1980-85)	VIIth (1985-90)	VIIIth (1992-97)	IXth (1997-02)	Xth (2002-07)	XIth (2007-12)	XIIth (2012-17)
Centre	0	0	0	34	157	895	1906	4140	8455	16254	39191	39501
States	3	30	48	208	348	1530	2472	5084	10773	15102	49000	46265
Total	3	30	48	242	505	2426	4377	9224	19228	31357	88191	85766

Source: Records of the Ministry

1.2 Programme Objectives

NRDWP was framed with the vision of providing safe and adequate drinking water in rural areas for all on a sustainable basis. The Programme had the following primary objectives:

a.	enable all households to have access to and use safe and adequate drinking water within reasonable distance;
b.	enable communities to monitor their drinking water sources;
c.	ensure that potability, reliability, sustainability, convenience, equity and consumers preference are the guiding principles while planning for a community based water supply system;
d.	provide drinking water facility, especially piped water supply, to G*ram Panchayats* that have achieved open defecation free status on priority basis;
e.	ensure all Government schools and *anganwadis* have access to safe drinking water;
f.	provide enabling support and environment for *Panchayati Raj* Institutions and local communities to manage their own drinking water sources and systems in their villages; and
g.	provide access to information through online reporting mechanism with information placed in public domain to ensure transparency and informed decision making.

1.3 Programme implementation strategy

In the 11th Five Year Plan (FYP), the basis for coverage under the rural water supply programme was shifted from habitations to households so as to ensure drinking water supply to all households in the community. In the 12th Plan, the emphasis was on piped water supply. The Working Group on Domestic Water and Sanitation in the Planning Commission had recommended the need to increase drinking water supply service level in rural areas from 40 lpcd[1] to 55[2] lpcd and to focus on piped water supply.

The Strategic Plan[3] (2011-2022) envisaged providing every rural person in the country access to 70 lpcd of safe drinking water within their household premises or at a horizontal or vertical distance of not more than 50 meters from their household without barriers of social or financial discrimination by 2022. It recognized that States would adopt their own strategies and phased timeframes to achieve this goal. The Strategic Plan sets out the following timelines for achieving the set goals:

[1] litres per capita per day
[2] Drinking-3 lpcd, Cooking-5 lpcd, Bathing-15 lpcd, washing utensils and house-10 lpcd, Ablution/Toilets-10 lpcd, Washing of cloths and other uses-12 lpcd
[3] Strategic Plan (2011-2022), Ministry of Drinking Water and Sanitation- Rural Drinking Water "Ensuring Drinking Water Security in Rural India"

by year 2017

- at least 50 *per cent* of rural households are provided with piped water supply;
- at least 35 *per cent* of rural households have piped water supply with a household connection; less than 20 *per cent* use public taps and less than 45 *per cent* use hand pumps or other safe and adequate private water sources;
- all services meet set standards in terms of quality and number of hours of supply every day;
- ensure that all households, schools and *anganwadis* in rural India have access to and use adequate quantity of safe drinking water;
- provide enabling support and environment for *Panchayati Raj* Institutions and local communities to manage at least 60 *per cent* of rural drinking water sources and systems.

by year 2022

- ensure that at least 90 *per cent* of rural households are provided with piped water supply;
- at least 80 *per cent* of rural households have piped water supply with a household connection; less than 10 *per cent* use public taps and less than 10 *per cent* use hand pumps or other safe and adequate water sources;
- provide enabling support and environment for all *Panchayati Raj* Institutions and local communities to manage 100 *per cent* of rural drinking water sources and systems.

1.4 United Nations Development Goals

The theme of providing safe drinking water was included by the United Nations in its Millennium Development Goals (MDGs) and subsequently the Sustainable Development Goals (SDGs).

Under the MDGs, nations committed to halving the proportion of households without access to safe drinking water sources from its 1990 level by 2015. The India Country Report[4] on achievements made under MDGs showed that these targets had been achieved during 2012 in the rural areas.

The SDGs Agenda for 2030 came into effect in January 2016. Under the SDGs, universal and equitable access to safe and affordable drinking water for all is to be achieved by 2030. The Ministry of Drinking Water and Sanitation in its Strategic Plan (2011-2022) envisaged providing drinking water to all rural households by 2017 and to enhance accessibility to piped water supply to households to 90 *per cent* by 2022.

[4] Issued by Ministry of Statistics and Programme Implementation (2015)

On the issue of integrating national goals with the relevant SDG goals, the Ministry informed (September 2017) that its overarching goal is *"Har Ghar Jal"*- i.e. to achieve saturation with household water connections in rural India. The Ministry added that it would require ₹ 23,000 crore annually till 2030 (at present cost) to achieve this goal and given the present financial outlays, SDGs cannot be realised solely through NRDWP efforts.

1.5 Audit approach

1.5.1 Audit objectives

The performance audit was taken up with the objective of ascertaining whether:

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

1.5.2 Audit methodology and coverage of performance audit

The performance audit commenced with an entry conference with the Ministry on 16 March 2017 wherein the audit methodology, scope, objectives and criteria were discussed. Simultaneously, entry conferences were held in each State by the respective Principal Accountants General/Accountants General with the nodal departments involved in the implementation of the Programme. Thereafter, records relating to the Programme were examined in the Ministry and in States between April 2017 and August 2017.

The performance audit covered implementation of the Programme over a period of five years i.e. from 2012-13 to 2016-17 in 27 States[5]. An audit survey was also carried out using a structured questionnaire designed to assess the involvement of *Gram Sabha*/village/habitations and its representatives in the Programme. After conclusion of the audit, an exit conference was held with the Ministry on 16 February 2018 in which the draft audit findings were discussed. Exit conferences were also held at the State level. This Report has taken into account replies furnished by the Ministry and Programme implementing agencies at different levels.

[5] Two States *viz.* **Haryana** and **West Bengal** were excluded from the selection due to coverage of audit of NRDWP in State Audit Reports of the previous year.

1.5.3 Source of audit criteria

The audit criteria were derived from the following:

- NRDWP Guidelines; Strategic Plan, notifications, orders and circulars issued by the Ministry of Drinking Water and Sanitation;
- Studies conducted by the erstwhile Planning Commission (NITI Aayog) and other monitoring agencies in Centre and State; and
- State Government orders relating to implementation of NRDWP;

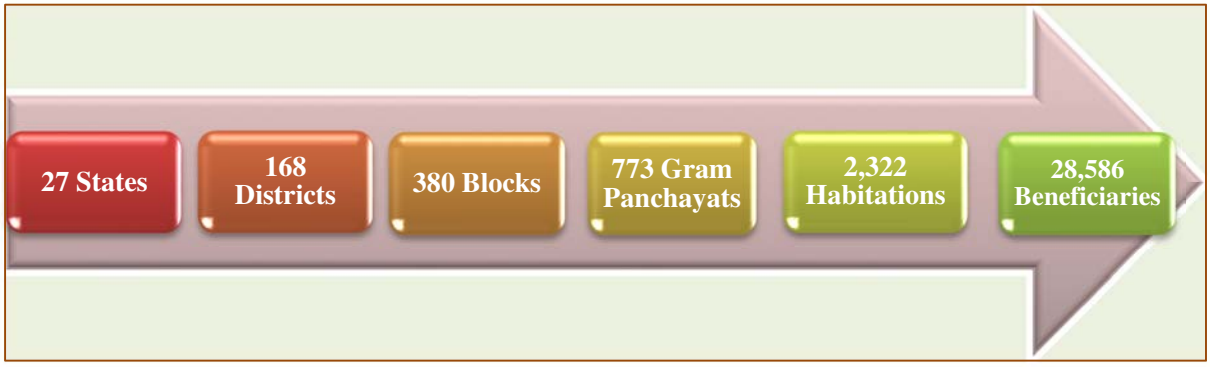
1.5.4 Audit sampling

Each State was divided into geographically contiguous regions and samples were taken from each region to make them representative of the entire State. The process and mechanism for sampling and selection of districts, blocks, *Gram Panchayats* and beneficiaries are detailed in **Annexe-1.1 (A).**

An audit survey was carried out to review the institutional arrangements at the *Gram Sabha*/Village levels and their involvement in planning and implementation and awareness about the Programme. In addition, the impact of the Programme on beneficiaries was studied with reference to key issues *viz*. availability, access, regularity and reliability of drinking water. The details of habitations surveyed and profile of beneficiaries are given in **Annexe-1.1 (B) and (C).**

The sample size covered during the performance audit is depicted in **Chart-1.1**:

Chart-1.1: Sample size



Details of the sampled districts, divisions, blocks, *Gram Panchayats*, habitations and beneficiaries selected are given in **Annexe-1.2**. Name of selected districts are given in **Annexe-1.3**.

1.5.5 Previous audit findings

The Programme was previously reviewed and included in the Comptroller and Auditor General of India's Report No. 12 of 2008 (Accelerated Rural Water Supply Programme). The significant observations included in the Report pertained to deficiencies in the Annual Action Plans, delayed submission of proposals, slip-back habitations [6], non-functional schemes, inadequate attention to water quality and infrastructure for testing and monitoring water quality.

The Public Accounts Committee (15th Lok Sabha), in their 35th Report (2011- 12) on the above-mentioned Report No. 12 of 2008 had made their recommendations. The Committee further reviewed the Action Taken Notes furnished by the Ministry (February 2012) in their 69th Report (2012-13).

The present performance audit of NRDWP for the period 2012-13 to 2016-17 revealed that the deficiencies pointed out in the earlier CAG's Report continued to persist. The details of deficiencies, corresponding recommendation and position as per current audit are given in **Annexe-1.4**.

1.6 Acknowledgement

Audit acknowledges the co-operation and assistance extended by the Ministry, State Governments and implementing departments and their officials at various stages during conduct of this performance audit.

[6] Habitations shifted from category of fully covered to partially covered due to drying up of sources or contamination of water sources, etc.

Chapter-II Planning and Delivery Mechanism

2.1 Introduction

Proper planning and a well-established delivery mechanism is essential for achieving the goals set out for any programme. The Programme guidelines envisage participation of relevant agencies at National, State, District, Block and Village levels for effective planning and implementation of rural drinking water schemes.

2.2 Planning

2.2.1 Non-preparation of State Specific Sector Policy Framework

India is a geographically diverse country with varied sources of available drinking water and hence preparation of a State Specific Sector Policy Framework is essential for each State. Programme guidelines accordingly mandated preparation of a State Specific Sector Policy Framework based on the 'National Policy Framework' by each State. Subsequently, based on the State Policy Framework, each State would take up State level planning for preparing water supply schemes for the Twelfth FYP.

However, 17 States *viz.* **Andhra Pradesh, Arunachal Pradesh**, **Goa, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Maharashtra, Manipur, Meghalaya[1], Mizoram, Nagaland, Odisha, Punjab, Sikkim, Tripura** and **Uttarakhand[2]** did not prepare State Specific Sector Policy Framework**.** In **Rajasthan,** though the Framework was stated to have been prepared, it was not made available to Audit. In **Tamil Nadu,** no information was provided to audit on this aspect.

2.2.2 Non-preparation of Water Security Plan

Water security planning is required to optimise the use of water resources within the constraints of financial and human resources in order to meet basic needs and also take decisions with regard to water resources management including investments. Water security planning is to be undertaken at the village, district and State levels.

Village Water Security Plan (VWSP) includes the demographic, physical features, water sources and other details of the village, available drinking water infrastructure and water sources, funding by dovetailing various funds available at village levels and

[1] The Department stated (October 2017) that framing of Meghalaya State Water Policy had been initiated.

[2] State of **Uttarakhand** has adopted National Rural Drinking Water Programme (NRDWP) guideline 2013 as policy of State to provide drinking water supply to its rural population.

requirement of funds from Rural Water Supply Programme. Based on the VWSP, District Water Security Plan (DWSP) are to be prepared. Further, under the broad goal set by each State, a five-year Comprehensive Water Security Action Plan was to be prepared.

However, Water Security Plans were not prepared at any of the three levels in 21 States *viz.* **Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Goa, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra[3], Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Punjab[4], Rajasthan[5], Uttar Pradesh[6]** and **Uttarakhand**.

In **Gujarat, Tamil Nadu** and **Tripura**, Water Security Plans were not prepared at Village and District level whereas in **Chhattisgarh** and **Telangana**, Water Security Plans were not prepared at Village and State level.

In two States of **Chhattisgarh** and **Telangana**, DWSP was not prepared in eight out of the 11 selected districts. In the remaining three[7] districts, though the plan was stated to have been prepared, no documentary evidence was provided to audit. In **Sikkim**, Water Security Plan at State level was not prepared.

In **Tamil Nadu**, though State level plan had been prepared for the Eleventh FYP, no plan was prepared for the Twelfth FYP. In **Tripura**, the plan was only prepared in 2017 for the period 2016-17 to 2021-22.

Rajasthan

Work for preparation of VWSPs for 5,455 villages was awarded in August 2010 at a cost of ₹ 10.51 crore to be completed within three months of issue of work order. Payments for the work was linked to five milestones *viz.*(i) submission of Inspection Report (five *per cent*), (ii) submission of VWSP including DPRs (75 *per cent*), (iii) submission of final report with GIS application (10 *per cent*), (iv) approval of STA (five *per cent*) and (v) clearance by SLSSC (five *per cent*). Audit noted that 4,917 DPRs were submitted by the firms of which 4,003 were verified and ₹ 3.73 crore had been paid to firms up to January 2015. However, milestones III, IV and V were not executed. In the absence of final reports on VWSPs and approval of STAs and SLSSCs, the entire expenditure of ₹ 3.73 crore was rendered wasteful.

[3] Except district Sangli in respect of DWSP
[4] DWSP was prepared in the shape of work programme.
[5] Department stated that CWSAP was prepared. However, supporting documents were not produced.
[6] 52 (out of 54) GPs test checked in respect VWSP
[7] Nalgonda (**Telangana**) and Raipur and Kawardha (**Chhattisgarh**)

Thus, a majority of the States had failed to ensure preparation of the Water Security Plans at the required levels which was indicative of schemes being formulated without any assessment of actual requirements and available resources.

2.2.3 Annual Action Plan (AAP)

Programme guidelines[8] require States to prepare their AAPs in a participatory manner detailing activities in the rural drinking water sector proposed to be taken up during the year and the financial costs of such proposals. In the AAP, higher priority was to be given to habitations where access to drinking water was limited up to 25 *per cent* of the population and to quality affected habitations. AAPs of the ensuing year were to be submitted to the Ministry by January of each year through online IMIS. These plans are thereafter discussed with the Ministry in February/March for the purpose of allocating funds to the States.

Discrepancies noted in the process of preparation and scrutiny of AAPs are discussed in the succeeding paragraphs.

2.2.3.1 Shortcomings in Processing of AAP by the Ministry

Audit examined records relating to processing of 31 AAPs of nine States (**Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Mizoram, Odisha, Rajasthan, Tripura** and **Uttar Pradesh**) pertaining to different financial years (2012-13 to 2016-17) and observed the following:

- Compliance with instructions issued for a specific financial year such as coverage of more quality affected habitations, increasing individual tap connections, testing of drinking water sources, strengthening of infrastructure facilities in laboratories, recruitment of professionals in WSSO, DWSM, BRC, addressing public grievances, etc., was not being reviewed by the Ministry in processing subsequent year AAPs.

- Targets projected for a specific financial year were changed by the State(s) in subsequent year while depicting achievement for that year. The reasons for the changes were however not being ascertained by the Ministry. Adherence to Programme target for provision of 55 lpcd of drinking water was not being ensured while approving AAPs and States were being permitted to fix a lower target of 40 lpcd of drinking water. Further, the format of the AAP was not such that allowed the Ministry to ensure that schemes proposed by the States were in line with the strategic goals.

[8] Para 14

Ministry explained (September 2017) that it was not possible to monitor the AAPs minutely due to limited manpower.

2.2.3.2 Discrepancies in preparation of AAPs

In 10 States of **Andhra Pradesh, Assam, Bihar, Goa, Jharkhand, Kerala, Nagaland, Meghalaya, Mizoram** and **Uttar Pradesh,** Annual Action plans (AAPs) were prepared at State levels without District level AAPs being prepared. In **23 States**, audit observed shortcomings in preparation of AAPs such as delayed submission/approval of AAP, lack of local stakeholder and community involvement in preparation of AAP, absence of approval from SLSSC and non-inclusion of minimum service level of water (55 lpcd) in schemes/plan as detailed in **Annexe-2.1**.

2.3 National Drinking Water and Sanitation Council

The National Drinking Water and Sanitation Council (NDWSC)[9] was created in July 2010 to bring greater co-ordination and convergence among different Ministries/ Departments of the Central Government and between Centre and States on issues relating to drinking water and sanitation. As per the Strategic Plan (2011-22), the Ministry, through the National Water Mission (under Ministry of Water Resources) and NDWSC, was to take a convergent approach along with the other concerned Ministries.

Audit observed that NDWSC had remained dormant during the period 2012-17. As a result, a co-ordinated and convergent approach with other stakeholders was missing in the planning and implementation of the Programme.

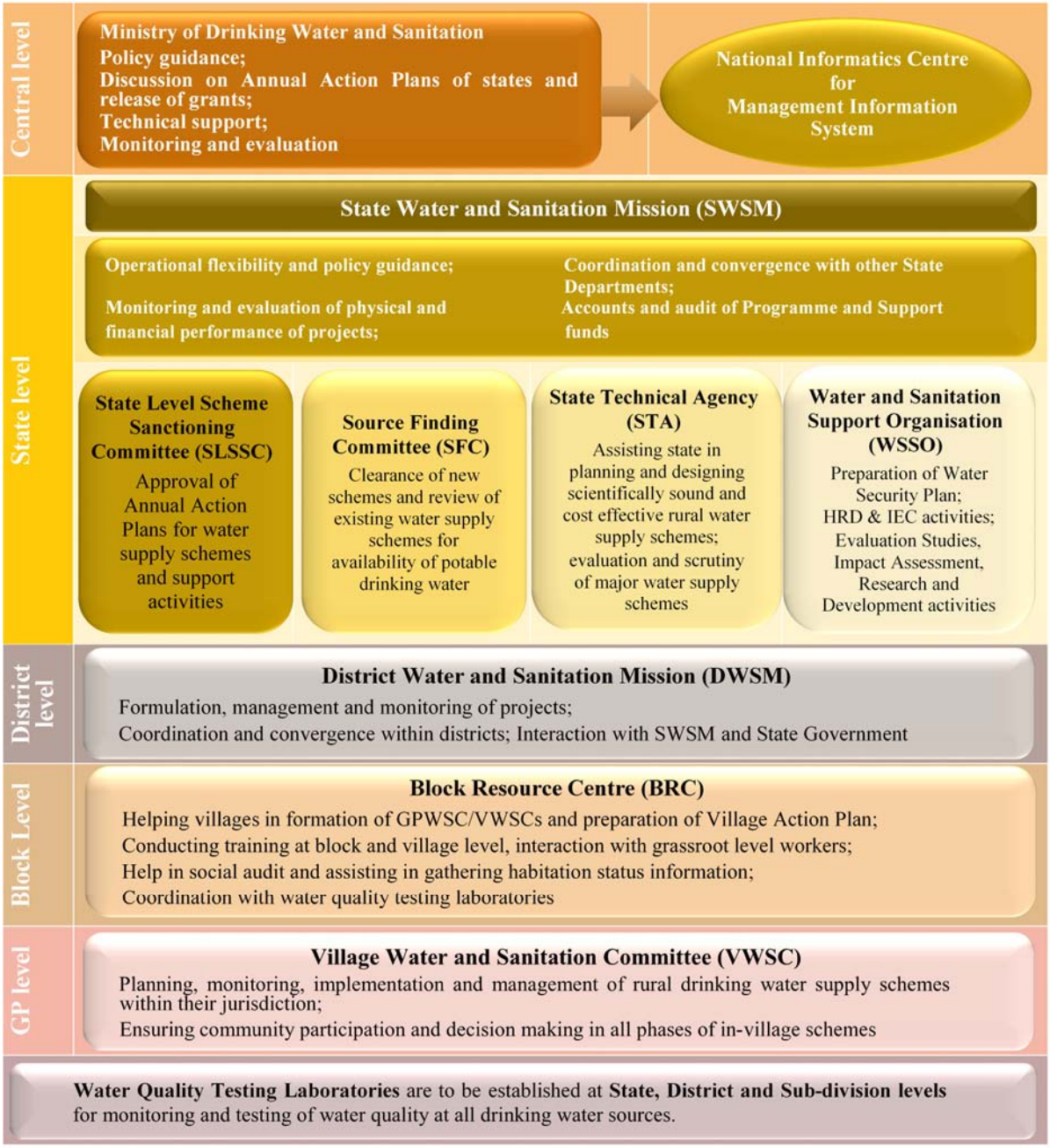
The Ministry accepted (September 2017) that no meeting had been held after the first two meetings (prior to 2012) and stated that co-ordination and convergence was being achieved through alternate means. However, the fact remains that the Ministry was deprived of the benefits of a high level forum for addressing issues requiring coordination and convergence.

[9] Consisting of representatives of different Departments, five State secretaries and ten members drawn from expert organisations/Civil society organisations/Educational & scientific institutions/Zila Panchayats/Apex Industry associations.

2.4 Delivery Mechanism

Programme guidelines envisage creation of an institutional framework spanning various levels and bodies entrusted with specific responsibilities to ensure smooth delivery of various components of the Programme. This framework is detailed in **Chart-2.1**:

Chart-2.1: Delivery mechanism at Central and State level



Source: Programme guidelines

2.4.1 State Water and Sanitation Mission

According to NRDWP guidelines, a "State Water and Sanitation Mission (SWSM)" was to be set up as a registered society at the State level under the aegis of the Department/Agency implementing the rural water supply programme in the State. SWSM was to be headed by the Chief Secretary/Additional Chief Secretary/ Development Commissioner with Secretaries in-charge of PHED, Rural Development, *Panchayati Raj*, Finance, Health, Education, Women and Child Development, Water Resources, Agriculture, Information and Public Relations as members. The Mission was to be the apex level institution in the State entrusted with key functions related to policy, coordination, management and monitoring of the water supply and sanitation project in the State. The Mission was expected to meet at least twice a year.

Audit observed that SWSMs were not formed as mandated by the guidelines in **Goa, Karnataka** and **Mizoram** and its functions were being performed by other Departments/agencies. This defeated the purpose of setting up of a Mission with representation from all Departments to ensure better convergence and coordination. In nine States *viz*. **Andhra Pradesh[10], Gujarat, Himachal Pradesh, Madhya Pradesh, Maharashtra, Meghalaya, Rajasthan, Tamil Nadu** and **Tripura**, SWSMs remained non-functional as no meetings were held.

In nine other States of **Arunachal Pradesh, Assam, Chhattisgarh, Jammu & Kashmir, Kerala, Manipur, Punjab, Sikkim** and **Uttar Pradesh**, the SWSMs met infrequently i.e. one to six[11] times during 2012-17. Records relating to meeting of the Mission were not provided to audit in **Jharkhand[12], Nagaland** and **Telangana.**

Thus, not only were Programme guidelines violated in several States, there was also no assurance that the programme received the support in terms of policy guidance, co-ordination, monitoring and evaluation at the apex level which is critical for ensuring its successful delivery.

2.4.2 State Level Scheme Sanctioning Committee

States were to constitute a State Level Scheme Sanctioning Committee (SLSSC) to be chaired by Secretary, PHED/Rural Water Supply Department. The SLSSC was to approve the Annual Action Plan (AAP) on habitations to be targeted under the Programme and schemes to be taken up in consultation with the Ministry. This

[10] SWSM was headed by Principal Secretary, PR & RD Department.

[11] **Arunachal Pradesh** (6), **Assam** (5)**, Chhattisgarh** (5), **Jammu & Kashmir** (1), **Kerala** (1), **Manipur** (4), **Punjab** (3), **Sikkim** (1) and **Uttar Pradesh** (3)

[12] In **Jharkhand**, Programme Management Unit (PMU) was functioning for NRDWP whereas Jharkhand State Water and Sanitation Mission (JSWSM) was functioning for World Bank projects.

Committee was to meet at least twice a year wherein, apart from sanctioning new schemes, progress, completion and commissioning of the schemes approved earlier were to be reviewed.

Audit scrutiny brought that against the required 10 meetings for each State, there were shortfalls ranging between 30 and 80 *per cent* during 2012-17 in 20 States as given in **Annexe-2.2**. In **Bihar** and **Himachal Pradesh**, the shortfall in number of meetings during 2015-17 was 50 *per cent*[13].

In **Goa**, the committee was not functional and decisions were actually taken by the Public Works Department in place of the SLSSC. In **Meghalaya, Mizoram** and **Nagaland**, the role of the Committee was confined to only sanctioning of projects. In **Odisha**, the Committee approved works only in terms of numbers without specifying the name of the works. Therefore, evaluation of each approved work by SLSSC was not possible in subsequent meetings. In **Rajasthan**, the Committee accorded ex-post facto approval to 7,276 schemes costing ₹ 5,867.65 crore which defeated the purpose of formation of SLSSC as feasibility of the schemes and other aspects were required to be scrutinized by SLSSC before according approval.

Thus, non-performance of the assigned role and shortfall in the number of meetings undermined the objective of setting up of the SLSSCs of providing apex level policy guidance, review and coordination.

2.4.3 State Technical Agency

The SWSM was required to identify reputed technical institutions in consultation with the Ministry for appointment as State Technical Agency (STA). The STAs were to provide technical support to the Department in planning and design of rural water supply schemes with emphasis on sustainability of the source and assist in evaluation of major and complicated water supply schemes. The STA was also responsible for providing feedback to the SWSM/SLSSC/department on various aspects relating to planning and implementation of the scheme at the field level.

Audit observed that seven States i.e. **Andhra Pradesh**[14], **Gujarat**[15], **Jammu & Kashmir**[16], **Meghalaya, Nagaland, Punjab** and **Telangana**[17] had not identified STAs. In six States of **Assam, Chhattisgarh, Karnataka, Manipur, Rajasthan** and **Uttar**

[13] One meeting each year during 2015-17 in both States.
[14] STA was constituted in March 2012, however, after bifurcation (June 2014) of state, the agency remained non-functional.
[15] State has Internal Technical Committees only.
[16] Preparation, scrutiny and vetting of the DPRs were done by the Chief Engineers, PHED.
[17] Both scrutiny and clearance of various items of works planned under NRDWP was done by SLSSC.

Pradesh) a Committee/Body/Agency of serving/retired officers or even the work executing agency itself was functioning as STA instead of a reputed technical institution. Other State specific findings are as below:

Arunachal Pradesh: North Eastern Regional Institute of Science & Technology (NERIST), Nirjuli, was appointed as STA in June 2014. However, none of the schemes [18] were referred to STA for pre-evaluation nor was post evaluations of completed schemes carried out by the STA during 2012-17.

Chhattisgarh: Functions like assistance in planning and designing projects, preparation of action plan for hardware and software activities, evaluation and monitoring, feedback, etc., were not performed by the STA.

Himachal Pradesh: STA was identified in October 2015 for a period of one year. However, status of extension to STA beyond one year was not found on records of the Department.

Jharkhand: Though STA was identified in November 2011, their services were taken after November 2014. Till November 2014, DPRs were presented in SLSSC meetings without vetting by STA.

Kerala: Instead of engaging a reputed technical institution, State Government constituted an agency headed by the Managing Director, Kerala Water Authority (July 2010) to function as STA. However, even this agency was not functional.

Mizoram: STA was constituted in November 2009 with the Joint Secretary, PHED, as Officer-in-Charge and six other members including a public health institute[19] which was responsible for engaging technical experts for scrutinising projects. However, no technical experts were engaged and the Detailed Project Reports (DPRs) were scrutinised without deliberating on technical parameters.

Odisha: DPRs/estimates of Rural Piped Water Supply works were not sent to STA for scrutiny.

Sikkim: Instead of identifying reputed technical institutions, the Water Security and Public Health Engineering Department was identified as the STA. Further, except for two[20] mega RWSS projects, DPRs and estimates relating to RWSS works were not vetted by the STA.

[18] 828 schemes for the period 2014-17.
[19] All India Institute of Hygiene & Public Health, Kolkata
[20] Namphing and Yangang.

Uttarakhand: The SLSSC discontinued the services of STA[21] in December 2016 on the grounds that there were already two filter levels existing in the State i.e. Departmental Sanctioning Committee and Empowered Sanction Committee.

Thus, failure to identify and designate STAs and to ensure their proper utilisation for the prescribed tasks increased the risk of schemes being taken up which were not technically sound or feasible.

2.4.4 Source Finding Committee

The Source Finding Committee (SFC) was required to invariably review the feasibility and functioning of existing water supply schemes in terms of adequacy of availability of potable drinking water. The schemes put up for approval in the SLSSC were required to have prior clearance of the SFC.

Audit scrutiny showed that SFC was not constituted in 19 States i.e. **Arunachal Pradesh, Assam** [22] , **Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Rajasthan, Sikkim, Telangana, Uttar Pradesh** and **Uttarakhand**. In **Gujarat**, the SFC did not assess ground water schemes as a result of which 2,052 ground water based schemes were non-functional (July 2017) mainly due to inadequate quantity of water in the concerned water sources of the schemes.

In the absence of SFC, the nodal agencies did not obtain the required assurance with regard to availability of adequate potable water while approving and reviewing water supply schemes.

2.4.5 Water and Sanitation Support Organisation

All States were to set up a Water and Sanitation Support Organisation (WSSO) under SWSM and existing Communication and Capacity Development Unit (CCDU[23]) for water and sanitation was to be merged with this organisation which was to become a Rural Water and Sanitation Management Organisation at the State level in the form of a Society [24] with members from reputed civil society organisations, academic institutions, technical institutes and representatives of VWSCs. The Organisation was to be mainly responsible for assisting the Panchayat Raj Institutions (PRIs) in preparation of water security plan, human resource development and IEC activities,

[21] IIT Roorkee
[22] SFC was constituted in May 2017
[23] Unit to take up IEC and HRD activities
[24] Under Society Registration Act.

impact assessment and evaluation studies research and development activities and use of modern IT tools for monitoring.

Audit scrutiny showed that four States *viz*. **Andhra Pradesh, Kerala, Mizoram** and **Sikkim** did not set up WSSO and CCDUs continued to work for the Programme. There were various shortcomings in functioning of WSSO in **13 States** such as shortage of staff, non-conduct of evaluation studies and non-involvement in preparation of water security plans as tabulated in **Annexe-2.3**.

2.4.6 District Water and Sanitation Mission

A District Water and Sanitation Mission (DWSM) was to be constituted at the district level and was to function under the supervision, control and guidance of the Zila Panchayat/Parishad. The Mission would be headed by the Chairperson of the Zila Panchayat/Parishad and would include elected representatives, Chairperson of the Standing Committee of the Zila Parishad and district level government functionaries. The Mission was to meet at least quarterly and be responsible for formulation and management of projects and monitoring its progress.

Audit scrutiny of records showed that DWSM was not formed in any of the selected districts in **Bihar, Kerala, Madhya Pradesh, Rajasthan** and **Tamil Nadu**. In two States i.e. **Karnataka** and **Maharashtra**, DWSM was not formed in five[25] out of the 20 selected districts. In **Nagaland**, the Department did not furnish records regarding formation of DWSM and the activities carried out by them in the selected districts.

Audit noticed shortcomings in functioning of DWSM such as non-conduct of meetings, shortfall in number of meetings, non-functional DWSMs, Mission not chaired by chairperson of Zila Parishad, non-inclusion of public representative (MP/MLA/PRI), shortage of staff and limitation of role to *Swachh Bharat Mission* in **19 States** as given in **Annexe-2.4.**

2.4.7 Block Resource Centre

Block Resource Centre (BRC) was envisaged as the nodal point at the block level to provide continuous support in terms of awareness generation, motivation, mobilisation, training and handholding of village communities, GPs and GPSC[26]/VWSCs. The BRC was to be under the administrative control and supervision of Block *Panchayats* and serve as an extended delivery arm of DWSM.

[25] Bidar and Yadgir of **Karnataka** (2), Beed, Buldhana and Raigad of **Maharashtra** (3)
[26] *Gram Panchayat* Sanitation Committee

Audit scrutiny showed that BRCs were not established in the selected blocks in 17 States i.e. **Bihar, Goa, Gujarat, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Punjab, Rajasthan, Sikkim, Tamil Nadu[27], Telangana** and **Uttarakhand**. In five other States of **Andhra Pradesh, Himachal Pradesh, Maharashtra, Odisha** and **Uttar Pradesh**, there was shortfall in formation of BRC upto 52 *per cent in* selected blocks. Other State specific comments on the functioning of BRC are as below:

Andhra Pradesh: In two districts (Guntur and West Godavari), though BRCs were constituted they remained non-functional.

Arunachal Pradesh: 44 Sub-Divisional Offices of PHED were notified in January 2012 by the State Government to act as BRCs for 99 Blocks in the State. These BRCs were under the control of Executive Engineers, PHED and not the Block *Panchayats*. There was no evidence to show that BRCs conducted any awareness programmes, training activities and site visits on the matter of safe water and testing of drinking water sources using kits, etc.

Assam: Functions of BRCs were limited to only sanitation.

Chhattisgarh: BRCs were stated to be formed in eight[28] out of 16 selected blocks but no records were produced. No information was furnished by the remaining blocks.

Jharkhand: BRCs started functioning only from April 2013 and functioned upto March-November 2016 in the blocks of six selected districts. However, BRCs failed to perform their function as per guidelines in selected districts.

Odisha: In 24 selected Blocks, BRCs were functioning with 39 personnel against the requirement of 61 personnel. Due to shortage of staff, awareness campaign, motivation, mobilisation and training to the village communities, GPs and VWSCs was not done.

Uttar Pradesh: Only Block Co-ordinator[29] was posted in the BRCs. Cluster co-ordinators were not posted in any of the BRCs in the State.

The fact that BRCs were either absent or were functioning inadequately across all States indicated that the Programme was being planned and implemented without ensuring proper stake-holder involvement and support.

[27] Infrastructure at Block level functioning under the State Rural Development Department was co-opted to function as BRCs.
[28] Abhanpur, Dharsiwan, Kawardha, Bodla, Dongargarh, Khairagarh, Surajpur and Ramanujnagar
[29] One of the 24 functionaries of BRC

2.4.8 Village Water and Sanitation Committee

A Village Water and Sanitation Committee (GPWSC/VWSC) was to be set up in each village for implementation of water supply schemes to ensure the active participation of villagers. The Committee was to be assigned responsibility for tasks such as planning, designing and implementing in-village drinking water and sanitation activities and providing data and information to the *Gram Panchayat* for reviewing water and sanitation issues.

VWSCs were not formed in **Bihar, Kerala, Rajasthan** and **Tamil Nadu**[30]. In the selected GPs of 10 States (**Assam, Goa, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Nagaland, Odisha** and **Uttarakhand**), the shortfall in formation of VWSC ranged between 29 and 96 *per cent*.

Audit observed shortcomings in functioning of VWSC in **12 States** such as non-involvement of VWSC in planning and management of the scheme, limitation of role to sanitation sector, non-ensuring the representation of SCs, STs and poorer sections of the villages, etc., as brought out in **Annexe-2.5**.

Thus, non-setting up of VWSCs indicated lack of bottom up approach in planning, designing and implementation of the Programme.

2.5 Audit Summation

The institutional mechanisms and structures intended for effective implementation of the scheme ensuring stakeholder participation were not established in most of the States and where established failed to function on a regular basis. At the Central level, the apex level Committee i.e. NDW&S Council intended for achieving coordination and convergence remained largely non-operational. At the State level, Water Security Plans were not being prepared in most States at any of the three tiers i.e. village, district and State as envisaged in the Programme guidelines signifying absence of bottom up approach and community participation in the planning of schemes. Further, structural support for delivery of the Programme was weak in States as the apex level body i.e. SWSM for policy guidance, convergence and coordination was either not functional in **12 States** or functioned with limitations. The SLSSC which is tasked with approval and monitoring progress and completion of schemes did not meet at prescribed intervals. Technical support for schemes was not ensured as State Technical Agency and Source Finding Committees were non-identified/not formed in **seven States** and **19 States** respectively. At the District level, the functioning of DWSMs though formed in

[30] Tamil Nadu Water Supply and Drainage (TWAD) Board was doing the work of VWSC

19 States, suffered from a variety of shortcomings which undermined their utility and effectiveness. The block level delivery body i.e. Block Resource Centre was not formed in selected blocks of **17 States**. Village Water and Sanitation Committees was not formed in several GPs across States and inadequacies were noticed in their functioning.

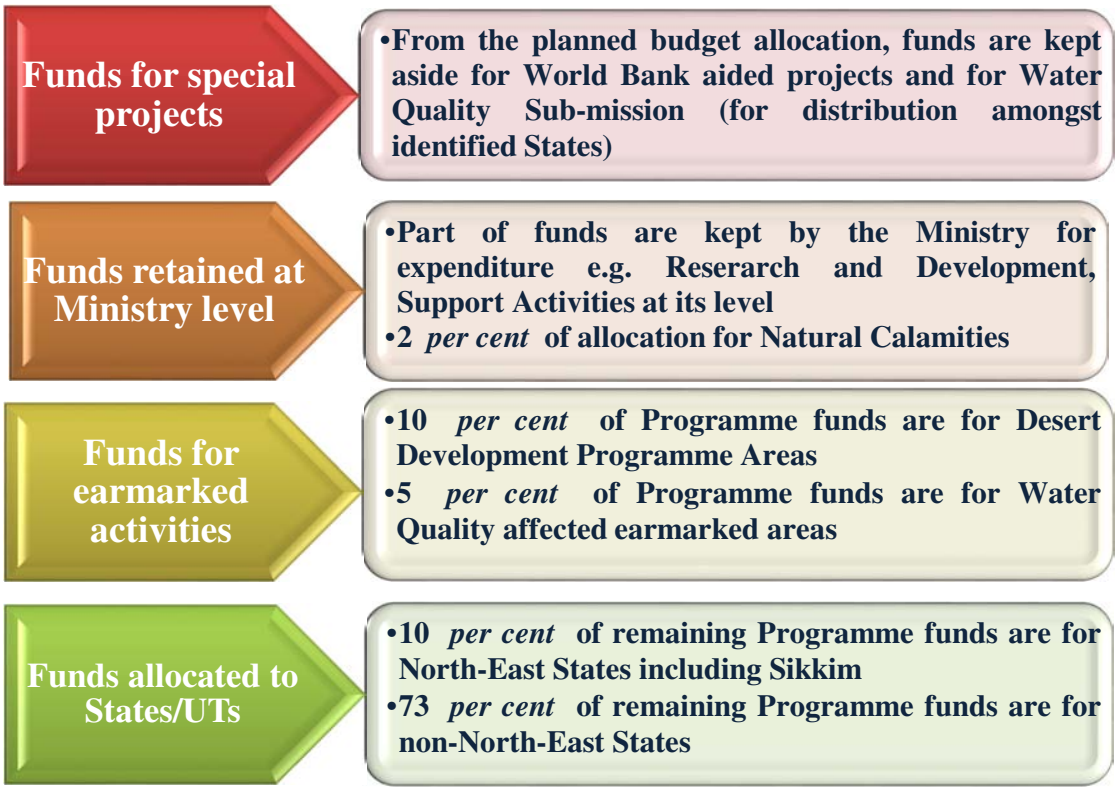
Consequently, the Programme faced constraints both in terms of planning and delivery which ultimately affected achievement of programme's goals and targets.

Chapter-III Fund Management

3.1 Introduction

NRDWP was implemented as a centrally sponsored scheme with cost being shared between the Central and State Governments. Within the planned budget allocation, funds are earmarked for specific categories such as World Bank Projects, Water Quality Sub-Mission, projects in the North East States and projects in Desert Development Programme States. The Ministry also retains funds for R&D and support activities and for natural calamities. The balance funds are thereafter allocated to States under six NRDWP components[1]on the basis of rural population based weightage criteria. The main categories under which allocation was earmarked are given in **Chart-3.1**:

Chart-3.1: Distribution of Budget Allocation



Source: Programme guidelines

[1] Coverage, Sustainability, Water Quality, Operation & Maintenance, Water Quality Monitoring & Surveillance, Support (Para 9.2 and 9.3 of the Programme guidelines).

3.2 Financial Performance

Programme guidelines laid down the pattern of component wise funding specifying Central and State share for each component. Following the 14th Finance Commission's recommendation for increasing devolution of funds to the States and based on the recommendations of the sub-group of Chief Ministers on Rationalisation of Centrally Sponsored Schemes, the Ministry changed the funding pattern for various components of the Programme with effect from 1 April 2015. The original and revised funding pattern is given in **Table-3.1** below:

Table-3.1: Centre-State fund sharing pattern

Component	Original pattern		Revised pattern	
	Other States	NE/Himalayan States	Other States	NE/Himalayan States
Coverage, Water Quality, Operation and Maintenance	50:50	90:10	50:50	90:10
Sustainability, Support, Water Quality Monitoring and Surveillance (WQM&S)	100:0	100:0	60:40	90:10
Desert Development Programme, Natural Calamity	100:0	100:0	60:40	90:10
Earmarked Water Quality	50:50	90:10	50:50	90:10

Source: Programme guidelines

3.2.1 Funds allocation for NRDWP by Centre

During 2012-17, the total budget allocation made to the Ministry was ₹ 40,111 crore. Against this, the Ministry incurred an expenditure of ₹ 39,779 crore during this period of which releases to States was ₹ 39,501 crore. The year-wise details are given in **Table-3.2** below:

Table-3.2: Allocation of funds by the Central Government: 2012-17

(₹ in crore)

Year	Budget Estimates	Revised Estimates	Actual Expenditure#	Funds released by the Ministry to States*
2012-13	10,500	10,500	10,490	10,473
2013-14	11,000	9,700	9,697	9,640
2014-15	11,000	9,250	9, 243	9,191
2015-16	2,611	4,373	4,370	4,265
2016-17	5,000	6,000	5,979	5,932
Total	**40,111**	**39,823**	**39,779**	**39,501**

Source: Records of the Ministry

 # Release to States + Ministry level expenditure

The Ministry expected that the decrease in budgetary allocation in the years 2015-16 and 2016-17 would be compensated by the enhancement in devolution of funds to the States based on the recommendations of the 14th Finance Commission and the increase

in the States' share of the components of the Programme as effective from 1 April 2015. In addition, States were advised to explore alternative sources of funding from both domestic and external lending agencies to meet their resource requirements.

3.2.2 Deduction/cut in Central share to States

As part of measures to improve financial discipline[2] in transfer of funds to States, opening balance in excess of 10 *per* cent of the release in the previous year is required to be subsumed in the release of the first instalment during a year. Further, Central share of funds was also liable to cuts on account of reasons such as late receipt of proposals from State governments, less release of State's share and excess expenditure on operation and maintenance.

Audit observed that Ministry imposed cuts and reduced Central share by a total amount of ₹ 829.39 crore in the case of **13 States** due to reasons given above during the period covered by audit. These cuts were the highest in the case of **Rajasthan** (₹ 398.53 crore) and ranged between ₹ 50 crore and ₹ 80 crore in the case of **Assam**, **Bihar, Jharkhand, Karnataka** and **Maharashtra** and between ₹ 25 crore and ₹ 50 crore in **Andhra Pradesh** and **Himachal Pradesh.** The cut was ₹ 10 crore or less in the case of **Manipur**, **Odisha**, **Punjab** and **Telangana.**

3.2.3 Short/Non-release of State share

In 12 States, matching States share amounting to ₹ 1,178.76 crore was either not released or short released during 2012-17. Short or non-release of State share was more than ₹ 100 crore in the case of **Andhra Pradesh**, **Maharashtra** and **Uttarakhand** with the amount with respect to **Maharashtra** being the highest at ₹ 547.93 crore. In the case of **Assam**, **Bihar**, **Himachal Pradesh, Rajasthan** and **Telangana**, short/non release ranged between ₹ 40 crore and ₹ 100 crore. Short/ non-release was less than ₹ 10 crore in case of **Arunachal Pradesh, Mizoram, Nagaland** and **Sikkim.**

Analysis in audit showed that after change in the sharing pattern between Centre-State with respect to certain components, States did not release their matching share against Central share during 2015-17 under these components. Details are given in **Annexe-3.1**.

Ministry stated (February 2018) that due to late intimation about changed funding pattern (January 2016) to the States, some of the States could not make provision for the same in the financial year 2015-16. This reply is not tenable as many States did not release their share against Central share even in the next financial year.

[2] Ministry of Finance O.M. dated 13 May 2012

3.2.4 Release and utilisation of Central and State funds

The release and utilisation of Central and States share of funds for implementation of NRDWP during 2012-17 is detailed in **Table-3.3** below:

Table-3.3: Release and utilisation of Central and State funds: 2012-17

(₹ in crore)

Year	Opening Balance	Fund Released to State	Interest/ Recoveries	Available Fund	Expenditure	Closing Balance	
						Amount	Percentage of available fund
Central Release and Expenditure							
2012-13	3705	10473	207	14385	10081	4303	29.92
2013-14	4304	9640	105	14049	10937	3112	22.15
2014-15	3054	9191	57	12302	9788	2515	20.44
2015-16	2511	4265	86	6862	5325	1537	22.40
2016-17	1537	5932	30	7499	5393	2105	28.08
Total		**39501**	**485**	**43691#**	**41524**		
State Release and Expenditure							
2012-13	--	9151	--	9151	7325	1826	19.95
2013-14	--	9528	--	9528	8275	1253	13.15
2014-15	--	10188	--	10188	9090	1098	10.78
2015-16	--	7966	--	7966	6795	1171	14.70
2016-17	--	9432	--	9432	8159	1273	13.50
Total	--	**46265**	--	**46265**	**39644**		
Total Centre and State Release and Expenditure							
2012-13	3705	19624	207	23536	17406	6130	26.05
2013-14	4304	19168	105	23577	19212	4365	18.51
2014-15	3054	19379	57	22490	18878	3612	16.06
2015-16	2511	12231	86	14828	12120	2708	18.26
2016-17	1537	15364	30	16931	13552	3379	19.96
Total		**85766**	**485**	**89956**	**81168**	**8788**	**9.77**

Source: IMIS data of the Ministry

Note: *#Available balance is equal to opening balance of 2012-13 plus total release during 2012-17 and interest received.*

In respect of Central funds, there were variations in closing and opening balances during 2012-13 to 2015-16 in IMIS data.

IMIS data does not disclose availability of unspent balance under State share.

Thus, there were savings with respect to available funds in each year though the percentage of savings declined from 26.05 *per cent* in 2012-13 to 19.96 *per cent* in 2016-17. Overall, funds amounting to ₹ 8,788 crore, including ₹ 2,105 crore from Central share, remained unutilised at the end of March 2017.

Further, the overall availability of funds for the Programme decreased from ₹ 23,577 crore in 2013-14 to ₹ 16,931 crore in 2016-17 belying the expectations that States would be able to adequately compensate for the lower central allocation. Moreover, even the reduced allocations were not fully utilised. The decrease in availability of funds coupled with inability of the State Governments to utilise the reduced funds impacted the implementation of Programme both in terms of number of schemes taken up and completed from 2014-15 onwards as discussed in paragraph 4.2.4. State-wise

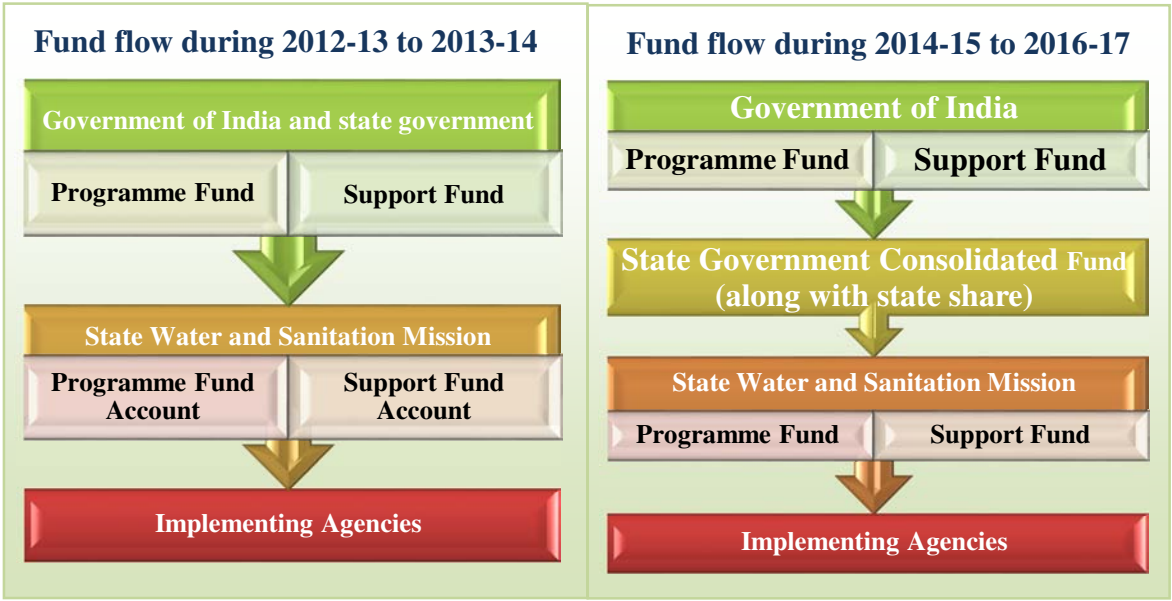
position of releases, utilisation and outstanding balance of Central and State share of funds during 2012-17 is at **Annexe-3.2**.

The Ministry in its replies to the Standing Committee(s) of Parliament on Rural Development on Demand for Grants[3] stated that late submission of proposals for release of second instalments, late submission of utilisation certificates and excessive time taken in implementing the scheme at ground level were the main reasons for unspent balances. The Ministry added (August 2016) that reasons for unspent balance in States were administrative in nature and were issues of financial management.

3.2.5 Fund flow mechanism

Programme guidelines stipulate release of NRDWP funds directly to State implementing agencies. Accordingly, Government of India (GoI) released funds directly to the State Water and Sanitation Missions (SWSM) till 2013-14. However, from 2014-15 onwards, funds were being routed through the Consolidated Fund of the State with a stipulation that the State Governments would transfer these funds including State's share to SWSM within 15 working days of receipt of funds from the Centre. The flow of NRDWP funds to the States is depicted in **Chart-3.2**:

Chart-3.2: Fund flow mechanism



Source: Programme guidelines

Programme guidelines provide that SWSM shall maintain separate bank accounts for programme funds and support funds and the Ministry was to release programme funds[4] and support funds[5] into these accounts. Further, State Governments were to release their matching share to the SWSMs.

[3] 2013-14 to 2016-17 and Reports on Action Taken on the recommendations thereon.
[4] For components such as coverage, water quality, O&M and sustainability.
[5] For bodies like WSSO, DWSM, BRCs, IEC, HRD, MIS and computerisation, R&D, etc., and WQM&S

In 16 States i.e. **Andhra Pradesh, Arunachal Pradesh, Bihar, Gujarat[6], Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Meghalaya, Odisha, Sikkim, Tamil Nadu, Telangana, Tripura, Uttar Pradesh** and **Uttarakhand[7],** Central share was directly released to dedicated programme fund accounts and support fund accounts maintained by SWSM and the State share was also transferred to these accounts through State Budget till March 2014. From April 2014 onwards, the Central share was routed through the State Consolidated Fund to the dedicated accounts of SWSMs as part of restructuring of CSS.

In **Assam,** Central share was released to SWSM through the State Budget in 2014-15 whereas in the period 2015-17 it was released directly to work executing department without routing through SWSM. The State shares were directly released to work executing departments throughout the period 2012-17 which was a violation of Programme guidelines.

In **Goa**, while both Central and State shares were being directly credited to SWSM accounts up to 2013-14, from 2014-15 onwards both these shares were being released to work executing department without routing through SWSM.

In nine States of **Chhattisgarh, Himachal Pradesh, Madhya Pradesh, Maharashtra, Manipur, Mizoram, Nagaland, Punjab** and **Rajasthan,** while the Ministry was releasing the Central share directly to SWSM the State share was being released by the State to work executing departments without routing it through SWSM upto March 2014. From April 2014, the Central share was released to State Consolidated Fund which was thereafter along with the States' share being released to work executing divisions/implementing agencies without routing through SWSM.

Non-routing of funds through SWSMs especially after March 2014, was in contravention of the guidelines. It also undermined the SWSMs as an apex body in the State for guiding, coordinating and monitoring the project by reducing its control over programme finances.

Manipur and Rajasthan

State Governments transferred Central share directly to work executing department without routing them through SWSM since April 2014. As a result, dedicated accounts for programme fund and support funds of SWSM became non-operational and ₹ 66.03 crore (**Manipur** ₹ 1.01 crore and **Rajasthan** ₹ 65.02 crore) remained unutilised in these accounts (March 2017).

[6] **Gujarat**, since 2014-15 provides fund to Gujarat Water Supply and Sewerage Board (GWSSB), Water and Sanitation Management Organisation (WASMO) and GJTI.
[7] Except state shares for 2012-14.

Karnataka

Against the stipulation of operating two accounts for the Programme and support accounts, the State Government of **Karnataka** was operating 108 savings accounts in four different banks. Only two savings banks accounts *viz.* an account in Syndicate Bank, BWSSB Branch, Bengaluru (Programme Fund) and an account in Corporation Bank, Malleswaram Branch, Bengaluru (Support Activities Fund) were communicated to the Ministry for transfer of funds.

Of the remaining 106 accounts, seven accounts were opened (six in August 2010 and one January 2011) in Syndicate Bank, BWSSB Branch. Of these seven accounts, while three accounts were never operated the remaining four accounts received funds from the Programme fund account for payment to contractors.

In addition to the above, 98 accounts (97 in Syndicate Bank, BWSSB Branch and one in Andhra Bank) were opened in March 2011. In one of the 97 Accounts opened in the Syndicate Bank, ₹ 73 crore was transferred in the month of March in 2011, 2012 and 2013 from the four accounts opened in August 2010 referred to above. This amount was re-credited to the four accounts by June 2013. These transactions were not supported by any documentary authorizations which indicate that these transactions were carried out to inflate the expenditure and for parking of funds.

In other 96 accounts opened in 31 March 2011 in the name of district officers for various component of the Programme, ₹ 525 crore was transferred from four accounts opened in August 2010. However, after lapse of 11 days (11 April 2011), the entire amount along with along with interest was credited back to the respective four accounts.

In the account opened in Andhra Bank in March 2011, ₹ 90.42 crore was deposited (26 March 2011) after being withdrawn from the treasury by debiting Capital Expenditure-Rural Water Supply for release to various Zila Parishad for utilisation under the respective components. During November 2011 to April 2014, ₹ 5 crore was transferred (30 March 2013) to another bank account in Dena Bank and ₹ 0.73 crore was released to Zila Parishad for payment to contractor.

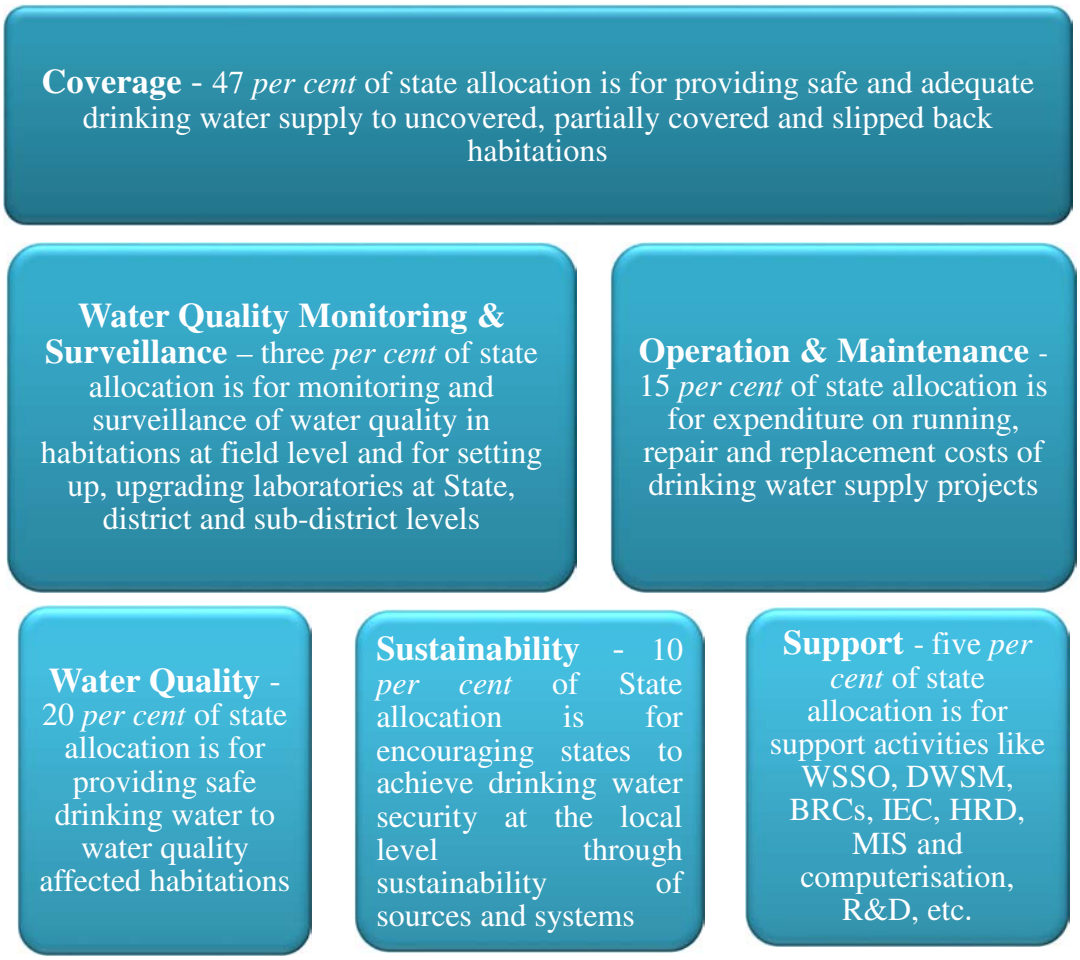
These transactions indicate that besides two main authorized accounts, funds were parked by the State Government in various unauthorized accounts.

Opening of multiple bank accounts and complicated inter-bank transactions indicated lapses in control over funds allocated for the Programme. A committee constituted (October 2015) by the State Government recommended (June 2016) a detailed reconciliation of these transactions which was still in progress (August 2017). Meanwhile, the balances of ₹ 612 crore in these accounts (except two main accounts) as of May 2016 were remitted back to the government.

3.2.6 Short-utilisation of funds available for NRDWP components

Funds of NRDWP are allocated for its six components and for specific areas, habitations and purposes as depicted in **Chart-3.3**.

Chart-3.3: Component-wise distribution of Programme Funds



Due to the wide variation between States in terms of the number of habitations with water quality problems and the number of partially covered habitations, guidelines provide flexibility in allocation of funds under the Coverage and Water Quality components up to 67 *per cent* of funds available for allocation to a State can be used under the Coverage and Water Quality components taken together. Similarly, 'water surplus' States have the flexibility to use a lower percentage of funds under the Sustainability component with proper justification.

The position of funds available and expenditure incurred under different NRDWP components during 2012-17 is detailed in **Table-3.4**:

Table-3.4: Expenditure incurred on NRDWP components: 2012-17

(₹ in crore)

		2012-13	2013-14	2014-15	2015-16	2016-17	Total
Coverage + Water Quality + Sustainability + Operation & Maintenance							
Funds available		**20,641.83**	**20,762.96**	**19,414.34**	**12,685.35**	**13,596.42**	**79,192.75**
Central	Opening balance	2,751.58	3,346.31	2,227.56	1,541.16	793.12	
	Release	8,653.08	7,926.60	7,191.58	3,235.39	3,912.95	30,919.60
	Interest, Other deposits/ recoveries, etc.	164.35	100.08	43.89	99.90	23.40	431.62
State (Release)		9,072.82	9,389.97	9,951.31	7,808.90	8,866.95	45,089.95
Expenditure		**15,566.25**	**17,476.33**	**16,832.66**	**10,603.69**	**11,122.25**	**71,601.18**
From available Central fund		8,250.80	9,226.28	7,927.99	3,983.38	3,656.46	33,044.91
From available State fund		7,315.45	8,250.05	8,904.67	6,620.31	7,465.79	38,556.27
Percentage utilisation of available funds		**75.4**	**84.2**	**86.7**	**83.6**	**81.8**	**90.4**
Component wise expenditure from Central fund							
Coverage		5,590.24	6,442.95	5,603.26	2,645.74	2,559.47	22,841.66
Water Quality		1,053.42	816.82	752.66	447.79	461.78	3,532.47
Sustainability		628.04	703.77	537.16	356.04	174.79	2,399.80
Operation & Maintenance		979.09	1,262.75	1,034.83	533.87	460.39	4,270.93
Support Activities							
Funds available		**403.70**	**444.71**	**496.34**	**402.66**	**390.53**	**1,520.08**
Central	Opening Balance	244.82	182.58	179.78	188.17	107.22	
	Release	159.80	272.57	314.82	182.86	181.55	1,111.60
	Interest, etc.	7.11	4.49	3.71	3.27	2.43	21.01
State (Release)		0.00	2.18	1.41	31.86	107.20	142.65
Expenditure		**229.14**	**268.5**	**311.35**	**273.84**	**251.77**	**1,334.60**
From available Central fund		229.14	267.03	310.53	267.38	184.75	1,258.83
From available State fund		0.00	1.47	0.82	6.46	67.02	75.77
Percentage utilisation of available funds		**56.8**	**60.4**	**62.7**	**68.0**	**64.5**	**87.8**
Water Quality Monitoring and Surveillance (WQM&S)							
Funds available		**209.27**	**229.84**	**262.69**	**206.11**	**170.38**	**804.19**
Central	Opening Balance	92.07	102.69	74.19	94.84	67.38	
	Release	117.20	127.15	188.30	110.87	101.99	645.51
	Interest, etc.	0.00	0.00	0.20	0.40	1.01	1.61
State (release during the year)		0.00	0.00	0.00	8.82	56.18	65.00
Expenditure		**106.66**	**155.67**	**167.84**	**142.78**	**166.75**	**739.70**
From available Central fund		106.66	155.67	167.84	138.79	122.84	691.80
From available State fund		0.00	0.00	0.00	3.99	43.91	47.90
Percentage utilisation of available funds		**51.0**	**67.7**	**63.9**	**69.3**	**97.9**	**92.0**

Source: *IMIS data of the Ministry*

Note: ***1.*** *Component wise State expenditure in respect of Coverage, Water Quality, Sustainability, Operation & Maintenance were not available in IMIS data.*

2. *In respect of Coverage and Support activity, variation in opening balance/closing balance were noted in all the financial years*

It is evident that funds under the main components *viz.* Coverage, Water Quality, Sustainability and O & M remained unutilised to the extent of 13.3 to 24.6 *per cent*. Under Support activities, short utilisation of funds was between 32 and 43.2 *per cent.* Under-utilisation in WQM&S related activities was up to 49 *per cent*.

State-wise yearly position of expenditure under components of Coverage, Support Activities and WQM&S related activities is at **Annexes 3.3**, **3.4** and **3.5**. It was observed that more than 85 *per cent* of the available funds were utilised by the States under Coverage, Water Quality, Sustainability and Operation & Maintenance in all States except **Gujarat, Himachal Pradesh, Jharkhand, Punjab and Rajasthan**. Utilisation of funds under Support Activities was above 85 *per cent* in all States except **Jammu & Kashmir, Madhya Pradesh, Rajasthan, Telangana** and **Uttar Pradesh** and under WQM&S in all States except **Karnataka, Madhya Pradesh, Meghalaya, Rajasthan** and **Uttarakhand**.

The Ministry stated (February 2018) that the re-structured NRDWP guidelines would give States more flexibility as it merges support, water quality monitoring and surveillance activities and the water quality earmarked component in the coverage component.

3.3 Utilisation of funds under focused schemes

The NRDWP provides for taking up focused Drinking Water Supply Schemes in DDP areas and areas affected by natural calamities.

3.3.1 Short-utilisation of funds under the Desert Development Programme

The Desert Development Programme (DDP) of the Department of Land Resources, Ministry of Rural Development, is under implementation in 235 blocks of 40 districts in seven States[8]. Under NRDWP, 10 *per cent* of funds are allocated for Rural Water Supply schemes in DDP areas to address extreme conditions of low rainfall and poor water availability in these areas. **Table-3.5** presents the position of funds released and expenditure incurred by the States under DDP during 2012-17.

Table-3.5: Release and Expenditure under Desert Development Programme

(₹ in crore)

Year	Opening balance	Release	Available funds	Expenditure	Percentage expenditure of available funds	Closing balance
	1	2	3=1+2	4	5=4/3	6=3-4
2012-13	451.21	1,050.00	1,501.21	1,170.70	78.0	330.51
2013-14	330.51	956.63	1,287.14	1,038.87	80.7	248.27
2014-15	122.83	925.00	1,047.83	991.12	94.6	56.72
2015-16	56.72	420.96	477.68	415.45	87.0	62.25
2016-17	62.35	496.28	558.63	383.21	68.6	175.43

Source: Format D1 of IMIS data
Note: Variation in the closing and opening balances in IMIS data was not clarified.

[8] DDP covers an area of 4.58 lakh Sq. km involving population of 404.22 lakh.

As seen from above, funds allocated for utilisation for implementing schemes in the DDP areas remained unutilised at the end of each year. Substantial unutilised funds were lying with States such as **Andhra Pradesh** (₹ 37.52 crore), **Haryana** (₹ 16.40 crore) and **Rajasthan** (₹ 105.17 crore) as on March 2017.

Further, after change in funding pattern from April 2015, States[9] had not released their share of funds under DDP during 2015-17. This has also been discussed in para 3.2.3 of this Report. Under-utilisation of available fund by the States defeated the purpose of earmarking and allocation of funds for a priority area identified for focussed attention.

3.3.2 Other State specific observations

Audit noted shortcomings in the management of funds for schemes under DDP due to stoppage of work mid-way, idling of funds and diversion of funds in the States of **Andhra Pradesh** and **Himachal Pradesh** as summarised below.

Andhra Pradesh: In DDP district Anantapuram, Gorantala Mandal was selected in July 2012 for implementing a pilot project with an estimated cost of ₹ 32.06 lakh and an agreement was executed with an agency to provide technical assistance to 16 GPs to prepare and implement village/GP water security plan. Subsequently in February 2014, a revised approval for the work was accorded for ₹ 54.25 lakh. However, due to changes sought in the DPR for the pilot project, the agency stopped (June 2014) the work after incurring an expenditure of ₹ 14.10 lakh which was rendered unfruitful.

Himachal Pradesh: Despite availability of unutilised funds of ₹ 3.28 crore since 2012-13, the Ministry released additional funds of ₹ 1.90 crore to the State during 2015-17. The entire amount of ₹ 5.18 crore thereafter remained unutilised at the end of financial year 2016-17. The Ministry stated (September 2017) that the State had been asked to refund the unspent amount. Similarly, in district Kinnaur, out of an amount of ₹ 0.55 crore for DDP works received in January 2012, ₹ 0.30 crore was lying un-utilised under a deposit head (August 2017) for non-DDP blocks. In Pooh Block, ₹ 0.73 crore pertaining to DDP funds were diverted for construction of flow irrigation schemes and maintenance of water supply schemes during 2012-13 to 2015-16.

3.3.3 Non-utilisation of funds under Natural Calamity

Ministry retains two *per cent* of the NRDWP funds for providing assistance to Sates for mitigating drinking water problems in rural areas for natural calamities. Funds under this head are allocated on the basis of recommendations of Central teams that visit the

[9] Except Andhra Pradesh, Karnataka and Rajasthan which released their share during 2016-17

States in the wake of natural calamities. However, it was observed that States did not utilise funds provided to them for this purpose during 2012-17. Details are given in **Table-3.6**:

Table-3.6: Release and Expenditure under Natural Calamity

(₹ in crore)

Year	Opening balance	Release	Available funds	Expenditure	Percentage expenditure of available funds	Closing balance
	1	**2**	**3=1+2**	**4**	**5=4/3**	**6=3-4**
2012-13	164.88	83.85[10]	248.73	134.33	54.0	114.40
2013-14	115.41	95.63	211.04	97.36	46.1	113.68
2014-15	113.68	138.00	251.68	110.32	43.8	141.37
2015-16	141.13	57.60	198.73	126.85	63.8	71.89
2016-17	71.89	56.73	128.62	66.34	51.9	62.28

Source: Format D1 of IMIS data

Note: Variation in the closing and opening balances in IMIS data was noticed.

Thus, utilisation of funds allocated on account of natural calamities was only up to 64 *per cent.* Substantial unspent balances were noticed in the case of **Assam** (₹ 3.55 crore since 2015-16), **Karnataka** (₹ 3.85 crore since 2014-15), **Kerala** (₹ 15.00 crore prior to 2012-13), **Rajasthan** (₹ 5.22 crore since 2012-13), **Tamil Nadu** (₹ 7.96 crore since 2015-16) and **Uttarakhand** (₹ 19.74 crore since 2016-17[11]) as on March 2017. Since funds under the component were being provided in the wake of natural calamities, their under-utilisation raises doubts about the efficacy and promptness of efforts for restoring and maintaining water supply in the aftermath of natural calamities.

The Ministry stated (February 2018) that States have been requested to send utilisation certificate, if already utilised, or refund the unspent funds lying with them.

[10] Including ₹ 7.01 crore of other recoveries.
[11] Included ₹ 3.42 crore pertained to 2013-14

Bihar, Manipur, Nagaland and Sikkim

₹ 27 crore was provided to **Bihar** during 2008-09 under natural calamity component. Against this, the State utilised only ₹ 17.89 crore. However, information with regard to the remaining amount of ₹ 9.11 crore was not reported to the Ministry. The Ministry stated (September 2017) that State Government has been requested (April 2017) to furnish Utilisation Certificate and audit certificate for considering further release under this component.

In **Manipur**, Ministry released (September 2016) ₹ 1.23 crore for restoration of damaged rural drinking water supply system due to earthquake in January 2016. However, these funds were not released by the State Government (March 2017) for execution of works.

In **Nagaland**, PHED provided ₹ 24.18 lakh to Khonama village of district Kohima under Natural Calamity Fund during 2013-14. However, during joint physical verification, the departmental officials and the Water and Sanitation Committee members could not locate and identify the work executed.

Sikkim, which was hit by a major earthquake on 18 September 2011, was sanctioned ₹ 41.64 crore towards restoration of damaged rural water supply. Department stated that the entire funds received during 2011-12 was utilised by 2014-15. However, it was noticed that the Department had diverted ₹ 5.80 crore for other works that were not within the ambit of the Natural Calamity Fund. Further, 84 electro-chlorinators were procured at a cost of ₹ 1.18 crore for distribution to *Gram Panchayats* of South and West districts. Joint physical verification of eight *Gram Panchayats* showed (May 2017) that these were not put to use and were lying idle in dilapidated condition (May 2017).

3.4 Short-utilisation of Water Quality Funds

As per the Programme guidelines, five *per cent* of programme funds are earmarked for allocation to States with chemical contaminated quality affected habitations and bacteriological affected JE/AES[12] districts. The year wise position of utilisation of the funds earmarked for water quality affected habitations is given in **Table-3.7.**

Table-3.7: Utilisation of funds allocated under earmarked Water Quality

(₹ in crore)

Particulars	Available funds (2012-17)			Expenditure (2012-17)		
Earmarked for	**Central**	**State**	**Total**	**Central**	**State**	**Total**
Chemical	840.94	219.39	1,060.33	768.48	189.16	957.64
Bacteriological	310.72	520.53	831.25	318.47	290.99	609.46
Total	**1,151.66**	**739.92**	**1,891.58**	**1,086.95**	**480.15**	**1,567.10**

Source: *IMIS data of the Ministry*

[12] Japanese Encephalitis/Acute Encephalitis Syndrome (JE/AES)

During 2012-17, both Central and State funds earmarked for chemically and bacteriological affected habitations were utilised only to the extent of 82.8 *per cent*. State-wise position of release and expenditure of these funds is given in **Annexe-3.6**. Audit noted that more than 25 *per cent* of the available funds remained unutilised in six States {**Andhra Pradesh** (48.7 *per cent*), **Maharashtra** (38.7 *per cent*), **Odisha** (79.5 *per cent*), **Rajasthan** (32.4 *per cent*), **Tamil Nadu** (26.9 *per cent*) and **Uttar Pradesh** (26.9 *per cent*)} during this period.

3.5 Funds lying unspent under *Jalmani*

With the objective of providing children studying in water quality affected rural schools with safe and clean drinking water, ₹ 200 crore was provided to 29 States during 2008-10 under the programme *Jalmani*.

Audit observed that expenditure of ₹ 121.73 crore had been incurred on installation of 1.08 lakh standalone water purification systems by 2013-14. Thereafter, no expenditure on account of *Jalmani* was incurred and balances of ₹ 78.27 crore was outstanding with 20 States as of July 2017.

Ministry stated (February 2018) that the amount lying with States was reduced to ₹ 49.73 crore and efforts were being made to recover the unspent amount with interest and also obtain reasons for non-utilisation of funds.

3.6 Other financial irregularities

3.6.1 Delayed release of funds by the State Government

Programme guidelines[13] stipulate that States shall release the entire Central share received along with the matching State's share to the implementing agency i.e. SWSM without any delay and in any case not later than 15 days after receipt of funds. Further, as per the conditions attached to the release of Central allocation, in case of any delay beyond stipulated period, a penal interest of 12 *per cent* per annum for the period of delay shall be transferred by the State Government to the implementing agency along with the principal amount.

Audit observed that transfer of Central share along-with State's matching share of ₹ 9,388.89 crore to the implementing agency was delayed by periods up to 478 days in 19 States. However, in none of these cases was penal interest transferred to the implementing agencies. State-wise details are given in **Annexe-3.7.**

In **Andhra Pradesh,** Central share of ₹ 26.62 crore received in March 2017 was not transferred along with State's matching share to SWSM as of May 2017. **Assam**

[13] Para 17(s)

(₹ 120.16 crore) and **Goa** (₹ 0.25 crore) did not transfer Central share amounting to ₹ 120.41 crore to their implementing agency as of March 2017.

3.6.2 Non-accountal/loss of interest of ₹ 448.84 crore

Programme guidelines[14] require that money accruing as interest in the programme and support accounts shall be credited to the same account and reflected as available funds in the Utilisation Certificate for the year.

Audit observed that ₹ 117.15 crore earned as interest in four States {**Andhra Pradesh** (₹ 4.31 crore[15]), **Assam** (₹ 0.20 crore), **Gujarat** (₹ 1.63 crore), **Karnataka** (₹ 111.01 crore)}, was neither accounted for in the respective accounts nor shown in utilisation certificates.

Audit also observed that the Programme suffered a loss of interest amounting to ₹ 331.69 crore in four States as discussed below:

In **Jammu & Kashmir,** ₹ 0.41 crore earned as interest on NRWDP funds was remitted into the treasury in August 2016 instead of accounting the same in NRDWP fund. In **Karnataka,** though the agreement with the implementing agency and the bank provided for investment of surplus funds in fixed deposits, this was not done leading to a loss of interest of ₹ 260.49 crore. In **Maharashtra**, funds transferred to Zila Parishad for operation and maintenance were not kept in a separate bank account as a result of which interest earned was not worked out and credited into the programme account. Further, interest of ₹ 0.08 crore earned by the works executing divisions was remitted to the State Government instead of crediting it into the programme account. In **Uttar Pradesh**, UP Jal Nigam kept programme funds and support funds in 11 bank accounts and earned interest of ₹ 70.71 crore during 2012-17. The interest earned was transferred to its revenue account and subsequently spent on establishment expenditure instead of being credited to the programme account for utilisation on the Programme.

3.6.3 Inadmissible expenditure and diversion of funds

As per Programme guidelines[16], expenses such as cost escalation, tender premium, and items for which the State Government was responsible were not eligible for funding under NRDWP and were to be met by the State Government.

In **21 States**, programme funds amounting to ₹ 358.59 crore was diverted and utilised for ineligible purposes such as purchase of land, tender premium, office expenses,

[14] Para 16.10
[15] Includes ₹ 0.50 crore earned as interest by DWSMs and loss interest of ₹ 0.16 crore due to deposition of ₹ 2.70 crore in non-interest bearing account by RWS&S division, Kovvuru of West Godawari.
[16] Para 16.5

creation of inadmissible assets, purchase of vehicles, renovation works and centage charges as detailed in **Annexe-3.8**.

As per the guidelines, **Odisha** which had average rainfall of less than 1,500 mm and was thus a water stressed State was not entitled to divert funds under Sustainability Component to coverage and water quality component. However, audit observed that ₹ 14.19 crore of Sustainability Component funds was diverted for coverage, water quality works and O & M during the period covered by audit.

In five States (**Arunachal Pradesh**, **Assam**, **Bihar, Gujarat** and **Telangana),** exemption from payment of excise duty amounting to ₹ 22.37 crore[17] on purchase of pipes of more than 100 mm dia, was not availed leading to avoidable expenditure.

In **Odisha**, ₹ 1.50 crore was deducted by the bank towards TDS on the interest earned during 2013-14 as the State Authority did not obtain exemption from payment of income tax.

The diversion of funds indicated weak internal controls on the part of State Governments.

3.6.4 Audit of SWSM accounts

Programme guidelines[18] stipulated that SWSM had to ensure that accounts were audited by a chartered accountant selected from a panel approved by the Comptroller and Auditor General of India within six months of the close of the financial year. This account would be supported by a statement of reconciliation with the work executing departments' accounts and a certificate of the chartered accountant as to its accuracy. Further, Utilisation Certificate should be submitted by the competent authority of the concerned Department.

Audit observed that discrepancies in SWSM Accounts such as non-matching figure of expenditure IMIS figures, non-maintenance of cash book, variation in opening and closing balances, inflated expenditure, non-segregation of expenditure from Programme Funds as detailed below:

Andhra Pradesh: Financial figures reported in the audit reports of the chartered accountant did not match with the IMIS figures. Further, the implementing agency (Rural Water Supply and Sanitation Department) did not maintain cash book for funds under the Programme. As such, the correctness of releases and expenditure and inter component transfer of programme funds were not verifiable.

[17] **Arunachal Pradesh** (₹ 1.68 crore), **Assam** (₹ 12.71 crore), **Bihar** (₹ 6.04 crore)**, Gujarat** (₹ 1.02 crore) and **Telangana** (₹ 0.92 crore)

[18] Para 18

Bihar: Auditor's report was not as per the prescribed guidelines. There were variations in opening balance, receipt, expenditure and closing balance of the Central share as compared with the cash book and IMIS data.

Himachal Pradesh: Chartered Accountants in their Audit Reports for 2012-13 to 2015-16 pointed out that divisions were maintaining a common cash book and other records for all the transactions of the divisions without segregating transactions related to the Programme funds. Further, the Divisions were booking the entire expenditure under one component i.e. Normal Coverage and was not classifying expenditure under different components of the Programme.

Jharkhand: Accounts were not being prepared and audited by chartered accountants and bank reconciliation statements were also not being prepared.

Karnataka: Multiple bank accounts had been opened as discussed in case study under para 3.2.2 above, chartered accountants stated that the State Government did not submit details of these accounts and component wise fund flow statements during any of the years. Hence, the accounts were certified based on utilisation certificates and balance confirmation slips issued by the banks. Further, the format specified for utilisation certificates was not adhered in the State and did not have component wise details of achievements against targets.

Rajasthan: Only funds lying in the SWSM accounts was covered under audit by the chartered accountant. Hence, funds transferred to departmental executing agencies from April 2014 onwards without routing through SWSM accounts remained unaudited. Further, utilisation certificates furnished by the State Government did not show expenditure from the State's share of funds.

3.7 Unspent balance/blocking of funds

Test check of records of State Governments revealed that ₹ 304.02 crore was lying with SWSM and work executing agencies despite subsuming of earlier schemes (*Swajaldhara)* or completion of works as discussed below:

Gujarat:

Case 1: Water and Sanitation Management Organisation (WASMO) released ₹ 57.10 crore to GWSSB for undertaking water supply projects in seven villages of Rajkot Urban Development Authority area in March 2011 stating that it had never executed such a large scale project earlier. GWSSB, which was also executing project for State plan scheme, did not execute the work and refunded ₹ 46.53 crore till April 2017 and ₹ 10.92 crore (including interest) of NRDWP fund remained blocked with GWSSB.

Case 2: In three selected districts (Junagarh, Narmada and Panchmahal), 22 VWSCs did not refund the unspent amount of ₹ 0.15 crore after completion of assigned works.

Case 3: In two selected districts (Bhavnagar and Narmada), VWSCs withdrew ₹ 0.23 crore[19] from the bank but they neither executed the work nor refunded the amount.

Himachal Pradesh:

Case 1: NRDWP funds of ₹ 44.77 crore was transferred (2010-11) to Himachal Pradesh Civil Supplies Corporation (HPCSC) for purchase of pipes and ₹ 41.66 crore was transferred to various divisions without specifying the works to be undertaken. The amount released for purchase of pipes was lying unadjusted as status of receipt of pipes and adjustment account from HPCSC was awaited (August 2017).

Case 2: In districts Shimla and Kinnaur, ₹ 0.16 crore lying in saving bank account of Executive Engineers since 2014-15 was not accounted for in closing balance of NRDWP.

Case 3: ₹ 0.98 crore pertaining to *Swajaldhara* programme which was mainstreamed in the NRDWP in 2009 was lying unutilised with DWSM Kangra district.

Jammu & Kashmir: In four Divisions,[20] ₹ 4.07 crore was lying unutilised with the bank since April 2014. The concerned Executive Engineers stated that the fact will be brought to the notice of Chief Engineer for utilising the funds.

Karnataka:

Case 1: Programme fund of ₹ 36.53 crore released to 19 Zila Panchayats for implementation of water supply scheme was lying in their respective bank accounts despite State Government instructions of March 2011 and May 2011 to remit back the unutilised amounts to Programme fund.

Case 2: In district Chamarajanagar, balance amount of ₹ 1.05 crore after completion of two water supply works in March/August 2013 was still to be recovered from Karnataka Rural Infrastructure Development Limited.

Uttar Pradesh: *Swajaldhara* scheme fund of ₹ 163.50 crore lying unutilised in two bank accounts of SWSM despite the scheme subsumed with NRDWP in 2009.

[19] During 2005-06 ₹ 0.08 crore, 2008-09 ₹ 0.13 crore and 2010-11 ₹ 0.46 crore.
[20] Executive Engineers, GWD, Jammu; PHE division Leh; PHE division Kupwara and PHE division Kargil

3.8 Audit summation

The Central budget allocation for the Programme during 2012-2017 was ₹ 40,111 crore of which ₹ 39,501 crore was released to the States. The allocations for the Programme and releases to the States declined in the last two years of the period covered by audit. The expectation that States would be able to compensate for this reduction either through their own resources and the increased devolution of funds or by accessing internal or external funding agencies were not met. As a result, the overall availability of funds for the Programme decreased from ₹ 23,577 crore in 2013-14 to ₹ 16,931 crore in 2016-17. Moreover, even the reduced allocations were not fully utilised and the percentage of available fund that remained unutilised each year during the period 2012-17 ranged from 16 to 26 *per cent*.

Further, the stipulated fund flow mechanism was not followed in **11 States** where funds released by the Centre and the State were not routed through SWSM. In **four States**, the Programme suffered interest loss of ₹ 331.69 crore. There was diversion of funds amounting to ₹ 358.59 crore towards inadmissible items of expenditure in **21 States** while ₹ 304.02 crore was lying unspent/blocked at various levels in **five States** despite closure of schemes and completion of works.

Hence, the management of Programme funds suffered from under-utilisation, short release, diversion and blocking of funds. Further, the laid down fund flow mechanism was not adhered to as SWSMs were bypassed which undermined their role as an apex body for guiding and monitoring the Programme.

Chapter-IV Programme Implementation

4.1 Introduction

NRDWP is being implemented in the States through its six components comprising Coverage; Water Quality; Operation & Maintenance; Sustainability; Support and Water Quality Monitoring & Surveillance. In addition, funds are also being provided for water quality affected habitations, Desert Development Programme Areas, Natural Calamity and other sub-missions under the Programme. The component-wise fund availability and expenditure therefrom has been discussed in **Chapter-3**. This chapter contains audit findings relating to implementation of the various components of NRDWP during the period covered by this audit exercise.

4.2 Coverage

Under NRDWP schemes, piped water supply schemes[1], handpumps, tube wells, borewells, etc., were taken up to provide safe drinking water to rural habitations. Upto the 11th Plan period, habitations provided with a minimum of 40 lpcd of safe drinking water were considered as fully covered. In the 12thPlan, a minimum norm of provision of 55 lpcd has been adopted as an interim measure.

4.2.1 Status of coverage of habitations

Audit observed that despite the increase in norms of 55 lpcd for treating habitations as fully covered, the old norm of 40 lpcd was adopted for treating habitations as fully covered. Taking into account both the 40 and 55 lpcd norms, the overall status of coverage of habitations in terms of fully covered is detailed in **Table-4.1** below:

Table-4.1: Status of coverage of habitations

As on April	Total habitations	Fully covered habitations		Percentage of fully covered	
		40 lpcd	55 lpcd*	40 lpcd	55 lpcd*
2009	16,58,205	11,48,920	--	69.29	--
2010	16,60,940	11,66,448	--	70.23	--
2011	16,64,068	11,66,816	--	70.12	--
2012	16,65,957	12,31,393	6,57,693	73.92	--
2013	16,92,133	11,61,018	7,26,395	68.61	38.87
2014	16,96,546	12,49,695	7,42,121	73.66	42.82
2015	17,13,185	12,70,199	7,68,958	74.14	43.32

[1] single village piped water supply scheme (SVPWSS) and multi-village piped water supply scheme (MVPWSS)

As on April	Total habitations	Fully covered habitations		Percentage of fully covered	
		40 lpcd	55 lpcd*	40 lpcd	55 lpcd*
2016	17,14,438	12,97,431	7,65,833	75.68	44.85
2017	17,26,031	13,25,302	6,57,693	76.78	44.37

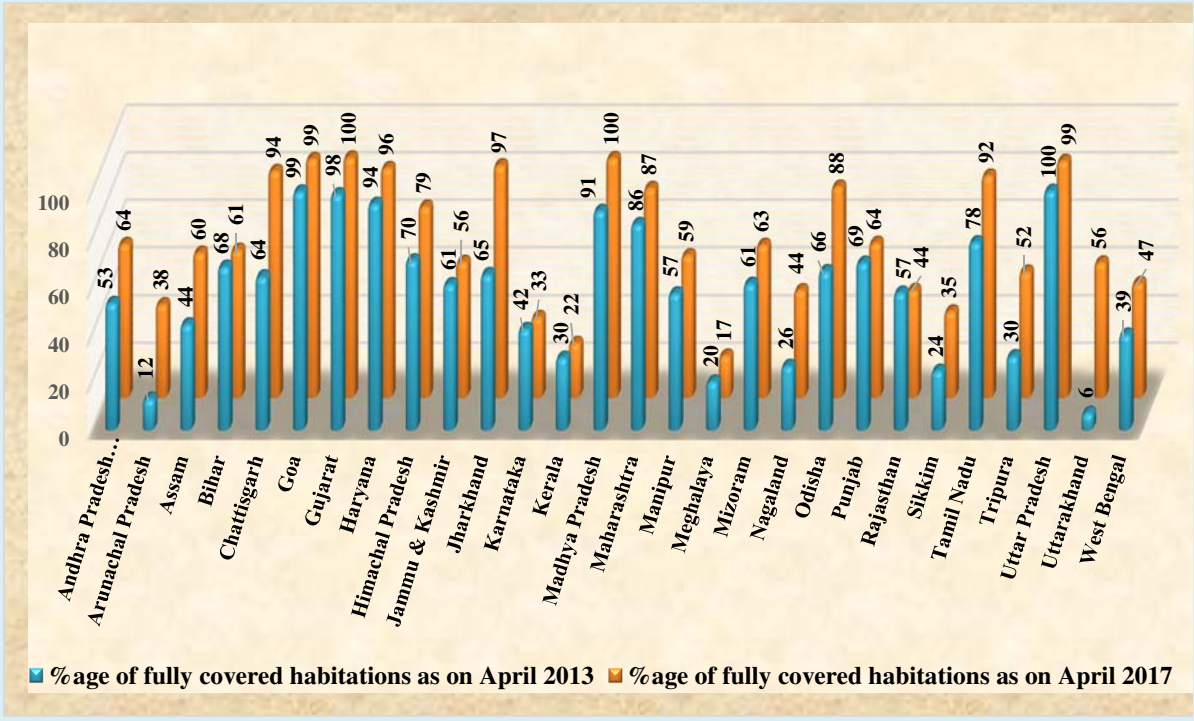
Source: IMIS data of the Ministry

** IMIS data on 55 lpcd available from April 2013*

While the percentage of fully covered rural habitations to the total habitations with 40 lpcd increased from 69 (2013) to 77 *per cent* (2017), the coverage was increased from 39 *per cent* in April 2013[2] to 44 *per cent* in April 2017 based on the norms of 55 lpcd. Either way, the target of coverage of 100 *per cent* of rural habitations by 2017 remained unachieved. The percentage of coverage of rural habitations increased by only eight *per cent* at 40 lpcd and 5.5 *per cent* at 55 lpcd after incurring expenditure of ₹ 81,168 crore on the programme.

The State-wise percentage of fully covered habitations as on April 2017 in comparison to April 2013 based both on the norms of 40 lpcd and 55 lpcd is depicted in **Chart-4.1 and 4.2** respectively:

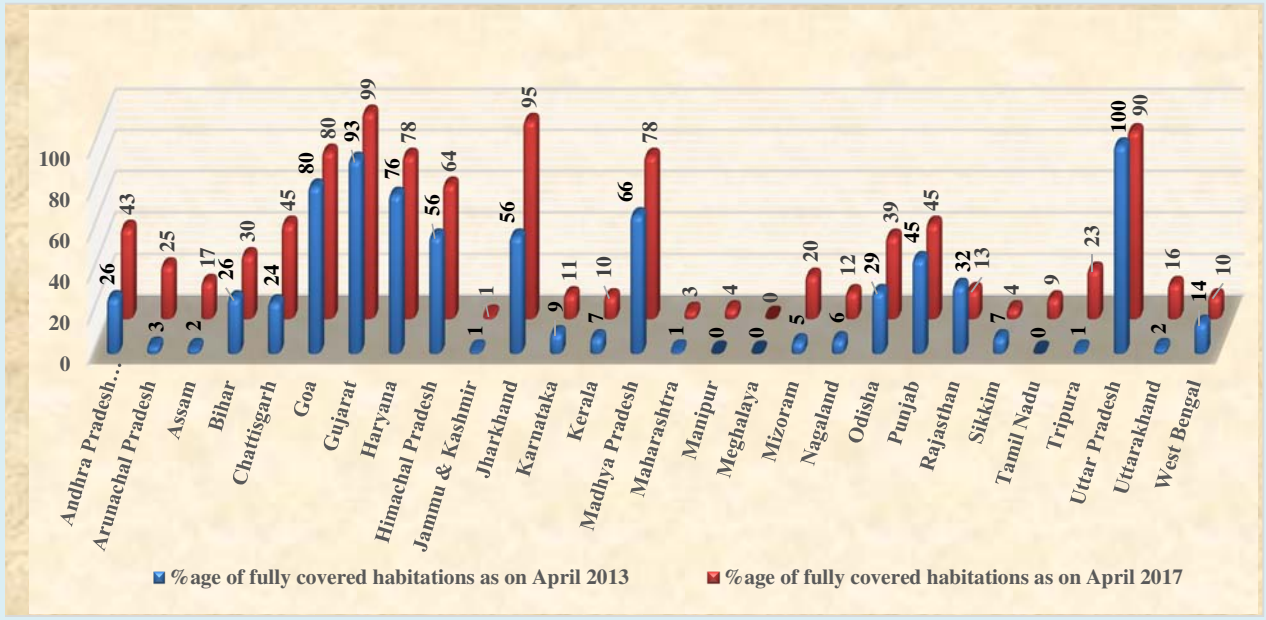
Chart-4.1: Fully covered habitations at 40 lpcd (in percentage)



Source: IMIS data of the Ministry

[2] Data for 55 lpcd was captured in IMIS from 2013-14 onwards.

Chart-4.2: Fully covered habitations at 55 lpcd (in percentage)



Source: IMIS data of the Ministry

Based on the norm of 40 lpcd, the percentage of fully covered habitations decreased in April 2017 in eight States (**Bihar, Jammu & Kashmir, Karnataka, Kerala, Meghalaya, Punjab, Rajasthan** and **Uttar Pradesh)** as compared to April 2013. Based on the norm of 55 lpcd, the percentage of fully covered habitations decreased in four States (**Rajasthan, Sikkim, Uttar Pradesh** and **West Bengal)** in April 2017 when compared to status as of April 2013.

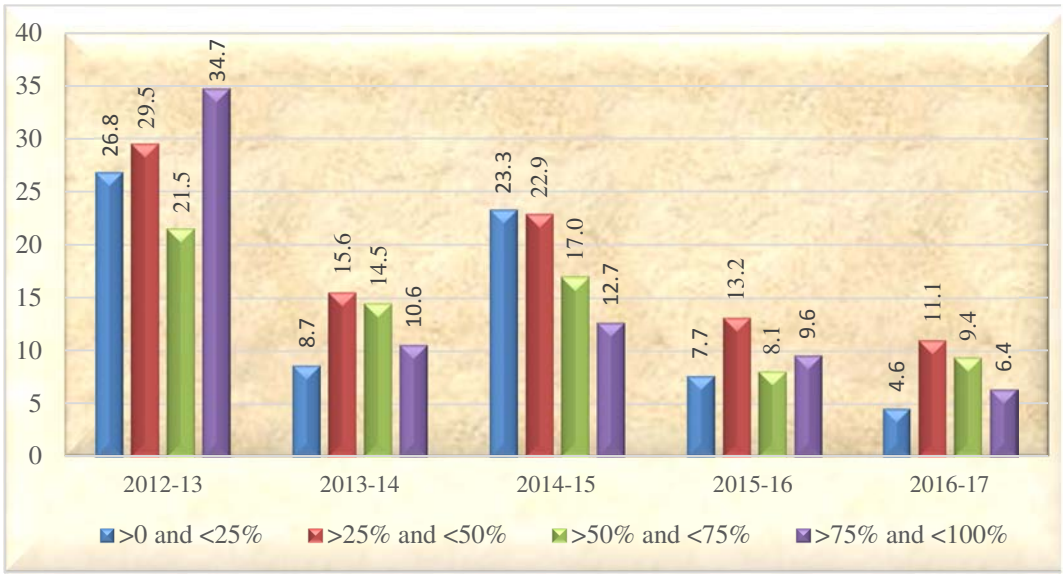
4.2.2 Non-prioritisation of habitations based on water availability and failure to meet targets

As per the Programme guidelines, priority was to be given to the habitations where less than 25 *per cent* and 25 to 50 *per cent* population have access to adequate safe drinking water.

Audit observed that in all the years except 2014-15, coverage of habitations falling in the category with less than 25 *per cent* population having access to adequate safe drinking water was lower as compared to coverage of habitations falling in categories with higher percentage of population having access to safe drinking water as shown in **Chart-4.3**:

Chart-4.3: Priority in coverage of partially covered habitations

(as percentage of total habitations under the respective category)



Source: IMIS data of Ministry
Note: coverage targets was with respect to 40 lpcd of drinking water

Test check of records in States also brought out that priority in coverage was not given to habitations in 16 States i.e. **Andhra Pradesh, Assam, Bihar, Chhattisgarh**[3]**, Jammu & Kashmir, Karnataka, Maharashtra, Manipur, Mizoram, Nagaland, Rajasthan, Sikkim, Telangana, Tripura, Uttar Pradesh** and **Uttarakhand** where less than 50 *per cent* of the population had access to adequate quantity of safe drinking water.

Further, there was also a shortfall in achievement *vis a vis* targets for covering habitations in three categories of habitations i.e. up to 25 *per cent*, 25 to 50 *per cent* and 75 to 100 *per cent*. The percentage shortfall was higher in the habitations which should have been prioritised for coverage as detailed in **Table-4.2**

Table-4.2: Target and achievement of coverage of habitations

2012-17	> 0 and < 25%	> 25% and < 50%	>50% and < 75%	> 75 and < 100 %
Target habitations	51,918	79,653	73,352	72,176
Achievement	42,709	68,990	75,049	69,774
Shortfall	9,209 (17.7%)	10,663 (13.4%)	---	2,402 (3.3%)

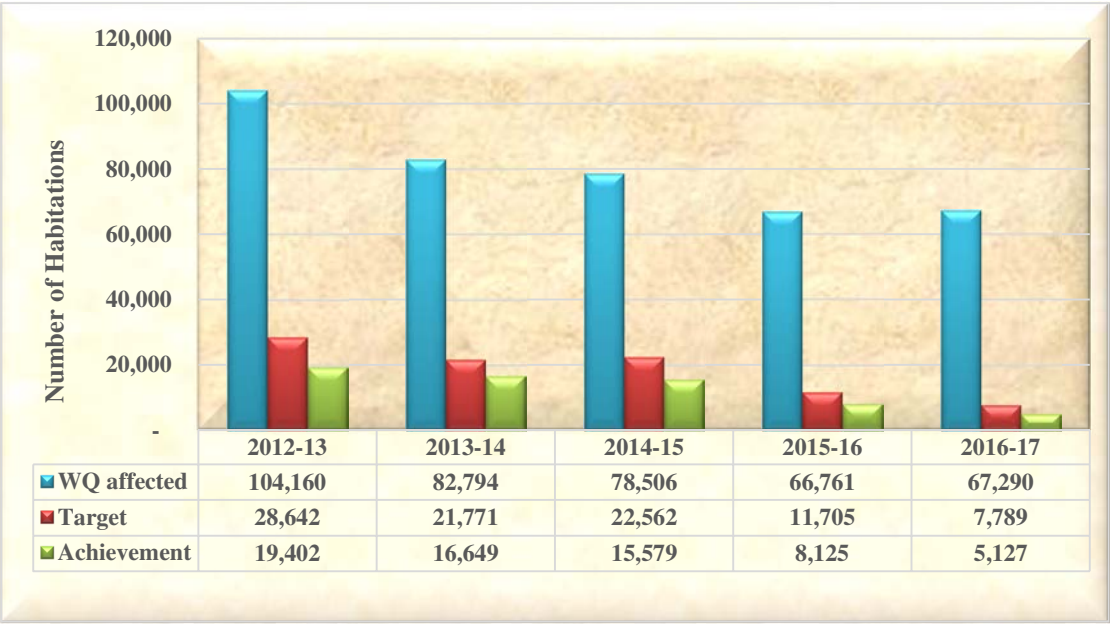
[3] In three districts – Kawardha, Bastar and Surajpur

It was evident that the implementation plans were not being prepared as per the guidelines and resources were not being focussed on segments of the rural population where availability of safe drinking water was the lowest.

4.2.3 Shortfall in prioritisation and non-achievement of targets for quality affected habitations

The Programme guidelines stipulates that priority should be given to quality affected habitations while finalising the annual action plans. It was however noted that less than 30 *per cent* of quality affected habitations were targeted under the Programme during the period 2012-15. The targets with respect to this category of habitations were further reduced to less than 20 *per cent* during the last two financial years. There were also shortfalls in achievement ranging between 23 and 34 *per cent* against the targets for covering quality affected habitations as given in **Chart-4.4** below**:**

Chart-4.4: Target and achievement of water quality affected habitations



	2012-13	2013-14	2014-15	2015-16	2016-17
WQ affected	104,160	82,794	78,506	66,761	67,290
Target	28,642	21,771	22,562	11,705	7,789
Achievement	19,402	16,649	15,579	8,125	5,127

Source: IMIS data of Ministry

Lack of prioritisation, reduction in targets and shortfall in achievement were indicative of inadequate focus both in planning and implementation of schemes to address water quality issues.

Ministry stated (February 2018) that chemical contamination in drinking water sources was geo-genic in nature but did not explain the reduced/low coverage of quality affected habitations under the Programme and shortfalls with respect to targets.

4.2.4 Implementation of water supply schemes

Analysis of data in IMIS[4] shows that 12,38,642 schemes[5] including 3,89,295 piped water schemes were taken up for execution during 2012-17. Including 1,39,525 on-going schemes as on 1 April 2012, there were a total of 13,78,167 schemes which were being executed during the period. Against this, a total of 12,43,723 schemes comprising 4,13,430 piped water schemes and 8,30,293 schemes based on handpumps/borewells/ tube wells, were completed during 2012-17 as given in **Table-4.3**:

Table-4.3: Number of water supply schemes

Year	PWS and Hand Pumps/Borewells Schemes				PWS				Percentage of PWS	
	On-going	Taken up	Completed	Pending/ on-going	On-going	Taken up	Completed	Pending/ on-going	Taken up	Completed
2012-13	139525	342908	329051	153382	81826	119000	104226	96600	34.70	31.67
2013-14	153382	341046	340975	153453	96600	120744	108271	109073	35.40	31.75
2014-15	153453	310618	309879	154192	109073	88732	97285	100520	28.57	31.39
2015-16	154192	157480	208256	103416	100520	43892	76553	67859	27.87	36.76
2016-17	103416	86590	55562	134444	67859	16927	27095	57691	19.55	48.77
Total		**1238642**	**1243723**			**389295**	**413430**		**31.43**	**33.24**

Source: IMIS Data of Ministry

Ministry, while communicating[6] (January 2016) the revised funds sharing pattern between Centre and States, placed restrictions on taking up new projects except in fluoride and arsenic affected habitations and habitations under the *Sansad Adarsh Gram Yojana* in view of the outstanding liabilities relating to ongoing projects. This led to a sharp decline in the number of new schemes taken up during 2015-16 and 2016-17. The percentage of schemes completed as a percentage of schemes on hand[7] reduced from 67-68 *per cent* during 2012-13 to 2015-16 to 29 *per cent* in 2016-17.

In the 12th Plan (2012-17), emphasis was placed on Piped Water Supply (PWS) Schemes. The percentage of PWS to the total schemes[8] taken up during 2012-17 ranged between 19 and 35 *per cent* and had been declining year on year during the period. There was also a decline in the absolute numbers of PWS being taken up. It can therefore be concluded that the focus on PWS envisaged in the 12th Plan was not reflected in actual planning and implementation.

[4] Format B-22 as on 26 February2018
[5] Piped water and Hand Pumps/Bore well schemes only
[6] MoDWS's letter number W-11011/36/2015-water dated 1 January 2016.
[7] Ongoing + taken up schemes
[8] Piped water and hand pump/tube well schemes based on 40 lpcd

Another important target set out in the Strategic Plan and Programme guidelines was that at least 50 *per cent* of rural population[9]will be provided with at least 55 lpcd of piped drinking water within their household premises[10] by 2017. Audit observed that only 18.4 *per cent* of the rural population had been covered under PWS schemes with provision of 55 lpcd of drinking water as of December 2017 which was well below the projected target. The position with regard to percentage of population covered under PWS and population without PWS as on 31 December 2017 is given in **Table-4.4**:

Table-4.4: Population covered with PWS schemes (December 2017)

Total population		Covered with PWS			Without PWS
		Fully covered	Partially covered	Quality affected	
Population(*in lakh*)	9,199.0	1,688.7	3,167.9	322.0	4,020.4
Population (*in percentage*)	--	18.4	34.4	3.5	43.7

Source: IMIS data of Ministry

The Strategic Plan and Programme guidelines also envisaged that at least 35 *per cent* of rural households would have individual household drinking water connection by 2017. In terms of rural households, out of a total of 17.91 crore rural households, only 3.02 crore i.e. 16.85 *per cent* were covered by piped water connections as of December 2017. The position of coverage of rural households by piped water supply connections varied widely among different States as shown in **Table-4.5**:

Table-4.5: Status of households with piped water connections

Five top States with largest coverage of rural households by piped water connections.	Coverage (in *per cent*)	Five States with least coverage of rural households by piped water connections.	Coverage (in *per cent*)
Sikkim	99.32	Uttar Pradesh	**0.53**
Gujarat	72.82	West Bengal	**0.67**
Himachal Pradesh	56.62	Meghalaya	**1.15**
Haryana	47.68	Bihar	**1.22**
Punjab	**47.56**	Assam	**2.05**

Source: IMIS data of the Ministry

Further, the coverage of rural households by piped water connections was below the national average of 16.85 *per cent* in 17 States of **Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Jharkhand, Kerala, Madhya Pradesh, Manipur, Meghalaya,**

[9] As per Strategic Plan, 55 *per cent* of rural households were to be covered with PWS.

[10] or at a horizontal or vertical distance of not more than 100 meters from their household without barriers of social or financial discrimination.

Mizoram, Nagaland, Odisha, Rajasthan, Tripura, Uttar Pradesh, Uttarakhand and **West Bengal**.

Gujarat

945 villages in seven districts were covered under various schemes executed and completed between 2012 and 2017. Audit observed that 142 villages were not getting water due to technical problems such as low water pressure at tail end villages, non-availability of necessary infrastructure and lack of internal pipeline network in the village.

In three out of the ten selected districts, 17,47,075 thousand litres of water was supplied through tankers to four to 193 villages during 2012-13 to 2016 17 due to non-availability/insufficient availability of potable water. However, as per State records all the habitations were fully covered.

Findings of Audit Survey

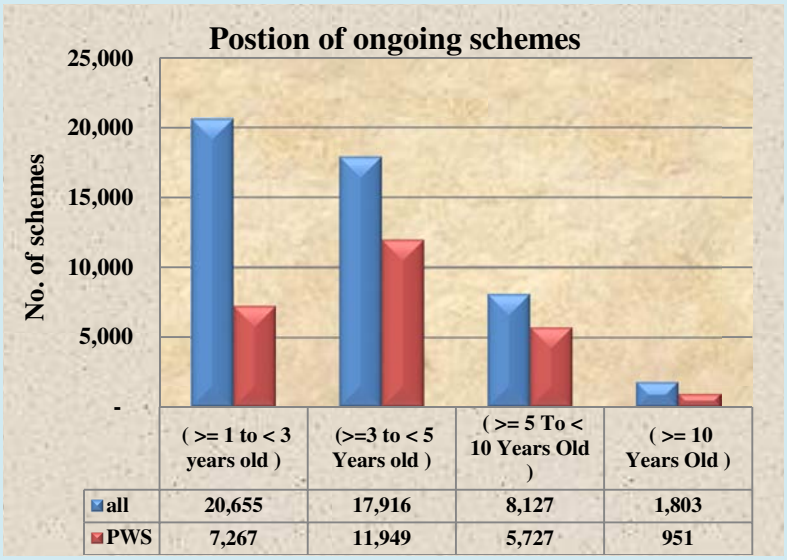
- 139 habitations out of a sample of 2,322 were categorised as fully covered though water supply availability was less than 40 lpcd.
- 3,422 out of 28,586 beneficiaries (12 *per cent*) reported that water supply schemes were non-functional. This included 572 beneficiaries drawing drinking water through household connections and 2,850 through community connection.
- In district Kaimur (Bhabua) of **Bihar**, the piped water supply scheme (Bhangwanpur PSW in Tori *Panchayat*) was closed in the summer season due to drying of river. Further, beneficiaries of the PWS stated that water pressure was very low and water supply was irregular.

4.2.5 Delay in completion of water supply schemes

As per IMIS[11], there had been no delay in case of 10,937 schemes out of 22,617 ongoing schemes whose status was updated on IMIS while the balance 11,680 schemes were delayed for reasons shown in **Chart-4.5:**

[11] As on 14 December 2017

Chart-4.5: Delay in completion of schemes



Reasons for delay[12]	No. of schemes
Lack of funds	4,947
Schemes not taken up	1,747
Statutory clearance awaited	1,273
Source related problems	932
Non-availability of land	648
Material not-available	426
Dispute over laying pipeline	389
Contractual/arbitration and other problem	364
Tender related problems	409
Transport/inaccessibility problem	321
Electricity/Power problem	224

Thus, 57.31 *per cent* schemes were delayed due to administrative reasons, 19.78 *per cent* due to site related reasons, 11.63 *per cent* due to construction related issues, 6.62 *per cent* due to contract related issues and 4.67 *per cent* schemes were delayed due to infrastructure issues.

4.2.6 Incomplete works

Test check of records in selected divisions revealed that 437 works with estimated cost of ₹ 4,293.49 crore remained incomplete in **16 States** after incurring an expenditure of ₹ 1,667.46 crore[13] (March 2017). These works remained incomplete due to pending tunnelling work, lack of permissions/clearances from concerned authorities, land disputes, non-execution of works by contractors, paucity of funds, change in source of water supply and non-availability of material as detailed in **Annexe-4.1**. This reflected non-adherence to codal provisions relating to execution of works such as requirement of ensuring encumbrance free site and timely obtaining of required statutory clearances before award of works, proper site surveys and investigations to ensure preparation of realistic designs and estimates to facilitate unhindered execution of works as well as administrative laxity and lack of concern for their timely completion. Some illustrative cases are discussed below:

Andhra Pradesh: J C Nagi Reddy Drinking Water Supply Project planned with Gandikota reservoir as source for water drawal was administratively approved in May 2006 at a cost of ₹ 508 crore. The scheme was taken up for execution in June 2007 with

[12] As per IMIS (A-8) 13 December 2017
[13] In respect of 417 works

target date of completion as October 2009. However, the scheme remained incomplete due to non-completion of tunnelling work from Owk reservoir to Gandikota reservoir. State Government directed in November 2013 to have two water sources (Gandikota and Mid Pennar dam) for commissioning of the scheme. However, this did not materialise. Thus, the scheme taken up in June 2007 to provide water to 561 habitations was yet to be completed even after ten years and incurring expenditure of ₹ 365.88 crore.

Assam: Ten works in Hailkandi (four schemes) and Jorhat (six schemes) divisions taken up for execution between March 2013 and June 2014 at an estimated cost of ₹ 136.24 crore with scheduled date of completion between November 2015 and February 2017 remained incomplete due to non-execution/slow progress of works by the contractors. Non-completion of schemes rendered unfruitful the expenditure of ₹ 70.33 crore incurred so far besides depriving 1,37,088 population of the intended benefit of safe and adequate drinking water.

Bihar: In Patna District, work for construction of 8.95 Million Litre per day (MLD) capacity surface water supply scheme for 45 arsenic affected habitations at Maner was taken up in June 2009 at a cost of ₹ 62 crore and was to be completed by June 2011. After laying of 75.28 kilometres of pipes upto March 2011, the source of water was changed to ground water due to non-availability of land required for construction of different structures. As per the revised agreement for the scheme executed in December 2016, the work was to be completed by August 2017 but due to slow progress, the agreement was rescinded in July 2017. An expenditure of ₹ 45.35 crore had been incurred on the work. Incomplete work deprived 1.70 lakh population in 45 arsenic affected habitations from getting potable water even after lapse of more than eight years.

Himachal Pradesh: Source level augmentation of 41 schemes to partially covered habitations in Sadar, Gumarwin and Jhanduta Blocks in district Bilaspur with water source from Kol Dam reservoir was technically sanctioned in July 2009 for ₹ 47.08 crore. The work was awarded to a contractor in June 2010 at a cost of ₹ 49.62 crore to be completed by July 2012. The work however remained incomplete after incurring expenditure of ₹ 38.99 crore for want of installation of pumping machinery as erection of electric transformer by State Electricity Board was held up due to site dispute with private land owner.

Jharkhand: In district Sahibganj, a mega water supply scheme for 58 villages in four blocks under quality affected component was taken up in July 2012 at a cost of ₹ 133.68 crore for completion by July 2014. The scheme remained incomplete after incurring

expenditure of ₹ 117.67 crore (June 2017) due to non-availability of required land and "No Objection Certificates" from other State Government departments. The cost of the scheme was increased to ₹ 147.93 crore with extended target date of completion as March 2017.

In district West Singhbhum, 253 PWS schemes (Chaibasa-181 and Chakradharpur-72) were taken for execution during 2012-14 to be completed within three months from the date of agreement. However, these schemes too remained incomplete (May 2017) after incurring expenditure of ₹ 27.40 crore. No final measurement and completion certificate was recorded in the Measurement Books. A district level committee consisting of Assistant Collector and Sub Divisional Officer examined 98 schemes (Chaibasa-64 and Chakradharpur-34) and Superintendent Engineer examined 32 schemes (Chaibasa) and reported damaged pipelines, electrical problems, damaged tank, sub-standard work, defective construction and using PVC rising pipes in place of GI rising pipes (March 2017).

Karnataka: In four districts (Bagalkot, Gadag, Yadgir and Chitradurga), six works to provide safe drinking water to 86 villages were taken up for execution at an estimated cost of ₹ 53.20 crore between 2007-08 and 2012-13 for completion between September 2009 and December 2016. These works remained incomplete for want of required land, necessary permission from railway authorities, National Highway Authority and Forest Department after incurring expenditure of ₹ 42.59 crore. Further, in three districts (Bagalkot, Gadag and Tumakuru), five[14] water supply schemes to provide safe drinking water to 86 villages were taken up during 2007-08, 2011-12 and 2012-13 for execution at an agreed cost of ₹ 42.95 crore. These works also remained incomplete due to failure of the department to ensure definite and perennial source of water even after incurring expenditure of ₹ 39.56 crore.

Rajasthan: Work to provide safe drinking water to 1,698 villages of district Bhilwara under Chambal-Bhilwara Project Phase-II was sanctioned in March 2013 at ₹ 1,495.68 crore. The work was awarded in four packages at a cost ₹ 1,263.63 crore for completion by October 2016. All the four packages were stopped by the contractor between January 2015 and May 2016 and remained incomplete despite incurring an expenditure of ₹ 204.30 crore. In district Phulera, water supply scheme for 173 villages was awarded in July 2013 to a firm at a cost of ₹ 226.95 crore to be completed by January 2016. However, the work was lying incomplete since December 2016 after incurring

[14] Metagud and seven other villages, Asuti and six other villages, Gulur and 16 other villages, CS Pura and 34 other villages and Ariyur and 26 other villages

expenditure of ₹ 115.68 crore as supply of material for work was held up due to non-payment to supplier by the firm.

Telangana: Nine works in districts Mahabubnagar, Nalgonda and Khammam were taken up between April 2012 and April 2016 at a cost of ₹ 251.92 crore for completion between October 2013 and July 2016. These works remained incomplete (March 2017) after incurring expenditure of ₹ 152.51 crore due to reasons such as non-obtaining of clearances from Forest Department, defective designing, electric power connection, revision of estimates, handing over site to the contractor, delay in approval of design and drawing, non-obtaining permission for road cutting from Panchayat Raj Department and non-obtaining approval for blasting of rock portion in pipeline alignment.

In Nalgonda district, a CPWS scheme in Suryapet Constituency in Suryapet awarded (May 2014) at a cost of ₹ 71 crore was to be completed by May 2016. Though the work was stated to be completed, physical verification showed (June 2017) that construction of Rapid Sand Filters at head work was incomplete. The scheme was under trial run during which untreated water was being supplied to the habitations. Thus, the target of providing treated water to 231 habitations was not achieved even after 14 months from stipulated date of completion and after incurring expenditure of ₹ 60.17 crore.

4.2.7 Works completed but remained non-operational

Test check of executed works in different States brought out that 34 works completed at a cost of ₹ 61.91 crore were not operational for reasons such as lack of power connection, damaged pipelines due to road widening, leakages in pipelines and non-execution of work as per approved specifications. These were reflective of lack of coordination between different agencies to operationalise projects already completed. A few illustrative cases are discussed below:

Arunachal Pradesh: In Papumpare district, scheme for providing water supply through deep bore well at Taying Tarang completed in March 2015 at a cost of ₹ 0.24 crore was non-functional for want of electricity connection.

Assam: 23 PWSSs under Greater Titabor Water Supply Scheme completed in May 2013 at a cost of ₹ 7.04 crore were not operational due to inadequate and irregular power supply, shortage of boosting station, absence of alternate pump sets and leakage of water.

Jharkhand: Pratappur Rural Water Supply scheme was sanctioned in 2006 at a cost of ₹ 1.94 crore to provide safe water to fluoride affected habitations. Even after incurring an expenditure of ₹ 1.88 crore till March 2012, water supply from the scheme was partial due to choked rising mains and low power voltage. Water supply was not being made from the scheme to the targeted villages since July 2016 as pipelines supplying water from the river had been damaged.

Photograph showing idle generator and rusting pressure filters in non-functional MPWS Scheme in fluoride affected GP of Jharkhand

Karnataka

In district Bagalkot, two works (Water supply schemes for Katageri and other 13 villages and for Anawal and other 10 villages) awarded at a cost of ₹ 12.93 crore in August 2008 were to be completed by August 2009. As the contractor failed to adhere to the approved specifications, water could not be provided to intended villages during the trial run of the project. The schemes were not made functional even after incurring an expenditure of ₹ 14.38 crore. Though the SLSSC approved augmentation works for ₹ 1.50 crore to rectify the defect in September 2013, no progress (August 2017) could be made to address the problem.

Further, a multi village water supply scheme for Nagaral and other five villages in Taluk Mudhol was administratively and technically approved (October 2006 and December 2007) at a cost of ₹ 7.90 crore but work was not awarded till January 2008 due to lack of response from bidders. Subsequently, estimates for the scheme was revised to ₹ 8.82 crore and work was awarded to a contractor for execution (March 2008) at a cost of ₹ 10 crore with stipulated completion by February 2009. The scheme was completed at a cost of ₹ 9.70 crore. Audit observed that water was not reaching the reservoir due to leakages which was evidence of sub-standard work executed by the contractor. Further, physical verification also showed that the source (Ghataprabha canal) identified for water supply had also dried up.

Meghalaya: Two works (Sakhain Moolimen Water Supply Scheme and Cham Cham Water Supply Scheme) sanctioned in 2008 had not been made functional (July 2017) even after incurring an expenditure of ₹ 1.30 crore due to lack of power connection.

Telangana

Three works (CPWS scheme to Nagar Kurnool Constituency; balance habitation Thimajipet scheme–Achampet Project in district Mahabubnagar and CPWS scheme Manuguru and Pinapaka scheme in district Khammam-Phase-I &II) were completed at a cost of ₹ 24.44 crore for supplying water to 76 habitations. These works were not commissioned (March 2017) due to removal of a stretch of ductile iron pipes and non-rectification of defects relating to Phase-I.

CPWS scheme to Bukkapur and other habitations was completed at a cost of ₹ 2.93 crore for water supply to six habitations. However, it was noticed that the scheme was not commissioned as water at the intake well had receded by more than 500 metres and the intake well was higher than the water level.

4.2.8 Works completed without coverage of targeted habitations and overlapping of habitations covered

Test check of records in selected divisions revealed that habitations in three States targeted to be covered under the scheme planned were either not covered despite completion of the scheme or same habitations were covered under two or more schemes as discussed in succeeding paragraphs:

Andhra Pradesh: Eight Comprehensive Protected Water Supply (CPWS)[15] schemes commissioned at a cost of ₹ 79.93 crore covered only 344 habitations as against the target of 694 habitations. The shortfall in coverage was attributed *inter-alia* to insufficient funds and non-receipt of certain clearances.

Arunachal Pradesh: In the four selected districts (six divisions), 26 targeted habitations were not covered due to non-execution of work relating to laying of pipelines in 23 schemes completed during 2012-17 at a cost of ₹ 20 crore.

Assam: PHE division Hailakandi had taken up water supply works under three multi-village schemes[16] between January 2013 and March 2013. As of May 2017, physical progress of 65 to 95 *per cent* was achieved with an expenditure of ₹ 31.57 crore. Five habitations which were covered under these multi-village schemes were again included for being coverage under five individual water supply schemes at an estimated cost of ₹ 5.80 crore by the same division during the period June 2013 and December 2013. Thus, sanction of five individual water supply schemes covering the same habitations as covered under the multi-village schemes was not justified and expenditure of ₹ 3.03 crore incurred on these individual schemes was irregular.

4.2.9 Abandoned works

Test check of records in selected divisions revealed that 1,367 works in **12 States** were abandoned after incurring an expenditure of ₹ 40.07 crore. These works were abandoned on account of reasons such as abandonment of works by contractors (16 works), land disputes (17 works), damaged pipe lines (5 works), contamination of water source (13 works), unsuccessful boring of tube wells (1,312 works) and schemes becoming non-functional (4 works) as given in **Annexe-4.2.** A few illustrative cases are discussed below:

Andhra Pradesh: Five[17] water supply works with estimated cost of ₹ 10.94 crore were awarded to contractors between November 2011 and May 2015 for completion between May 2012 and October 2015. The contractors abandoned these works midway between April 2012 and December 2016. However, the department did not take any action to

[15] Veldurthy Mandal; KV Palli, Kalikiri and Kalakanada Mandals in district Chittor; Tallapudi (M), Lankalakoderu and others habitations, Unguturu, Veeravasaran and other habitations, Saripalli and other habitations, Madavaram and other habitations of district Godavari.

[16] Rupacherra MV PWSS under State Plan and Greater Sheralipur MV PWSS & Lala MV PWSS under NRDWP

[17] CPWS to Chintalapudi and strengthening of bund and protection works in Prathikollalanka in district West Godavai; Single Village Water Scheme to Krishnayapalem (V) of Mangalagiri (M) and Kuragallu (v) of Mangalariri (M); scheme of Neerukonda (v) of Mangalagiri (M) of district Guntur

complete the balance works and expenditure of ₹ 6.17 crore incurred on these works was rendered unfruitful.

Jharkhand: In district Palamu, two scheme[18] with estimated cost of ₹ 12.19 crore were taken for execution in March 2008 and January 2010. These works were abandoned since October 2010 and April 2013 respectively due to non-availability of land, unwillingness of contractor to execute work at old rates and delay in supply of pipes thereby rendering the expenditure of ₹ 5.52 crore unfruitful.

Karnataka: In district Chitradurga, work of water supply scheme to Revalakunte and 26 other villages was awarded to a contractor at a cost of ₹ 10.25 crore for completion by May 2009. Audit observed that the work was not completed/commissioned due to heavy leakages in the pipelines during trial run and drying up of source. The project remained abandoned since January 2013 and the expenditure of ₹ 9.45 crore incurred was rendered unfruitful. In district Yadgir, work to supply drinking water to Gogi and 10 other villages was awarded in March 2002 at a cost of ₹ 2.58 crore. The source of water was identified as a tank in Gogi village. The work was completed at a cost of ₹ 2.96 crore and handed over to *Gram Panchayat* in April 2009. During physical verification, it was noticed that the identified water sources of scheme was getting contaminated from the outflow from a uranium plant that existed within the catchment area of the tank. Proposal to shift the source to another tank was not worked out as the canal supplying water to the tank was tailing off. Thus, failure of the department in identifying a proper water source rendered wasteful expenditure of ₹ 2.96 crore.

Odisha: Geo-hydrological test was not conducted and services of Source Finding Committee as well as Directorate of Ground Water Survey and Investigation was not obtained in the eight selected districts before sinking of tube wells. As a result, 1,310 tube wells became unsuccessful and expenditure of ₹ 3.76 crore incurred on these tube wells was rendered wasteful.

Rajasthan: In district Jaisalmer, water supply scheme (Sagarmal Gopa branch Ramgarh-Sonu-Mokan-Khuniyala) was taken up for execution in March 2013 at a cost of ₹ 2.30 crore for completion by December 2013. The contractor, after executing work valuing ₹ 1.79 crore (September 2014), did not execute the remaining work due to encountering of hard strata and the work was lying incomplete (June 2017). As of March 2017, the total cost incurred on the work was ₹ 1.87 crore.

[18] Singra Rural Piped Water Supply scheme and Bishrampur Rural Piped Water Supply Scheme.

Uttar Pradesh: In Raebareli, Construction-I division executed Bardar Water Supply Scheme at a cost of ₹ 1.84 crore and handed over the work to the *Gram Panchayat* in August 2015. The scheme was designed to meet 30 years' requirement of water of Bardar and Bankat village covering 11 habitations. It was noticed that just after one month of handing over, the boring pump of the scheme failed (September 2015) due to excess discharge of sand and soil. The scheme was lying abandoned as of July 2017.

4.2.10 Payment without execution of work

Test check of records in selected divisions revealed that ₹ 1.45 crore was paid to contractors in 12 works in three States without the works being executed as detailed below:

Chhattisgarh: In Kanker division, ₹ 60 lakh was paid during 2012-15 in nine works comprising of percolation tanks, stop dams, RCC cistern, pump house and laying of pipelines without actual execution of work. The Department stated that an enquiry was being held and ₹ 26 lakh had been recovered from two contractors.

Manipur: PHE division Kangpokpi incurred ₹ 43 lakh for purchase of construction material for laying of pipelines for supply of drinking water to 227 schools and 108 *anganwadi* centres. The work was executed through Non-Government Organisations (NGOs) and contractors and claims for work done were not supported by vouchers. Thus, the genuineness of the payments made for the work was doubtful. Audit also observed that Houbal PHE division executed a work of providing drinking water to 100 *anganwadi* centres at a cost of ₹ 20 lakh in 2013. However, neither the work order nor the agreement mentioned the location of *anganwadi* centres. There were 72 *anganwadi* centres in the district and physical verification carried out in the 13 selected habitations revealed that none of the *anganwadi* centres at these habitations had been provided with drinking water facility.

Sikkim: In South Sikkim district, one of the items in the estimate of work for RWSS at Yangang and adjoining villages awarded in July 2013 was laying of 64,050 metres of pipeline by excavating soil at a cost of ₹ 22 lakh. During physical verification, Audit found that pipes were laid without excavating soil leading to irregular payment for this item of work besides exposing the pipes to risk of damage.

4.2.11 Discrepancies in tendering process and contract management

General Financial Rules provide that every authority delegated with the financial powers shall have the responsibility and accountability to ensure efficiency, economy, and transparency in matters relating to public procurement. Towards this end, the Rules as well as the Works Manuals along with instructions and guidelines issued by the

Central Vigilance Commission (CVC) from time to time contain specific provisions relating to the tendering process and management of contracts that are to be adhered to by the concerned departments. Test check of records relating to water supply schemes revealed several instances of deviation from the codal provisions which had a financial implication of ₹ 14.67 crore as discussed below:

Mizoram: As per guidelines of the Finance Department of the Government of Mizoram, prices approved by the State Purchase Advisory Board (SPAB) were valid for one year extendable by another six months. The SPAB approved purchase of GI Pipes from a firm in March 2010. However, PHED procured pipes for 302 rural water supply schemes costing ₹ 19.40 crore from the same firm at the same rates without inviting fresh tenders during 2012-13 to 2016-17 though the validity of the approval given by SPAB had expired. This deprived the department of the opportunity of ascertaining current market prices and assuring itself of the competitiveness and reasonableness of the expenditure incurred on the procurement.

Sikkim: In South Sikkim district, tenders were invited in February 2013 for civil work of a RWSS at an estimated cost of ₹ 3.28 crore. In response, five bids were received and the lowest bid of ₹ 2.26 crore which was 31.3 *per cent* below the estimated cost was recommended for acceptance. The bidder however subsequently withdrew its offer on "personal grounds." Of the four remaining bidders, three of the bidders agreed to carry out the work at ₹ 2.79 crore which was 15 *per cent* below the estimated cost. The work was however awarded (July 2013) to the fourth bidders at the estimated tender cost of ₹ 3.28 crore. Audit observed that the CVC guidelines stipulate that in the event of the lowest bidder backing out the work, the work should be re-tendered in a transparent manner. In the instant case, not only was the CVC guidelines not adhered to, the work was awarded to the highest bidder which resulted in an avoidable expenditure of ₹ 0.49 crore.

Assam: In Jorhat PHE Division, work for Greater Titabor water supply scheme was divided in two zones *viz.* Zone-I and Zone-II. Audit observed that estimated cost of ductile iron special and fittings in Zone-I was taken at 25 *per cent* of the cost of ductile iron pipes whereas it was taken at 15 *per cent* in Zone-II. Adoption of higher rate of 25 *per cent* in Zone I for the same item of work lacked justification as the rate of 15 *per cent* had been adopted in Zone II as well as in other PHE divisions. Adoption of the higher rate in Zone I inflated the cost of scheme by ₹ 1.78 crore. Further, rates of un-plasticised polyvinyl chloride (UPVC) pipes taken in the approved estimates (October 2011) for the two zones were higher than the available approved rates for these pipes (July 2010). This further inflated the estimates by ₹ 0.86 crore. This resulted in excess expenditure of ₹ 2.64 crore on the works.

Kerala: Four works (CARWSS to Moorkanad and adjoining villages; WSS to East Eleri *Panchayat* Package 1; WSS to East Eleri *Panchayat* package 3 and ARWSS-augmentation and improvement Nilambur WSS) were terminated between February 2012 and December 2015 at the risk and cost of the contractors. However, liability of ₹ 3.75 crore on account of the risk and cost clause was yet to be recovered from the defaulting contractors. In another WSS covering Manimala and adjoining villages, the contract was terminated in July 2013 at the risk and cost of the contractor but the balance work was awarded to the same contractor in December 2013. The work was yet to be completed (July 2017).

Maharashtra: Since insurance charges are included in the schedule of rates for preparation of estimates, tender conditions required contractors to submit insurance policies prior to start of work failing which one *per cent* of tendered cost was recoverable from the contractors. In Buldhana and Raigad districts, contractors executing 379 schemes did not purchase insurance policies. However, no recoveries were made as per the tender conditions leading to non-recovery of ₹ 1.74 crore from the contractors. Audit also noted that the Building and Other Construction Workers Cess Act 1996 obligated the department to deduct cess from the bills of the contractors for deposit with the Building and Other Construction Workers Cess Board. However, the department failed to deduct labour cess amounting to ₹ 1.76 crore from the bills of these contractors which was not only violation of a statutory obligation but also exposed the department to the liability of paying the cess to the Board under the Act ibid.

Odisha: Five PWS works (Kesapali, Barab, Kholbilong, B Garposh and Amodi) in districts Sambalpur and Nuapada were awarded at a cost of ₹ 10.26 crore between April 2012 and March 2015. The contractors after executing work valuing ₹ 4.03 crore abandoned the works. However, the department failed to impose liquidated damages of ₹ 1.24 crore upon the defaulting contractors as per the terms of the contract.

The Government of Odisha issued orders for involving Non-Governmental Organisations in execution of drinking water supply projects. These orders stipulated that money for the works would be released on reimbursement basis on completion of the works. Further, the Odisha PWD Code prohibited payment of advances to contractors except in exigencies in which event 18 *per cent* interest would be levied. In violation of the above, the Rural Water Supply and Sanitation Department awarded piped water supply works at Bhanjanagar and Berhampur to an NGO and paid an advance of ₹ 2.77 crore[19] during 2012-17 without any recorded reasons for the same. Out of this, ₹ 2.66 crore had been adjusted as of July 2017 leaving ₹ 0.11 crore

[19] ₹ 2.10 crore by Bhanjanagar and ₹ 0.67 crore by Berhampur

unadjusted. Further, no interest was levied on the advance which led to a loss of ₹ 0.10 crore to the exchequer.

Rajasthan: In terms of Clause 2 of General Conditions of Contract/Agreement prescribed in the Public Works Financial and Accounts Rules of Rajasthan, compensation is to be recovered if the contractor does not complete the work within the period specified in the work order and the delay is attributable to the contractor. In contravention of the above codal provision, the department failed to recover compensation of ₹ 0.28 crore in district Ganganagar despite delays in execution of works that were attributable to the contractors.

4.2.12 World Bank Project for Low Income States

A project for rural water supply in four low income States *viz.* **Assam, Bihar, Jharkhand** and **Uttar Pradesh** was started by the Ministry in December 2013 in collaboration with the World Bank. Under the project, a rural population of 78 lakh in 33 districts of four States[20] was to be covered with 2,012 piped water supply schemes by 2020 at an estimated cost of ₹ 6,147 crore (equivalent to USD 1 billion[21]). As per the agreement between Government of India and the World Bank, the latter would provide 50 *per cent* of the project cost (USD 500 million) over a period of seven years (2013-14 to 2019-20). The remaining 50 *per cent* of the project cost was to be financed through contributions from Government of India, State Governments and beneficiaries.

As per the agreement, 726 out of the 2,012 schemes were to be completed by March 2017. The actual status of completion of these schemes is given in **Table 4.6** :

Table 4.6: Status of Schemes under World Bank Project as on March 2017

Schemes	Assam	Bihar	Jharkhand	Uttar Pradesh	Total
Planned	7	330	751	924	2,012
To be completed	3	156	335	232	726
Started	7	137	201	233	578
Completed	0	0	103	26	129
Ongoing	3	129	78	204	414
Yet to be started	4	8	20	3	35

Source: Records of the Ministry

The schemes under the World Bank Project were lagging behind and only 129 out of the 726 schemes planned for completion by March 2017 i.e. 17.8 *per cent* had been completed. As per the agreement, World Bank funds of ₹ 1,506.02 crore was available for disbursement up to March 2017. However, due to slow progress in commencement

[20] **Assam**-seven districts, **Bihar**-10 districts, **Jharkhand**-six districts and **Uttar Pradesh**-10 districts with estimated population coverage of 14 lakh, 24 lakh, 12 lakh and 28 lakh receptively.
[21] 1 US $ = ₹ 61.47

and execution of the schemes by the States the Ministry disbursed only ₹ 584.90 crore by March 2017 against which expenditure incurred was only ₹ 380.04 crore (25.2 *per cent*).

The Ministry attributed (September 2017) the slow progress of works to inadequate financial capability of vendors, lack of knowledge/skill of vendors, inexperience in implementing turnkey projects and lack of capacity available with the State Government machinery.

The slow physical and financial progress recorded against the World Bank project that was especially focussed on implementing piped drinking water supply schemes in 33 districts of four low income States deprived the target population in these States from the benefits from the project.

4.2.13 Slow progress of Solar Energy Based Water Supply Schemes

Two separate projects for setting up of Solar Energy Based Dual Pump Piped Water Supply scheme were initiated by the Ministry with the financial assistance of the National Clean Energy Fund (NCEF), Ministry of Finance (March 2013) and Ministry of New and Renewable Energy (MNRE) (October 2014). The objective of the project was to cover remote areas in all States where electricity supply was not available. Audit observed the following:

a) Installation of Dual-Pumps in 11,068 rural habitations of 10 States was taken up with 40 *per cent* financial assistance from NCEF while the balance 60 *per cent* was to be equally shared between the Centre and States. NCEF contributions amounting to ₹ 110.65 crore (March 2013) and ₹ 110.64 crore (March 2015) were released for installation of dual-pumps in 11,068 habitations. In the case of 5,424 habitations, the project was scheduled to be completed in 18 months i.e. by September 2014 and by August 2015 in the case of remaining 5,644 habitations. It was noted that a total of 8,802[22] habitations (79.5 *per cent*) had been covered under the project as of September 2017. Analysis of State-wise performance showed that achievement ranged between 55 *per cent* and 94 *per cent* in **Chhattisgarh, Jharkhand, Madhya Pradesh, Telangana** and **Uttar Pradesh.**

[22] Achievement of **Andhra Pradesh**, **Bihar, Maharashtra** and **Uttar Pradesh** were not available with the Ministry.

b) Installation of 15,400 dual-pumps in 17 States at an estimated cost of ₹ 1.80 lakh each was taken up in July 2016 with the financial assistance of ₹ 0.40 lakh per pump from Ministry of MNRE leaving a balance cost of ₹ 1.40 lakh per pump. This balance cost along with storage, distribution and installation cost amounting to ₹ 4.50 lakh was to be shared between the Centre and States. The work was to be completed by March 2017. Audit observed that against the target of 15,400 pumps, only 7,100 dual-pumps (46.1 *per cent*) had been installed by September 2017. State-wise performance showed that **Assam, Haryana, Punjab** and **West Bengal** had not installed any dual pump against their target of 1,000. Further, in **Bihar, Gujarat, Rajasthan** and **Tamil Nadu**, only 14 dual pumps had been installed against the targeted installation of 3,000 dual pump as on September 2017. In **Chhattisgarh**, **Karnataka, Telangana** and **Uttar Pradesh**, the percentage achievement ranged between 18 and 57 *per cent.*

Odisha

Solar energy based dual pump piped water supply scheme for IAP district was launched in 2013-14 through Odisha Renewable Energy Development Agency (OREDA) for which seven *per cent* service charge was paid to the agency. All works were covered with five years Comprehensive Maintenance Contract (CMC) from the date of installation. During 2013-14 to 2016-17, 6,291 solar dual pumps were installed in the State incurring an expenditure of ₹ 161.02 crore. As of August 2017, 428 solar dual pumps installed incurring an expenditure of ₹ 19.41 crore were non-functional for a period ranging between three and 25 months. OREDA had intimated the vendors to rectify the defects within 15 days. Due to non-restoration of these pumps, targeted populations of 428 habitations were not getting the desired benefit.

The Ministry stated (September 2017) that implementation of the scheme was lagging behind as the States were not able to focus on the schemes due to pre-occupation with other mainstream programmes. It intimated that the progress was being closely watched and the schemes would be completed soon. The fact remained that the delay in completing the scheme would affect the objective of extending coverage of water supply schemes to remote areas in all States where electricity supply was not available.

4.2.14 Coverage of Schools and *Anganwadis*

Programme guidelines envisage that all States should compile data of rural government schools and *anganwadis* in existence and the number of them having drinking water facilities. Further, as per the Strategic Plan (2011-22), all schools and *anganwadis* in rural India are to be provided with access to adequate quantity of safe drinking water by 2017.

Audit observed that out of 10.45 lakh schools (government, aided, local body and private) and *anganwadis*, 1.50 lakh schools and *anganwadis* i.e. 14.35 *per cent* were without drinking water facilities as of November 2017. The shortfall in provision of drinking water facilities to schools and *anganwadis* was higher in the North-Eastern States of **Arunachal Pradesh** (56 *per cent*), **Assam** (29 *per cent*), **Meghalaya** (48 *per cent*), **Nagaland** (54 *per cent*) and **Sikkim** (36 *per cent*) as compared to States in the other regions. State specific observations on the status of provision of drinking water facilities to schools and *anganwadis* are given below.

Arunachal Pradesh: In West Kameng district, 21 out of 40 test checked water supply schemes to schools (53 *per cent*) remained incomplete for more than four years (August 2017) due to non-construction of items like sedimentation tanks, non-provision of storage tanks and Public Stand Posts (PSPs). In Lower Subansiri district, 15 schemes were non-functional since April 2006 due to quantity and quality problems. Out of eight test checked schools, in one school the water supply scheme which was completed (March 2014) at a cost of ₹ Six lakh remained non-functional as a storage tank and PSPs had not been constructed as of March 2017.

Madhya Pradesh: In 44 selected GPs, drinking water facility was not available in 33 out of 226 schools. Similarly, drinking water facility was not available in 27 out of 125 *anganwadis*.

Rajasthan: In 10 selected districts, drinking water facility was available in only 1,049 out of 2,903 schools as on April 2012 leaving 1,854 schools uncovered as of March 2017. It was also observed that no school was covered during 2015-17 in four districts[23] despite 866 schools[24] not having drinking water facilities as of April 2015.

Tripura: The department informed audit that only three schools remained without access to adequate drinking water facilities. However, scrutiny of records at the district level in the test checked districts revealed that in Dhalai district alone, 34 schools and 51 *anganwadis* were yet to be covered at the end of 2016-17. Moreover, cross check of updated (June 2017) records of United District Information System for Education revealed that 991 schools were without potable drinking water facilities in contrast to the State's claim that only three schools remained without access to adequate drinking water facilities.

It is evident that the Ministry had fallen short of achieving the Programme objective of providing safe drinking water to all schools and *anganwadis* in rural areas by March 2017 with the shortfall being sharpest in the North Eastern States.

[23] Bhiwara, Dungarpur, Jaipur, and Jhalwar
[24] Bhiwara-290, Dungarpur-61, Jaipur-333, and Jhalwar-182

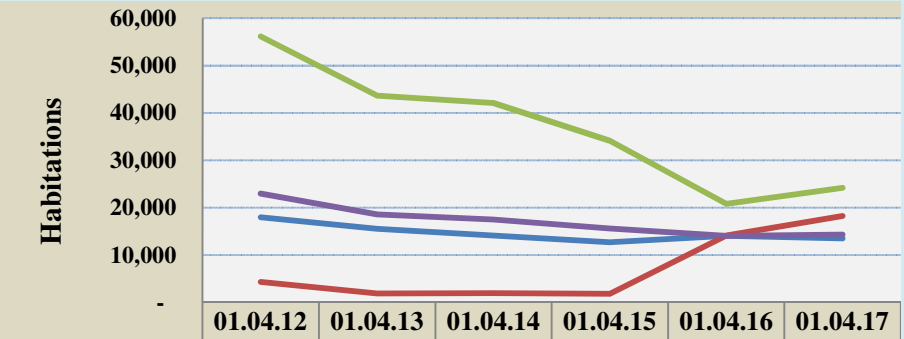
4.3 Quality

Chemical contamination of drinking water especially due to arsenic, fluoride, iron and heavy metals along with bacteriological contamination are major concerns in supply of safe drinking water in rural areas. A large number of rural habitations are quality affected and ensuring availability of safe drinking water by addressing quality concerns remains a challenge. Consequently, NRDWP emphasises coverage of water quality affected habitations by earmarking funds for schemes in such areas as detailed in para 3.1 of this report. In addition, special schemes were also launched to mitigate the water quality in habitations, schools and *anganwadis*.

4.3.1 Status of quality affected habitations

Audit observed that 1,04,160 rural habitations (1 April 2012) were affected with chemical contamination which reduced to 67,290 habitations as of April 2016 but increased to 74,724 habitations (11 *per cent*) as of April 2017. The position with regard to major sources of chemical contamination of drinking water, availability of community water purification plants (CWPPs) and related issues are given in **Box-4.1**:

Box-4.1: Habitations affected with chemical contamination



	01.04.12	01.04.13	01.04.14	01.04.15	01.04.16	01.04.17
Fluoride	17,986	15,565	14,132	12,727	14,055	13,492
Arsenic	4,314	1,917	1,991	1,800	14,143	18,258
Iron	56,144	43,662	42,093	34,096	20,806	24,168
Salinity	22,958	18,589	17,472	15,617	14,085	14,317

CWPP habitations and shortfall w.r.t. position of 01 April 2017

No.	*per cent*
2,290	**83.3**
994	**94.6**
44	**99.8**
156	**98.9**

Fluoride: According to IMIS data, 13,492 habitations having 1.08 crore of rural population in 17 States were at risk due to fluoride in drinking water sources as on 1 April 2017. However, 83.3 *per cent* of such habitations were not provided with CWPPs.

Arsenic: Arsenic affected habitations were significant in **Assam** and **West Bengal**. According to IMIS data, 18,258 habitations with a rural population of 1.70 crore were affected with arsenic contaminated drinking water as on 1 April 2017. CWPPs were however for provided only in 994 habitations (5.4 *per cent*). CWPPs were not provided in any of the affected habitations of **Chhattisgarh, Jharkhand, Karnataka** and **Uttar Pradesh.**

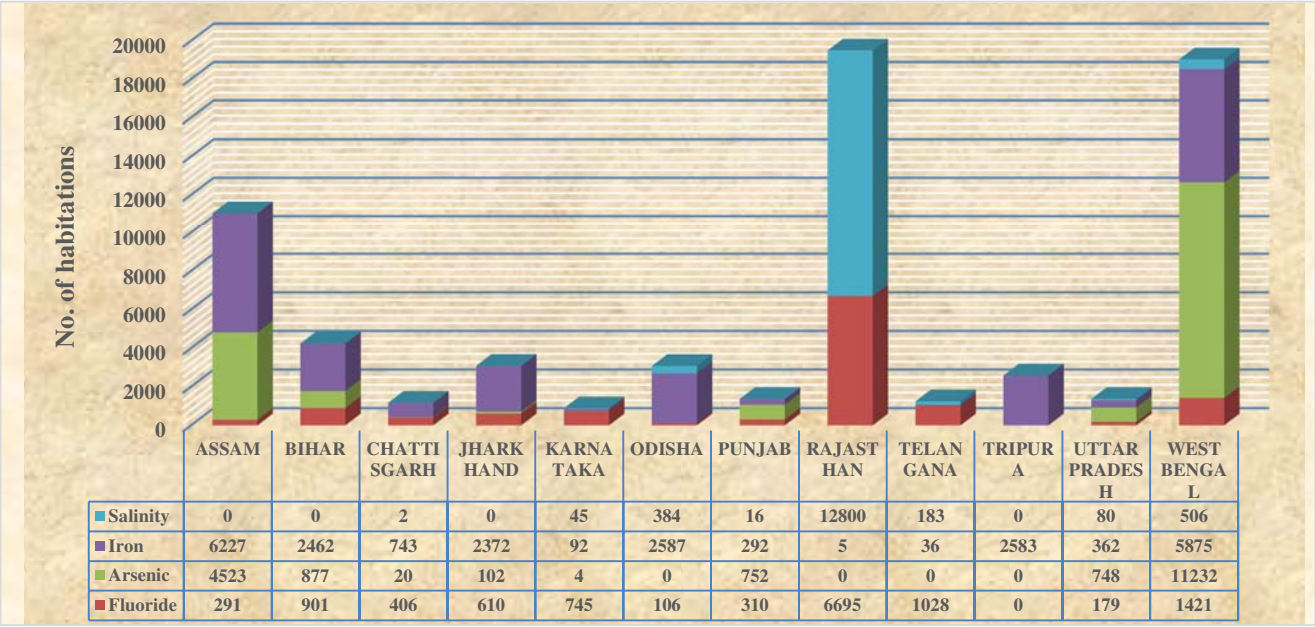
Iron: Despite a declining trend (2012-16), drinking water in 24,168 habitations covering a rural population of 1.48 crore in 22 States were still contaminated with iron as of 1 April 2017. Against this, only 44 habitations (0.2 *per cent)* in five States including 35 in **Karnataka** and five in **West Bengal** were provided with CWPPs.

Salinity: Salinity is predominant in **Rajasthan.** According to IMIS data, out of 14,317 habitations covering 44 lakh rural population where water was affected by salinity as on 1 April 2017, 12,800 habitations covering 30 lakh rural population were in **Rajasthan**. CWPPs had been however provided only in 156 habitations (one *per cent*) including 131 habitations in **Rajasthan**.

***Source**: IMIS data of the Ministry*

Thus, out of 74,724 quality affected rural habitations as on April 2017, 70,235 rural habitations i.e. 94 *per cent* were affected with major chemical contamination of arsenic, fluoride, iron and salinity. **Assam, Bihar, Jharkhand, Rajasthan, Odisha** and **West Bengal** are the prominent States affected with the water contamination. The position of States largely affected with arsenic, fluoride, iron and salinity as of April 2017 is detailed in **Chart-4.6** :

Chart-4.6: Contamination-wise status of habitations in States as on April 2017



	ASSAM	BIHAR	CHATTISGARH	JHARKHAND	KARNATAKA	ODISHA	PUNJAB	RAJASTHAN	TELANGANA	TRIPURA	UTTAR PRADESH	WEST BENGAL
Salinity	0	0	2	0	45	384	16	12800	183	0	80	506
Iron	6227	2462	743	2372	92	2587	292	5	36	2583	362	5875
Arsenic	4523	877	20	102	4	0	752	0	0	0	748	11232
Fluoride	291	901	406	610	745	106	310	6695	1028	0	179	1421

As on April 2017, only five *per cent* of the quality affected rural habitations had been provided with CWPPs leaving the problem of contaminated water unaddressed in the remaining habitations. In 12 States *viz.* **Arunachal Pradesh, Haryana, Jammu & Kashmir, Kerala, Meghalaya, Nagaland, Odisha, Tamil Nadu, Telangana, Tripura, Uttar Pradesh** and **Uttarakhand**, CWPPs were not installed in any of the quality affected habitations to provide safe drinking water. In nine other States i.e. **Assam, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Punjab, Rajasthan** and **West Bengal**, the percentage of habitations provided with CWPPs

ranged from one to seven *per cent.* In **Andhra Pradesh** and **Karnataka**, the percentage of habitations provided with CWPPs was 35 and 49 *per cent* respectively.

Ministry stated (February 2018) that 10,689 CWPPs had been installed in quality affected habitations to provide safe drinking water. However, the fact remains that 95 *per cent* quality affected habitations were still without access to safe drinking water.

State specific comments based on test check of records with regard to quality affected habitations and provision of mitigating measures are given below:

Assam: In Golaghat PHE division, water from eight PWS Schemes completed between May 2011 and March 2013 at an expenditure of ₹ 4.75 crore was tested by a DLL (June 2017) and found to be contaminated with arsenic. Similarly, in Hojai and Nagaon PHE divisions, quality testing of water from 11 PWS Schemes completed between November 2010 and December 2014 at an expenditure of ₹ 4.98 crore revealed that water from all the schemes were contaminated with fluoride beyond the permissible limit. The concerned Divisional Officers stated that steps would be taken to provide safe drinking water to the beneficiaries covered by these schemes from alternate source. Thus, safe drinking water could not be made available to the habitants in these districts despite incurring an expenditure of ₹ 9.73 crore on 19 PWS schemes.

Odisha: Sixteen out of 40 tube wells in seven villages of two blocks in district Nabarangpur were contaminated by fluoride during 2015-17 but neither was any alternate source for safe drinking water provided to the villagers nor remedial measures such as installation of fluoride removal devices taken by the Department to mitigate the problem. As a result, the population of seven villages continued to use unsafe water.

Rajasthan: As per data made available by the State level laboratory, Jaipur, the State had not shown any habitation as being contaminated with heavy metals. However, as per the Central Ground Water Board, heavy metal contamination (lead, cadmium, chromium, nickle and copper) was present in Jhunnjhunu, Alwar, Jaipur and Jodhpur districts.

Tripura: As of 1 April 2017, 741 deep tube wells were not attached to Iron Removal Plants to tackle iron contamination. Consequently, all the habitations supplied with drinking water from these deep tube wells remained quality affected.

It was also observed that 15,493 habitations in 20 States were affected with heavy metals such as manganese, aluminium, uranium, lead, cadmium and selenium as of March 2017. The prominent States so affected were **Assam** (1,582 habitations), **Punjab** (2,038 habitations) and **West Bengal** (11,486 habitations).

4.3.2 Unproductive expenditure on removal of chemical contamination

Test check of records in six States brought out that Reverse Osmosis (RO) Plants, Iron Removal Plants, Ultra-Filtration Pot Filters, Mobile Water Treatment Plants and de-fluoridation units procured during 2012-17 valuing ₹ 87.15 crore were either lying idle or non-functional as discussed below:

Assam

(a) PHED procured 33,600 arsenic filters valued at ₹ 83.84 crore to provide fluoride and arsenic free water to schools and *anganwadis* during 2013-17. Of these, 33,580 filters were issued to the PHE divisions during 2013-14 to 2016-17 leaving 20 filters costing ₹ 0.05 crore in stock. Out of the issued filters, 18,575 were received by 13 selected divisions of which 7,214 (39 *per cent*) were issued to the schools and *anganwadis* leaving 11,361 filters costing ₹ 28.35 crore in selected divisional stores since 2013. Audit observed that Silchar-I Division issued 1,350 filters costing ₹ 3.37 crore to schools and *anganwadis* without any requisition as water was not chemically contaminated.

Arsenic filters lying idle at stores of different PHE divisions

Store of Hailakandi PHE Division (17.05.2017)

Store of Dhubri PHE Division (06.07.2017)

Store of Howraghat PHE Division (31-5-2017)

Thus, incorrect planning and procurement of filters without assessment of requirement resulted in 12,731 filters costing ₹ 31.77 crore remaining unused or issued to schools and *anganwadis* without any requirement (March 2017).

(b) Audit also noted that out of 68[25] Solar Operated Reverse Osmosis (RO) Plants worth ₹ 22.61 crore procured during 2014-16, 22 plants were issued to six[26] divisions leaving 46 plants in stock as of July 2017. However, 10 out of these 22 plants issued in three selected divisions[27] were yet to be installed.

[25] NRDWP (40 Plants) and State Plan Fund (28 Plants)

[26] (i) Guwahati PHE Division No.1 (5 Plants) (ii) Hojai PHE Division (7 plants) (iii) Jorhat PHE Division (2 Plants) (iv) Dhubri PHE Division (4 plants) (v) Barpeta PHE Division (2 Plants) and (vi) Nalbari PHE Division (2 plants)

[27] Hojai Division: 7 plants; Jorhat Division: 1 plant and Dhubri Division: 2 plants.

Solar Operated Reverse Osmosis Plants lying uninstalled (27.07.2017)

Department stated that 46 plants were not issued due to non-receipt of division-wise locations for installation from the higher authorities as well as non-receipt of information regarding completion of PWSS works where the plants were to be installed. Thus, 56 Solar Operated Reverse Osmosis plants procured during 2014-16 at a cost of worth ₹ 18.62 crore were lying idle.

(c) PHED procured 10,485 "Iron Removal Plants (IRPs)" costing ₹ 73.19 crore to provide iron free water during 2012-17. Out of 11,174 IRPs (including 689 IRPs lying in stock since April 2012), 10,882 IRPs were issued to the PHE Divisions for installation leaving 292 IRPs valued at ₹ 2.04 crore in stock. Out of the 10,882 IRPs issued, 2,733 IRPs were received by 13 selected divisions. Of these, 1,924 IRPs (70 *per cent*) were utilised/installed by the divisions leaving 809 IRPs in stock. Thus, 1,101 IRPs valued at ₹ 7.68 crore were yet to be utilised as of March 2017.

Further, out of the 937 IRPs installed in PHE divisions Silchar-II, Dhubri and Hojai, during 2012-17 only 47 IRPs were functional as of May 2017 and the remaining 790 IRPs[28] valuing ₹ 5.51 crore were non-functional due to lack of maintenance.

Non-functional Iron Removal Plants

Adabari Id-gah under Dhubri PHE Division Photograph taken on 9-7-2017

Adabari LPS under Dhubri PHE Division Photograph taken on 9-7-2017

[28] Pin point location of 100 IRPs were not furnished to audit.

(d) PHED procured 22,715 "Senco make ultra-filtration pot filters" costing ₹ 25.95 crore for installation in schools during 2012-17. Out of this, 4,150 filters valued at ₹ 4.74 crore and 2,321 filters (including 325 filter lying since April 2012) valuing ₹ 2.65 crore were lying in stock with Sanitation and Water Division, Guwahati and with 13 selected divisions as of March 2017.

Chhattisgarh: Out of 647 installed (2012-16) IRPs in the various iron affected habitations of Bastar, Rajnandgaon, and Jashpur, 77 were non-functional (March 2017) resulting in unfruitful expenditure of ₹ 0.42 crore.

Gujarat: In the selected districts, audit collected water sample test results (2012-17) of 73 habitations from 20 Talukas from water testing District and *Taluka* laboratories and found that 146 out of 700 samples taken were contaminated due to presence of excess fluoride and nitrates. However, neither were GPs informed about these test results nor was any remedial action taken.

Jharkhand: In Sahibganj and Palamu, Mobile Water Treatment Plants procured (August 2012) at a cost of ₹ 0.53 crore, were lying idle since April-May 2013.

Madhya Pradesh and Rajasthan

In **Madhya Pradesh**, in sub-divisions Chhindwara, Parasia and Jamai, 96 de-fluoridation units were installed at a cost of ₹ 1.64 crore in 2014-15. Terms of conditions of agreement with the executive agency included regular maintenance of the installed plants for five years. It was observed that 92 units were maintained by the agency for only four months from the date of installation. As the agency did not maintain these units, the contract was rescinded in February 2016. All 96 units were not functional (March 2017) and fluoride contaminated water was being supplied to the habitants.

In **Rajasthan**, in five selected districts (Bhilwara, Jaisalmer, Jhalawar, Kota and Tonk), work orders for installation of 669 de-fluoridation units at a cost of ₹ 5.80 crore were issued to an agency in January/May 2011. The agency was paid ₹ 0.79 crore for 374 de-fluoridation units installed in 2011-12. These units became non-functional for want of maintenance despite the fact the terms of contract included their operation and maintenance for five years.

Further, 57 Reverse Osmosis plants installed in district Jaisalmer and Barmer at a cost of ₹ 7 crore became non-functional for want of maintenance though the terms of contract included maintenance for seven years.

Findings of Audit Survey in Bihar

- As per IMIS data, Nagel habitation in district Banka was shown as covered with PWSS. But no PWSS was found to exist in the habitation during survey.
- As per IMIS data, three selected habitations (Seoka gola, Khasia and Houda tola) of Teliya Kumri *Panchayat* were shown as having fluoride removal attachment units. But no attachment units were found in two habitations and the unit in the remaining habitation was not functional.
- As per IMIS data, all four selected habitations of West Katskra *Panchayat* in district Banka were shown as being provided with attachment units. But these were not found during the audit survey.

4.3.3 Status of special schemes

Ministry launched special schemes to provide safe drinking water in schools and *anganwadis* in water quality affected areas and to provide financial support to affected States to mitigate water quality problem as a short term measure.

4.3.3.1 Unproductive expenditure under *Jalmani* Scheme

The Jalmani Scheme was started in November 2008 with the objective of providing children studying in water quality affected rural schools with safe and clean drinking water by installation of one lakh standalone water purification systems in schools.

Test check of records showed that out of the 3,302 water purification systems in schools of six States, 2,439 systems valued at ₹ 4.24 crore[29] were either not installed or not functional. The State-wise position with regard to installation of water purification systems is given in **Table-4.7**:

Table-4.7 : Status regarding installation of water purification systems

State	Number of water purification systems			Value of Not installed/Non-functional WPS (₹ in crore)
	Installed	Not installed	Non-functional	
1	2	3	4	6
Andhra Pradesh	782	66	91	0.31
Assam	174	203	-	0.41
Chhattisgarh	362	-	262	0.34
Madhya Pradesh	770	-	733	1.28
Mizoram	983	-	949	1.90
Telangana	231	-	135	NA
Total	**3,302**	**269**	**2170**	**4.24**

[29] In respect of 2,403 stand-alone Water Purification System

Thus, the expenditure of ₹ 4.24 crore, incurred on their procurement was rendered unfruitful.

4.3.3.2 Short utilisation of Central assistance provided by NITI Aayog

Due to the long gestation period[30] for water supply schemes and to avoid consumption of unsafe drinking water, NITI Aayog recommended in February 2016 release of one-time assistance for installation of CWPPs. Accordingly, ₹ 1,000 crore was released to 19 States[31] with the objective of providing at least 8-10 lpcd of drinking water in 1,327 arsenic affected and 12,013 fluoride affected habitations during 2015-16.

As of September 2017, 359 (27 *per cent*) arsenic affected and 2,596 (22 *per* cent) fluoride affected habitations were covered at a cost of ₹ 574.68 crore (57.46 *per cent* of total fund). NITI Aayog, while reviewing the progress (September 2017), instructed the States to complete installation of CWPP before 31 December 2017.

Audit observed that ₹ 319.89 crore released as one-time financial assistance remained unutilised in four States {**Andhra Pradesh** (₹ 8.19 crore), **Kerala** (₹ 19.73 crore), **Rajasthan** (₹ 197.39 crore) and **Telangana** (₹ 94.58 crore)}.

In **Karnataka**, the Ministry released (March 2016) ₹ 59.90 crore on the recommendations of NITI Aayog. In turn, the State Government released (August 2016) this amount to 18 districts (including seven selected districts). Though three of the selected districts (Bagalkot, Chitradurga and Mandya) furnished details of financial progress, details of works executed were not provided.

In **Maharashtra**, in 54 selected GPs, seven out of 177 habitations had no CWPPs. Further, in five village *Panchayats* having six schools and 16 *anganwadis*, two CWPPs were installed. However, ₹ 24.08 crore released during 2015-16 under "NITI Aayog" initiative remained unutilised.

Thus, non-utilisation of funds and slow progress of work defeated the very purpose of this short term measure to provide drinking water facility in quality affected habitations.

4.4 Sustainability

Sustainability of drinking water sources and schemes ensures safe drinking water even during distress periods through conjunctive use of groundwater, surface water and roof-water harvesting. The main aim of schemes for sustainability of drinking water is to ensure that water supply schemes do not slip back throughout their design period. This is achieved through construction of sustainability structures such as water harvesting

[30] It takes four to five years to complete piped water supply schemes

[31] In respect of installation of community water purification plants (₹ 800 crore) and to take up surface water projects where funds were required for last mile connectivity (₹ 200 crore).

systems, water recharging systems and surface water impounding systems aimed at improving rural drinking water supply.

4.4.1 Non-preparation/implementation of sustainability plan

The Strategic Plan (2011-22) envisaged preparation of Sustainability plans to ensure that recharge and water harvesting structures are taken up in a scientific manner. The Programme guidelines also stipulated that Annual Action Plans should indicate sustainability structures being taken up during the year.

However, sustainability plans were either not prepared or were not being included in AAP in 14 States (**Andhra Pradesh, Arunachal Pradesh, Assam, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Rajasthan, Sikkim** and **Telangana**). In the absence of sustainability plans, there was no assurance that sustainability structures were being taken up in a scientific manner so as to avoid expenditure incurred becoming infructuous.

4.4.2 Low expenditure on sustainability component

To ensure that water supply schemes do not slip back from fully covered to partially covered during the designed lifetime of the schemes, the Programme guidelines stipulate allocation of 10 *per cent* of the programme fund for sustainability[32]to be used exclusively to achieve drinking water security. Analysis of data on utilisation[33] of funds for sustainability component showed that only five States *viz*. **Chhattisgarh, Himachal Pradesh, Meghalaya, Mizoram** and **Odisha**, achieved this level of expenditure and the expenditure in 16 States[34] ranged between five and ten *per cent* and it was less than five *per cent* in eight States of **Andhra Pradesh, Arunachal Pradesh, Bihar, Goa, Kerala, Telangana, Tripura** and **West Bengal.**

Expenditure on the sustainability component by 24 States at lower than envisaged levels indicated low prioritisation for construction of sustainability structures. Audit noted that States which spent less than ten *per cent* of funds on sustainability component were among those that had a high number of slipped back habitations.

[32] Till 2014-15 it was 100 *per cent* Centre share, thereafter from 2014-15 sharing pattern changed to 60:40 as Centre:State share.

[33] In respect of Central allocation only

[34] **Assam,Gujarat, Haryana, Jammu & Kashmir Jharkhand, Karnataka, Maharashtra, Madhya Pradesh, Manipur, Nagaland, Punjab, Rajasthan, Sikkim, Tamil Nadu, Uttar Pradesh** and **Uttarakhand**

4.4.3 Construction of sustainability structures

Test check of records in States relating to provision of sustainability structures revealed the following:

Arunachal Pradesh: Only 245 out of the targeted 1,729 sustainability structures were completed after incurring ₹ 24.86 crore. This left a shortfall of 1,484 structures which was attributed to short allocation of funds.

Assam: Out of 2,220 Rain Water Harvesting Systems constructed during 2010-17 in primary schools and institutional buildings, 1,839 systems costing ₹ 37.81 crore were not functional (March 2017) due to lack of maintenance. In some of the cases, the bibcock of the reservoirs tank was broken and gutter pipes were either blocked or broken.

Bihar: State Government sanctioned four schemes for construction of 70,095 hand pumps as point source recharging systems during 2012-17. Out of this, 58,183 hand pumps were constructed at a cost of ₹ 288.57 crore without making provision of point source re-charging system. Evidently, hand pumps were constructed mainly for coverage of habitations and the objective of sustainability remained unachieved.

Karnataka: Nine check dams constructed between December 2012 and March 2016 at a cost of ₹ 0.50 crore did not serve its purpose as they were constructed on sites where water was not flowing in the stream for many years. Another three check dams constructed during the same period at a cost of ₹ 0.15 crore were either not used due to improper planning or abandoned. This evidenced the lack of planning in taking up sustainability works. Further, 11 check dams completed between January 2013 and March 2016 at a cost of ₹ 1.32 crore were found damaged or encroached and water could not be stored in these dams.

Rajasthan: Codal provisions stipulate ensuring encumbrance-free site before award of works. PHED circle Bhilwara awarded (February 2015) water security work at *gram panchaya* Khemana consisting of one overhead service reservoir, one open well, recharge shafts and recharge pits to a contractor at cost of ₹ 0.77 crore to be completed by August 2015. However, the work remained incomplete for over two years as of August 2017 due to existence of a land dispute though an expenditure of ₹ 0.64 crore had been incurred.

4.4.4 Non-convergence with other programmes

The Strategic Plan (2011-22) envisaged that works related to sustainability structures included in the sustainability plans should be taken up and financed in convergence with other related programmes such as Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and Watershed Development Programmes. This was

intended to ensure that labour cost recharging and surface water impounding systems is met from the other programmes.

Audit found that construction of sustainability structures was not being undertaken in convergence with other related programmes in 23 States (**Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Goa, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Punjab, Rajasthan, Sikkim, Tamil Nadu, Telangana, Tripura** and **Uttar Pradesh**). Non-convergence of works relating to sustainability with other programmes led to avoidable demand on funds allocated for the component.

Chhattisgarh and **Uttar Pradesh**

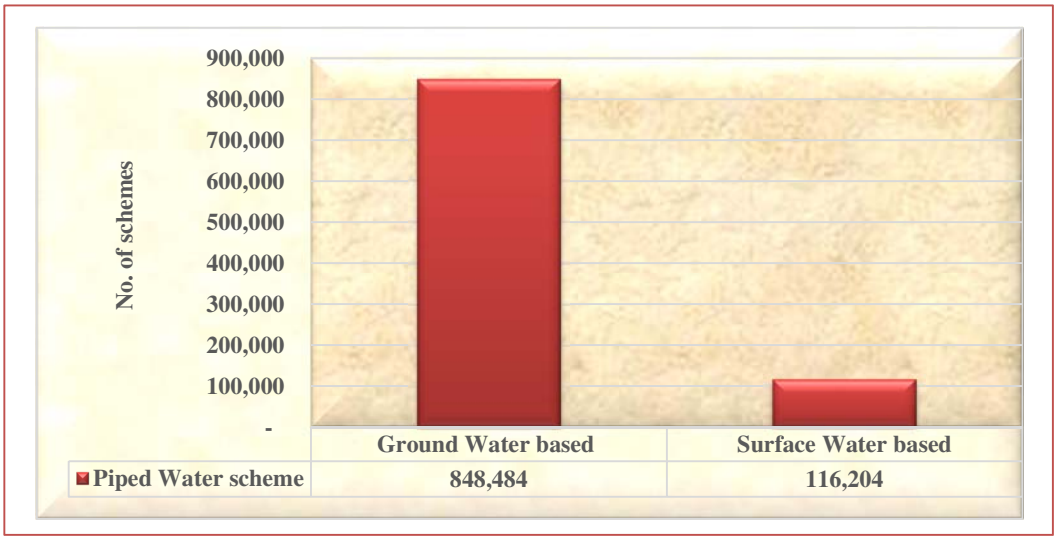
As per guidelines for implementation of Sustainability Component labour cost of any recharging system/surface water impounding structures was to be met from MGNREGS/IWMP funds. However, in **Chhattisgarh**, test check of records of PHE Electrical & Mechanical Division, Bastar & Raipur revealed that labour component amounting to ₹ 0.43 crore of 3,365 hydro-fracturing works executed during 2012-17 was paid from Sustainability Component rather than from MGNREGS/IWMP.

In **Uttar Pradesh**, in the Minor Irrigation Division of Raebareli, labour component of ₹ 0.89 crore for constructing 17 ponds during 2014 was not met from MGNREGS.

4.4.5 Dependence on Ground Water

NRDWP guidelines identified reduction in dependence on ground water and shift to surface water sources and conjunctive use of water from different sources as a critical issue to be addressed during the 12th plan period. The aim was to reduce pressure on ground water extraction and ensure sustained availability of safe drinking water even during distress periods. However, 88 *per cent* of piped water schemes continued to be based on ground water sources at the end of the 12th Plan period. The share of piped rural water supply schemes based on surface and ground water resources is shown in the **Chart-4.7**:

Chart-4.7: Piped water schemes covered under different water sources



***Source**: IMIS data of the Ministry*

The percentage of piped water schemes on ground water sources was above the national average of 88 *per cent* in the States of **Andhra Pradesh**, **Bihar, Chhattisgarh, Jharkhand, Karnataka, Madhya Pradesh, Odisha, Punjab, Tamil Nadu, Telangana, Tripura** and **Uttar Pradesh.**

The high level of dependence on ground water adversely affected the objective of ensuring availability of safe drinking water in the long term and also contributed to the incidence of slipping back of habitations.

4.5 Operation & Maintenance

Operation & Maintenance (O&M) is crucial for provision of drinking water supply in required quantity on a continued basis and also for ensuring that completed schemes do not slip back and valuable investment is protected. The Programme guidelines therefore provide for preparation of O&M Plans, provision of adequate and sustainable sources of funding for O&M activities; management of schemes in GPs by PRIs and devolution/transfer of funds to the PRIs for O & M of schemes managed by them.

4.5.1 Non-preparation of Operation and Maintenance Plan

NRDWP guidelines provide[35] for use of the Ministry's O&M Manual by the States or preparation of a State specific O&M Manual. The Ministry's Manual of O&M envisages preparation of a O&M plan containing procedures for routine tasks, checks and inspection at set intervals for every major unit and for each scheme as a whole. Audit observed that scheme-wise O&M Plans for routine tasks, checks and inspections were not prepared in 20 States (**Andhra Pradesh, Arunachal Pradesh, Assam,**

[35] Paragraph 9.7

Bihar [36] , Chhattisgarh, Himachal Pradesh, Jammu &Kashmir, Karnataka, Madhya Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Punjab, Rajasthan[37], Sikkim, Tamil Nadu, Tripura, Uttar Pradesh and **Uttarakhand).** In the absence of O&M plans, there was no assurance that the required checks and inspections of schemes were being conducted to identify maintenance requirements and operational problems.

4.5.2 Allocation and utilisation of funds under O&M Component

As per the Programme guidelines, up to 15 *per cent* of NRDWP fund can be utilised by States for O&M and States will make matching contribution which along with funds provided under the Finance Commission's recommendations as grants to PRIs will be used to meet the O&M expenditure on drinking water supply schemes. States should devolve the required O & M fund to the PRIs for O & M of schemes managed by them. Analysis of expenditure on O&M component[38] brought out that expenditure on O&M was less than 10 *per* cent of the programme fund in seven States *viz* .**Bihar, Goa, Himachal Pradesh, Jharkhand, Karnataka, Sikkim** and **Telangana**. In another seven States *viz.* **Arunachal Pradesh, Chhattisgarh, Maharashtra, Odisha, Rajasthan, Tamil Nadu** and **Uttarakhand**, it ranged between 10 and 15 *per cent*.

This lack of emphasis on running and maintenance of schemes contributed to non-functioning of schemes as discussed in paragraph 4.5.4.

4.5.3 Lack of involvement of PRIs in O&M

Audit observed that completed water supply schemes were only partly handed over to PRIs in nine States *viz*. **Arunachal Pradesh, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Mizoram** and **Nagaland**. In four other States of **Assam, Bihar, Meghalaya** and **Tripura**, water supply schemes were not handed over to PRIs for effective O&M as stipulated in the Programme guidelines. In two States of Arunachal Pradesh and Nagaland, though O&M activities were transferred to PRIs, funds were not devolved to them. In **Nagaland**, the State claimed that O&M Funds shown transferred to the selected villages had been received by them but physical verification disclosed that funds had not been made available.

Thus, contrary to the Programme objectives and guidelines, the overall involvement of PRIs and local communities in management and maintenance of drinking water supply schemes was found to be low and uneven across States.

[36] Operation and Maintenance Plan was prepared for **Major Schemes** only.
[37] Department claimed to have such plan. However, supporting documents were not produced.
[38] Statement number D13 of IMIS.

Assam

Store and Workshop division, Guwahati, procured 37,471 sets of Slow Moving Spare Parts for Direct Action Hand Pump (DAHP) valued at ₹ 83.02 crore. Each set consisting of 25 items were supplied in two boxes (Box-I and II) during 2011-15. Out of 37,471 sets, 18,706 sets (Box-I) were issued to the executing PHE divisions for repairing of DAHPs leaving 18,765 sets in stock (July 2017). Out of 18,706 sets issued to divisions, 5,220 sets (Box-I) were received by the selected 13 divisions. Of these, 1,802 sets were utilised by the selected divisions leaving 3,418 sets in stock.

Divisional Officers stated that spare part sets were received without these being requisitioned. After installation, the DAHPs were handed over to the public/community and these were maintained by the community itself. Thus, the procurement of Slow Moving Spare Parts for DAHP was injudicious.

4.5.4 Non-functioning of schemes

Adequate and efficient O&M is essential for ensuring that water supply schemes remain functional. Test check of records in 17 States (**Arunachal Pradesh, Assam, Chhattisgarh, Gujarat, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Nagaland, Odisha, Rajasthan, Tamil Nadu, Tripura** and **Uttar Pradesh)** revealed that 1,03,486 water supply schemes had become non-functional due to reasons which included inadequate maintenance.

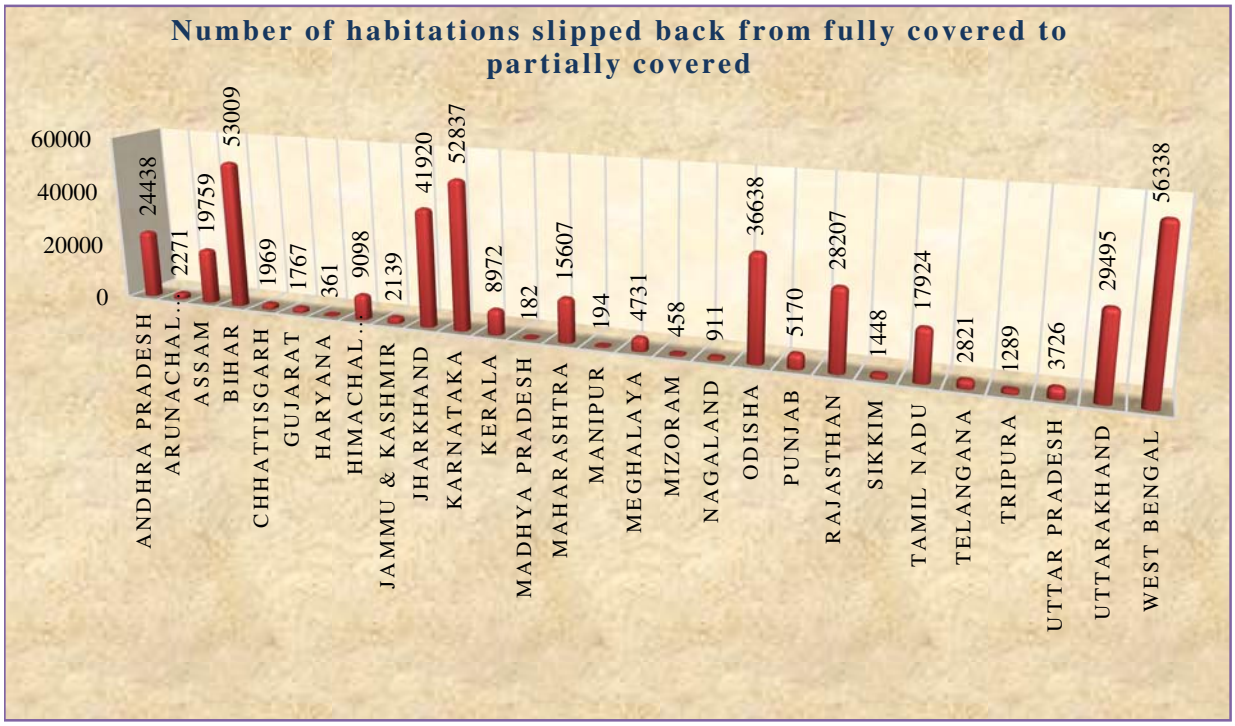
Though O&M is essential for ensuring uninterrupted water supply to habitations, non-utilisation of allotted funds and deficiencies in undertaking O&M activities coupled with inadequate involvement of PRIs in management of water supply schemes compromised its effectiveness and adequacy.

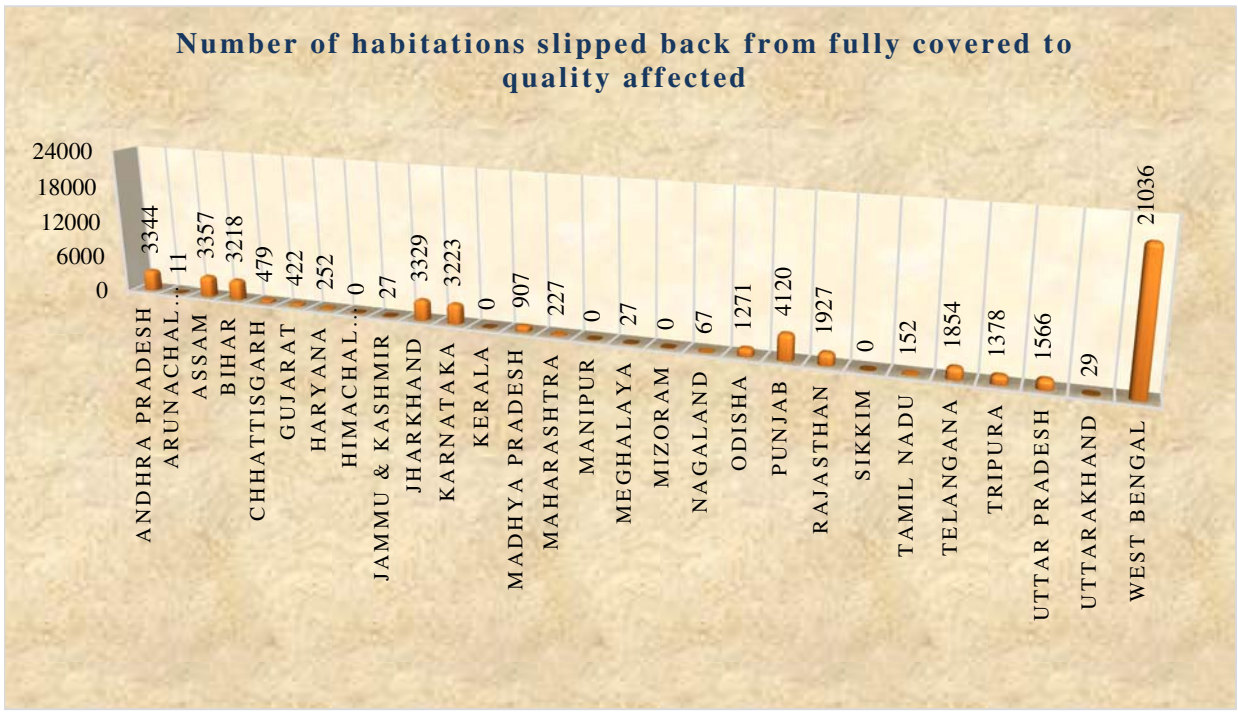
Ministry stated (February 2018) that the re-structuring of the Programme approved in November 2017 will address the problem of non-functional schemes as it links allocation of 25 *per cent* of funds with the percentage of completed piped water schemes found to be functional through third party surveys.

4.6 Persistence of slip-back habitations

C&AG's Performance Audit Report (No.12 of 2008) on the Accelerated Rural Water Supply Programme had highlighted the problem of slip-back of habitations from fully covered to partially covered. The Ministry, while stating that slippage was unavoidable, had intimated that it had revised its strategy by focussing on sustainability so that the phenomenon of slippage is reduced. The PAC, in its Report No. 35 of 2011-12 had recommended that the Ministry should impress upon the States to ensure that habitations do not slip-back further. However, 4.76 lakh habitations had slipped back during the period 2012-2017. The State-wise slip-back habitation during this period is given in **Chart-4.8:**

Chart-4.8





***Source**: IMIS data of the Ministry*

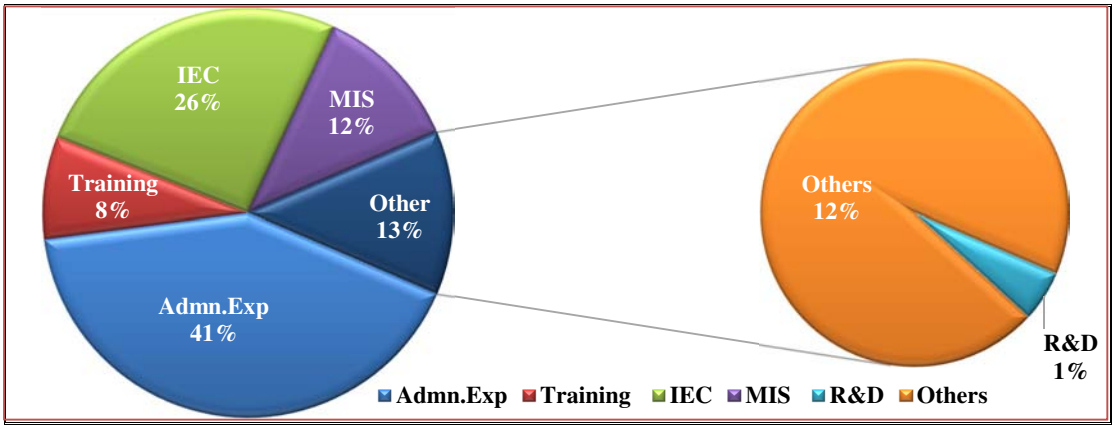
It is evident that the phenomenon of slip-back habitations had continued to persist. The number of slip-back habitations was markedly high in States such as **Andhra Pradesh**, **Bihar, Karnataka, Jharkhand, Odisha, Rajasthan, Uttarakhand** and **West Bengal.** The reasons for habitations slipping back from the category of fully covered to partially covered are excessive extraction of ground water, inadequacy of efforts to address

quality related aspects, lack of sustainability of water sources, and inadequate/non-maintenance of water supply schemes.

4.7 Support Activities

Support activities include (i) engagement of consultants by WSSO and DWSM, (ii) setting up and running of BRCs, (iii) supporting awareness creation and training activities, (iv) giving hardware and software support at district and sub-divisional level, (v) research and development activities relevant to the State and (vi) engagement of STA. The percentage expenditure under different heads under Support Activities during 2012-17 is given in **Chart-4.9** below:

Chart-4.9: Financial performance under Support Activities: 2012-17



***Source**: IMIS data of the Ministry*

Thus, the expenditure on Support Activities was predominantly (41 *per cent)* on administration and establishment and functional aspects such as IEC, Training and R&D accounted for much smaller share of expenditure.

4.7.1 Non-preparation/implementation of Support Activity Plan

Action plan for Support Activities consisting of areas such as Information, Education and Communication (IEC), training and capacity building are to be need-based and should be approved by the SLSSC before or at the commencement of each financial year.

Audit observed that action plans for support activities were either not prepared or not included in AAP in **Andhra Pradesh, Sikkim** and **Telangana.** Audit also noted non-utilisation of funds meant for support activities, shortfalls in achievement of targets and failure to organise training programmes and absence of R & D Activities in 19 States **(Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Goa, Himachal Pradesh, Jammu & Kashmir, Kerala, Madhya Pradesh, Maharashtra, Manipur,**

Meghalaya, Mizoram, Nagaland, Punjab, Rajasthan, Sikkim, Telangana and **Tripura)** as given in **Annexe-4.3.**

NRDWP is a demand driven and community based programme where effective and creative communication plays a crucial role in its success. As a result of lack of IEC, training and capacity building activities, awareness and motivation in the rural community remained low which affected planning, implementation and monitoring of the schemes.

Findings of Audit survey

- Results of water quality testing along with specified parameters were not displayed in 666 out of 773 GPs (86 *per cent*) and alerts/results of contamination of water was not communicated to 564 (73 *per cent*) GPs.
- Information, education and communication, human resource development and other awareness activities were not carried out in 497 GPs.
- 21,112 (75 *per cent*) beneficiaries stated that no training or awareness generating IEC activities was ever provided to them.

4.8 Water Quality Monitoring and Surveillance

The National Rural Drinking Water Quality Monitoring and Surveillance Programme (WQM&SP) was launched in February 2006 and thereafter subsumed in the NRDWP with effect from April 2009. A Uniform Drinking Water Quality Monitoring Protocol (UDWQMP) was issued by the Ministry in February 2013. This protocol lays down specific requirements for monitoring drinking water quality by establishing water quality testing labs in States. The parameters for these labs are also specified in terms of infrastructure, manpower and water quality testing facilities.

Three *per cent* of programme funds is to be allocated for the WQM&S component of NRDWP. These funds are to be used for monitoring and surveillance of water quality in habitations at field level and for setting up and upgrading water quality testing laboratories at State, district and sub-district levels. Availability and utilisation of funds are given in Table-3.3 in **Chapter-III**.

4.8.1 Shortages of labs, infrastructure and equipment for water quality testing

The State level laboratory had not been established in seven States **(Chhattisgarh, Jammu & Kashmir, Karnataka, Maharashtra, Meghalaya, Sikkim** and **Uttarakhand)**. In **20 States** where State level laboratories (SLLs) had been established, 15 had NABL accreditation. Further, out of the established 20 SLLs, only the SLL at **Odisha** had the capability of examining all 78 parameters as specified under UDWQMP. In nine[39] SLLs, the required technical manpower was not in place. Ten[40] SLLs were not adequately equipped in terms of infrastructure and testing facilities prescribed in the protocol referred above.

In addition to the above, shortfalls were observed in all the selected States with respect to availability of infrastructure for water quality testing such as laboratories at district and sub-divisional levels, accreditation of labs, compliance by labs with envisaged parameters and availability of manpower and equipment as detailed in **Annexe-4.4**.

Audit also observed the following:

In **Assam,** two mobile lab testing vans valuing ₹ 69.96 lakh were lying in a dilapidated condition with a PHE division since August 2015. In Vadodara and Junagadh districts of **Gujarat**, two mobile water testing laboratories procured (August 2014) at a cost of ₹ 0.52 crore were not put to use except for a short period of three months for want of drivers and chemists. In **Uttar Pradesh,** SLSSC approved (January 2015) 10 mobile water testing laboratories to ensure regular monitoring of the water sources. Funds amounting to ₹ 5 crore was released in July 2015 for the purpose but the mobile labs were still to be procured (July 2017).

In **Karnataka,** 100 block level water testing laboratories were set up at a cost of ₹ 92.10 crore during March 2014 and March 2015. However, due to the improper functioning of these laboratories, the concerned Department rescinded the contract with the agency that were running the Labs in April 2017. The block level laboratories in the State have remained completely non-functional since May 2017, in the absence of any alternative arrangement for water testing.

In **Rajasthan,** contract for 165 block level laboratories expired in March 2016. The tendering process for a new contract for running these was yet to be finalized (March 2017). Thus, the facility of water testing at the block levels has not been available since March 2016.

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[39] Andhra Pradesh, Bihar, Goa, Gujarat, Himachal Pradesh, Karnataka, Odisha, Rajasthan and Uttar Pradesh

[40] Arunachal Pradesh, Assam, Gujarat, Madhya Pradesh, Manipur, Mizoram, Nagaland, Punjab, Tamil Nadu and Uttar Pradesh.

Such gaps in provision of labs, infrastructure and equipment for water quality testing contributed to extensive shortfalls in conduct of prescribed water quality testing as discussed in para 4.8.2 below.

4.8.2 Shortfall in water quality testing

According to the Programme guidelines, 100 *per cent* sources were to be tested at sub-divisional laboratories level both for bacteriological and chemical contamination. Testing for chemical and physical parameters was required to be carried out once in a year and twice a year during pre and post monsoon months for bacteriological parameters. District level labs were required to check 10 *per cent* of samples including positively tested samples from sub-divisional laboratories. The State lab was to carry out routine cross-verification of water samples. Programme guidelines also laid down that all *Gram Panchayats* and water quality testing laboratories would use Field Testing Kits (FTKs) for primary investigation.

Test check disclosed shortfalls in all the selected States with respect to conduct of three prescribed tests[41] on all the water sources during a year. In addition, there were shortfalls with respect to performance of envisaged tests against parameters and on samples. The shortfalls were attributed by States to factors such as non-functioning of labs, and lack of equipment, manpower and funds. Details are given in **Annexe-4.5.**

Further, FTKs were neither procured in the required numbers nor were those acquired fully utilised to carry out the prescribed tests. In five States (**Andhra Pradesh, Assam, Jharkhand, Odisha** and **Uttar Pradesh),** 13.25 lakh FTKs/refills valued at ₹ 6.50 crore had not been used and their shelf life had expired making the expenditure on kits/refills infructuous.

Test check in the selected States brought out the following:

Andhra Pradesh: During physical verification of water sample test reports of habitations of selected districts, audit observed that concerned laboratories reported safe/potable water even though the acceptable permissible limits as per Bureau of Indian Standards (BIS) were exceeded and department continued to provide unsafe water to the population.

Further, State Government identified the presence of uranium contamination in Nagarjuna Sagar and Kadapa areas of **Andhra Pradesh** and informed the same to the Ministry (March 2014). Ministry suggested (March 2014) that help of Bhabha Atomic Research Centre (BARC) may be taken for testing uranium. However, no action was

[41] Two bacteriological (Pre and Post Monsoon) and one chemical test

initiated for creating facilities for testing Uranium contamination in drinking water (July 2017).

Odisha: As per Central Ground Water Board data, ground water in 28 out of 30 districts was contaminated with nitrates. But laboratories were not testing the mandatory parameters such as nitrate, arsenic, alkalinity (January 2017).

Karnataka

During physical verification, it was observed that 15 block level laboratories in the selected districts were either not adequately staffed or staff were not adequately trained. As a result, the labs did not conduct envisaged tests and equipment were either not being used or not functional. It was observed that test results were being uploaded on IMIS without authentication by the concerned Departmental authorities and without conducting tests on water samples for all the parameters. None of the samples reported to be contaminated by these laboratories were forwarded to District laboratories for cross-verification. The Departmental authorities also did not insist on cross-verification before considering a habitation as contaminated and taking up works in such habitations. As a result, the entire process of water quality testing and consequent declaration of habitations as quality affected was flawed.

Department rescinded the contract with the agency (April 2017) on abovementioned irregularities. Consequently, block level laboratories in the State remained completely non-functional since May 2017 without any alternate arrangement for water testing.

Shortfalls in prescribed testing of water sources increased the risks of supply of contaminated water to habitations and households and undermined the Programme objective of ensuring supply of safe drinking water.

4.8.3 Non-review of water quality testing

As per the Uniform Drinking Water Quality Monitoring Protocol, State level labs were required to be headed by a Chief Chemist reporting directly to the Engineer in Chief of the implementing Department. The Chief Chemists were to undertake an annual review of the water quality test reports to enable framing of a policy for water quality monitoring. However, no such annual review of water quality test reports of the different level laboratories was carried out by the Chief Chemists in 20 States (**Andhra**

Pradesh, **Arunachal Pradesh**, **Assam, Chhattisgarh, Gujarat, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Punjab, Sikkim, Tamil Nadu, Tripura** and **Uttar Pradesh**).

4.9 Audit summation

Lack of necessary focus and prioritisation keeping in view the deliverables that were to be achieved by 2017 resulted in their non-achievement. Only 44 *per cent* of rural habitations and 85 *per cent* of government schools and *anganwadis* could be provided safe drinking water against the target of covering all rural habitations, government school and *anganwadis* by December 2017. Further, against the Programme deliverables of providing 50 *per cent* of rural households/population with potable drinking water (55 lpcd) by piped water supply and at least 35 *per cent* of rural households with household connections by April 2017, the actual achievement as of December 2017 was only 18.4 *per cent* and 16.8 *per cent* respectively. Non-adherence to codal provisions relating to implementation of works, especially those mandating proper site investigations to ensure unimpeded execution of works once awarded resulted in different works remaining incomplete, abandoned or non-operational. The financial implication of such deficiencies together with unproductive expenditure on equipment and gaps in contract management worked out to ₹ 2,212.44 crore.

The implementing authorities also failed to pay adequate attention to the need to ensure water quality and there were significant shortfalls in provision of mitigating measures such as Community Water Purification Plants. In the case of the sustainability component, plans were not prepared and adequate funds were not allocated for the purpose in several States. O&M which is important for ensuring uninterrupted water supply to habitations was inadequate and not being managed by the PRIs. As a result of inadequate efforts with regard to quality, sustainability and maintenance of water supply schemes, the incidence of slip-back of habitations continued to be high.

Thus, despite large outlays and an elaborate delivery mechanism, gaps remained in the implementation of the Programme which affected attainment of Programme objectives and goals in terms of provision of adequate and safe drinking water on a sustainable basis.

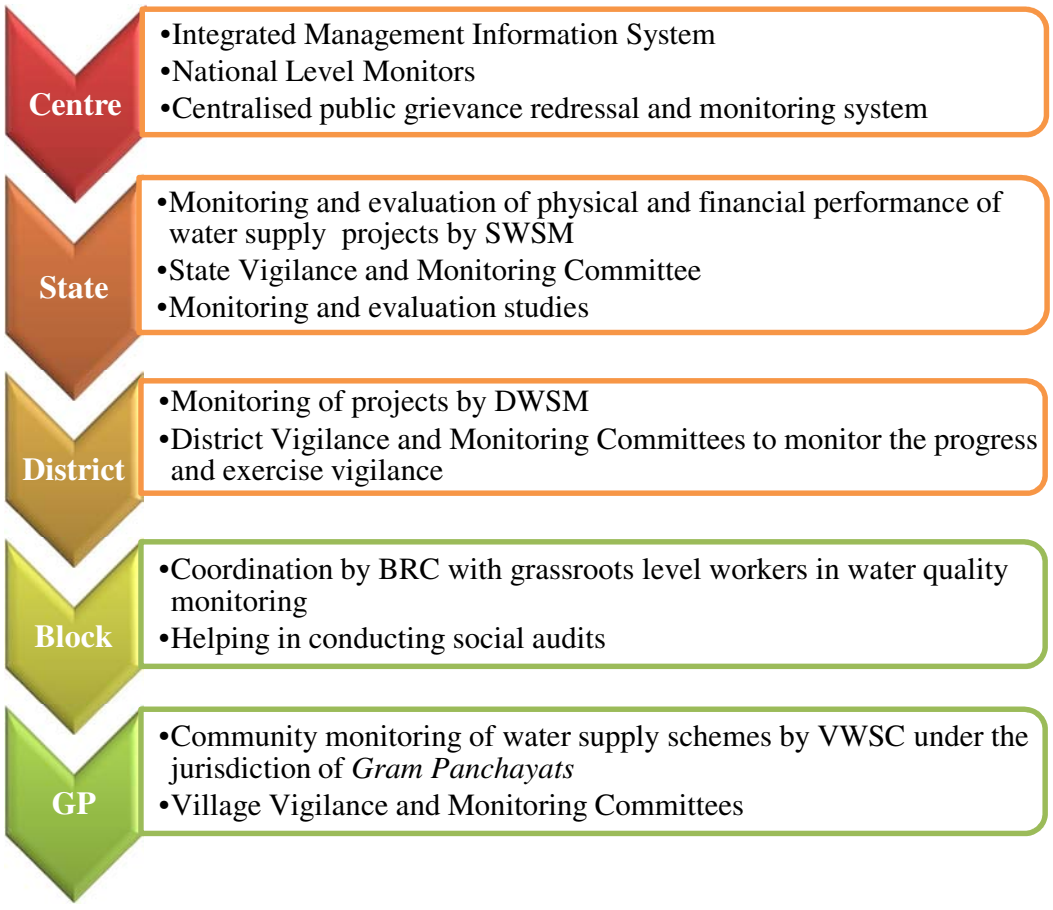
Chapter-V Monitoring and Evaluation

5.1 Introduction

Monitoring and evaluation are essential for ensuring efficient utilisation of programme resources so that the envisaged outputs and outcomes are achieved within the planned timeframes. As government programmes are executed over long time periods and at different levels, it is imperative to have a robust and effective programme monitoring and evaluation system.

The Programme guidelines provide for an elaborate set up for monitoring and evaluation spanning all levels i.e. the National, State and Community levels as given in **Chart-5.1**.

Chart-5.1: Structure of Monitoring and Evaluation



Source: Programme guidelines

5.2 Integrated Management Information System

The Ministry deployed an "Integrated Management Information System (IMIS)" as a web based information system designed to enable authorities at all levels across India to monitor progress of the various components under the Programme including coverage of rural habitations, schools and *anganwadis.* IMIS also aimed at ensuring proper reporting and make implementation transparent as well as facilitate programme planning and monitoring.

The National Informatics Centre (NIC) is the Chief Technical Consultant to the Ministry with respect to functioning of the IMIS. At the Central level, NIC is in-charge of management of the Central database and is responsible for all software development and training. The State level units of NIC assist the SLSSCs in implementing the IMIS project. The State governments were to provide necessary infrastructure support at all levels i.e. sub-division, district and State level. Further, a State IT Nodal Officer was to be identified with responsibility for oversight in respect to regularity and accuracy of the data being furnished by the districts.

The IMIS database was reviewed during audit and the main findings are discussed in subsequent paragraphs.

5.2.1 Lack of support by States

Audit observed that 11 States of **Arunachal Pradesh, Goa, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Nagaland, Odisha, Sikkim, Uttar Pradesh** and **Uttarakhand** did not appoint a State IT Nodal Officer. Further, 12 States viz. **Goa, Jammu & Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Mizoram, Nagaland, Punjab, Sikkim, Tamil Nadu, Uttar Pradesh** and **Uttarakhand** had no mechanism for authentication and validation of data entered in the IMIS. In the absence of nodal officers and systems for data authentication and validation, several instances of discrepancies and inaccuracy in data entered in the system was noticed during audit. Ministry stated (February 2018) that States would be asked to rectify the data inconsistencies.

5.3 Analysis of IMIS Database

The IMIS system is primarily based on data entered across the country at different levels of the implementation hierarchy by users in the States and districts. IMIS data was analysed at the Central level by using data analytics tools[1] on data dump of IMIS[2] furnished by the Ministry to identify inconsistencies and inaccuracies in data along with data trends and outliers. In addition, IMIS data was compared with manual records maintained by authorities at different levels. Audit analysis brought out the following:

[1] SQL Server and Computer Assisted Audit Tools *viz.* TABLEAU, Excel, etc.

[2] In August 2017, database dump was restored in SQL Server 2012 and relevant tables of the IMIS database were analysed

5.3.1 Data inconsistencies and lack of validation controls

➢ Invalid sanction-years i.e. years prior to the commencement of the scheme and beyond current year 2017-18 were entered under 'Sanction Year' in the case of 6,494 schemes. Further, "not known" was recorded against sanction years in case of 1,80,347 schemes. Thus, data against fields critical for monitoring the schemes were either not provided or were inaccurate in a large number of cases reducing the value of IMIS as a monitoring tool.

➢ Out of a total of 71,58,386 schemes, date of completion in the case for 3,27,086 schemes was recorded as dates prior to independence. Out of these 3,27,086 schemes, in 1,02,753 schemes the recorded sanction year was before 2001-02 and in 79,003 schemes it was 2001-02 or later. As such IMIS was permitting entry of completion dates which were prior to the sanction year. In the remaining 1,45,330 schemes, sanction year was recorded as "Not Known". In the case of 244 Schemes, the completion year entered was beyond 31 March 2030.

➢ In the case of 1,055 schemes, though data furnished was as of 31 March 2017, completion dates of schemes recorded was on or after 01 January 2018. Of these, date of commencement was shown between 01 April 2019 and 31 March 2020 in 27 schemes and in 94 schemes date of commencement was shown as beyond 01 April 2025. In the case of 13,16,258 schemes, the date of commencement and the date of completion was shown as being the same which shows absence of proper validation checks in the system. Ministry stated that for spot sources, the system allows the date of commencement and completion to be same as these schemes can be completed within a day. The reply is not acceptable as the cases cited also contained other than 'Spot' Schemes.

➢ For 9,039 schemes, the date of completion was entered as being before the date of commencement which shows incorrect data entries in the system. Ministry stated that the data has to be corrected by the respective State Governments and NIC has now implemented server side validations for data that is being imported through back-end.

➢ Status of water quality in habitation profile data has been shown as safe whereas in source/delivery point report it is shown as not fit for drinking and *vice-versa* (**Bihar** and **Karnataka).**

➢ Instances of inconsistency in IMIS data such as variation in number of water supply sources (Format B-6 and B-28), against expenditure of supply of tankers, physical status was 'nil' (Format C-31), variation in earmarked expenditure on chemical and bacteriological affected habitation during 2015-17 (Format D-1 and D-8A) were noticed and have been detailed in **Annexe-5.1**.

The above-mentioned data inconsistencies indicated a lack of validation controls that allowed incorrect entries to be accepted for fields critical for monitoring progress of schemes and led to generation of incorrect MIS reports.

5.3.2 Discrepancies in data of IMIS with field record

Audit observed that data obtained from field records did not match with the data available in IMIS. These discrepancies were found to exist for important aspects such as number of schemes; number of non-functional schemes; quality affected habitations; availability of community water purifying plants and water testing laboratories. Examples of inconsistent data for different States are given **in Annexe-5.2.**

Bihar

- In district Bhabua, out of two schemes covering 17 Fluoride affected habitations sanctioned during 2012-17, only one scheme covering two habitations was completed but IMIS data showed 34 habitations as being covered. Further, as per IMIS data, there was no habitation/population under Iron contamination in the district but data obtained in the field showed that 239 water sources were affected with Iron contamination.
- In district Saran, 85 sources were affected with contamination during 2012-17. During 2013-14, bacteriological contamination was found in six sources. However, as per IMIS data, there was no habitation/population under any contamination in the district.
- In district Muzaffarpur, 201 water sources were affected during 2012-17 from iron contamination. However, as per IMIS data, there was no habitation/population under Iron or any other contamination in the district.
- In district Nawada, three schemes for covering 113 fluoride affected habitations were sanctioned during 2012-17 of which one scheme covering two habitations had been completed. However as per IMIS data, 32 habitations were shown as having been covered. Further, as per data made available by the concerned Division, 272 habitations were affected from Fluoride contamination during 2012-17. However, as per IMIS data, only 96 habitations were reported to have Fluoride contamination.
- In district Samastipur, as per IMIS data, five habitations were affected from Fluoride contamination as on 1 April 2012 and no habitation shown as fluoride contaminated as on 31 May 2017 despite the fact that no scheme was sanctioned and executed to remove Fluoride contamination in ground water. As per data made available by the division, out of 15,549 sources, 2,825 sources were iron affected, four sources were nitrate affected and 812 sources were Arsenic affected during 2012-17. However, IMIS data showed 186 habitations with arsenic contamination.

Gujarat

In 10 selected districts, 10,913 samples (14 *per cent*), out of 77,064 samples tested in water testing laboratories during 2015-17 were found unfit for drinking due to presence of fluoride, nitrate, alkalinity, hardness, etc. However, these reports were not entered in IMIS.

5.4 Evaluation studies

Evaluation of impact of implementation of any programme is necessary for making mid-course corrections and for drawing lessons for reformulating guidelines and implementation strategies. Programme guidelines for NRDWP envisaged periodic evaluation studies by the Ministry. The State Governments were also required to take up similar monitoring and evaluation studies for which 100 *per cent* financial assistance would be provided by the Ministry.

Audit noted that the Ministry had got five evaluation studies conducted *viz.* (i) Assessment of Functionality of RDWS Scheme in **Bihar** (September–October 2014), (ii) Evaluation of Implementation of WQM&S Programme (August 2014), (iii) Evaluation of Impact of Sustainability Structures Constructed under NRDWP, (iv) Evaluation of Usage and Impact of Using Hydro Geo Morphological (HGM) maps on the Quality of Implementation of RWSS (September 2013), and (v) Status of Rural Water Supply in **Maharashtra** (2015) during 2012-17.

Major findings emerging from these studies included non-formation of Village Water and Sanitation Committees, lack of coverage of schools and *anganwadis*, non-functioning of schemes, low coverage of population with piped water schemes, presence of contaminated ground water, inadequate use of Field Test Kits for water quality testing, lack of sustainability structures, non-use of Hydro Geo Morphological maps for locating suitable site for source sustainable structures and in planning process and low penetration of IEC activities. Each evaluation study incorporated recommendations for addressing shortcomings/deficiencies noticed. With regard to follow up on the evaluations studies the Ministry stated that as these reports were state specific the concerned State Governments were asked to send the action taken reports to this Ministry. However, outcome of action taken on these studies was not monitored.

Audit also noted that the above studies were either issue specific or state specific and no comprehensive evaluation of the Programme had been undertaken by the Ministry covering all the States to assess the impact of NRDWP. Further, none of the selected States except **Odisha** and **Tamil Nadu** had conducted evaluation studies during the period of performance audit.

Report of Quality Council of India

During the period 5 December 2016 to 5 January 2017, Quality Council of India evaluated and assessed the functionality, sustainability, public perception and visual observation of quality water supplied. The survey covered piped water supply schemes completed during 2009 to 2016. The survey included assessment of 4,332 schemes (both single and multi-village) in 5,610 villages of 580 districts in 29 States.

Major findings were:

- 455 schemes (10.5 *per cent*) in 696 villages were not in existence.
- 348 schemes (eight *per cent*) in 526 villages were non-functional.
- In 526 villages where schemes were found non-functional the same was due to failure of infrastructure, pumping system and pipe lines (38 *per cent*) and drying of sources (19 *per cent*).
- 57 *per cent* of surveyed villages did not have sufficient water supply of 50 lpcd or more.
- Out of 4,387 villages where scheme was functional, 782 villages (18 *per cent*) experienced breakdowns of more than 20 days in a year.
- 22 *per cent* of the surveyed villages with functional schemes had less than 2 hours of water supply.

5.5 National Level Monitors

National level monitoring is a comprehensive system of independent monitoring of Programmes evolved by the Ministry of Rural Development. National Level Monitors (NLMs) visit districts to ascertain implementation of Programme and verify the assets created and interact with officials and villagers. As per extant norms, there are to be quarterly round of visits and approximately 150 districts are to be covered in each round so as to cover all the districts in the country in a year. Based on their findings, a report is submitted within a given time frame to the Ministry for follow-up action.

During the period 2012-17, NLMs visited 24,420 villages in 6,995[3] blocks to review the implementation of NRDWP. The reports submitted by the NLMs highlighted issues such as non-availability of safe water sources/insufficient water availability, water sources affected by seasonal variations, poor operation and maintenance of water supply schemes, non-functionality of water sources, poor quality of water supplied in the villages, issues relating to water quality testing and sustainability, water supply

[3] No. of blocks for the first half of 2012-13 were not available

management and non-availability of drinking water in schools and *anganwadis.* It was found that the Ministry did not initiate any action on these reports except seeking compliance of the States based on inter-active workshops of NLMs held during October-November 2014 on which replies of States were awaited.

Ministry stated (February 2018) that earlier NLMs engaged by the Ministry of Rural Development were covering both rural development schemes and schemes being implemented by Ministry/Department of Drinking Water and Sanitation. However, the Ministry was now separately engaging NLMs for over-seeing the implementation of NRDWP and for giving feed back to the Ministry. Specific engagement of NLMs for NRDWP has commenced only from September 2017.

Thus, while visits by NLMs were taking place, the Ministry did not have an established system for examining the reports of NLMs and taking follow up action thereby undermining the purpose and utility of the visits. It has only recently begun specific assignment of inspection of NRDWP to NLMs.

5.6 Grievance Redressal System

A web-based public grievance redressal portal was launched by the Ministry to enable citizens to lodge their grievances on rural water supply. Action taken against each grievance is recorded by the system and displayed. As on 1 September 2017, out of 855 grievances received by the Ministry related to availability and quality of water, 402 grievances were closed after taking action.

Out of 52 grievance cases taken up for examination, it was seen that more than five months were taken in 23 cases (44 *per cent*) to initiate action for resolution of the complaint. Further, no time frame had been fixed for disposal of complaints and as of 25 October 2017, 409 grievances were pending for more than 30 days.

Programme guidelines provided for establishment of Computerised Grievance Redressal System by State governments with financial support from the Ministry. It was found that no such Grievance Redressal Mechanism had been set up in 15 States of **Andhra Pradesh, Arunachal Pradesh, Assam, Goa, Gujarat, Himachal Pradesh, Jammu & Kashmir, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim** and **Tamil Nadu**.

Ministry stated (February 2018) that it forwards grievances received to the concerned authority in the States for redressal as the ultimate responsibility for doing so rests with them.

Assam

A grievance redressal system was established at a cost of ₹ 3.11 crore which included cost of operations for a year. The firm after establishing and operating the system for one year, requested (November 2014) WSSO to take over the system. During joint physical verification (16 August 2017) audit found that grievance redressal system was not operational. Director, WSSO stated (August 2017) that system had been non-operational since December 2016 due to lack of staff and discontinuation of internet connectivity by the service provider i.e., BSNL.

5.7 Non-constitution of Team of Experts for Field Inspections at district level

Programme guidelines[4] stipulate that DWSMs shall constitute a team of experts in the district who shall review the implementation in different blocks frequently. Such review shall be held at least once in a quarter. Inspections shall be done to check and ensure that the water quality monitoring and surveillance programme is being implemented in accordance with norms and also that the community has been involved in the analysis of water samples using field test kits.

DWSMs in 23 States viz. **Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Goa, Gujarat, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Punjab, Rajasthan, Sikkim, Tamil Nadu, Telangana, Tripura, Uttar Pradesh** and **Uttarakhand,** did not constitute any team of experts to check and ensure that the water quality monitoring and surveillance programme was implemented as envisaged in guidelines. In **Chhattisgarh**, though a team of experts was stated to have been constituted in two districts, no record was produced to substantiate the same.

5.8 Failure to undertake required reviews of Programme by SWSM

Programme guidelines stipulate that SWSMs shall conduct a review of the Programme in the districts once in six months. SWSM did not conduct any review of the Programme in 17 States of **Arunachal Pradesh, Chhattisgarh, Goa, Gujarat, Himachal Pradesh, Jammu & Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Rajasthan, Sikkim, Uttar Pradesh** and **Uttarakhand.**

[4] Para 8 of Annexure-III Framework for Water Quality Monitoring & Surveillance (WQM&S)

In **Andhra Pradesh, Odisha** and **Telangana**, though it was stated that review meetings were held once in six months, minutes of meetings were not prepared. In **Assam**, the periodical review meetings were conducted at State Headquarters with the divisional representatives instead of in districts. In **Tripura,** the SWSM met once instead of twice every year to review the Programme.

5.9 Non-setting up of Vigilance and Monitoring Committee

As per Programme guidelines, Vigilance and Monitoring Committees (VMC) are to be constituted at State, district[5] and village levels to fulfil the objective of ensuring quality of expenditure particularly in the context of large public funds being spent under the Programmes. Members of Parliament and elected public representatives in State Legislatures and *Panchayati Raj* Institutions were expected to play a critical role in the functioning of the committees with respect to implementation of all rural development programmes including NRDWP.

Audit observed that VMCs were neither set up at the State level nor at the village level in 13 States i.e. **Arunachal Pradesh, Assam, Bihar, Gujarat, Himachal Pradesh, Jammu & Kashmir, Madhya Pradesh, Maharashtra[6], Manipur[7], Nagaland, Rajasthan, Sikkim** and **Telangana**. In nine States {**Andhra Pradesh** (3)**, Arunachal Pradesh** (3)**, Assam** (3)**, Himachal Pradesh** (2)**, Karnataka** (1)**, Maharashtra** (3)**, Meghalaya** (2)**, Nagaland** (3) and **Sikkim** (1)}**,** district level VMCs were not set up in 21 (out of 53) selected districts.

5.10 Absence of Social Audit

Social audit helps narrow the gap between the perception of the line department's definition of services provided and the beneficiaries' level of satisfaction. Programme guidelines provide for a social audit every six months on a fixed date by community organisations such as GPSWC, VWSC and User Groups to ensure that the works undertaken are as per the specification and funds utilised are in accordance with works undertaken.

Audit observed that social audit of the programme was not being conducted in 23 States of **Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Himachal Pradesh, Jammu & Kashmir, Karnataka, Madhya Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Punjab, Rajasthan, Sikkim, Tamil Nadu, Telangana, Tripura** and **Uttar Pradesh.**

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[5] As per the Ministry of Rural Development letter dated 26 July 2016, District Development Coordination and Monitoring Committee (DISHA) has superseded District Vigilance and Monitoring Committee.

[6] Village level VMC not constituted in 33 out of 54 selected GPs.

[7] Department stated that SLVMC is in existence. However, supporting documents were not produced.

5.11 Non-setting up of Monitoring and Investigation Unit

Programme guidelines provide that a special Monitoring Cell and Investigation Unit at the State headquarters be set up with necessary supporting staff. The Monitoring unit shall be responsible for collecting information from the executing agencies, maintenance of the data and timely submission of the prescribed data online to the Central Government by due dates. The unit shall also be responsible for monitoring aspects of quality of water, adequacy of service and other related qualitative aspects of the Programme at the field level.

Audit observed that Monitoring Cell and Investigation Units were not set up in 12 States of **Andhra Pradesh, Arunachal Pradesh, Assam, Himachal Pradesh, Karnataka, Madhya Pradesh, Manipur, Punjab, Sikkim, Tamil Nadu**[8]**, Telangana** and **Uttarakhand**. In **Uttar Pradesh,** the unit was working with one official against the sanctioned post of four.

The absence or inadequate functioning of monitoring committees was indicative of deficient monitoring of the Programme.

5.12 Audit summation

The Integrated Management Information System was the principal tool devised by the Ministry for effective monitoring the Programme. However, the IMIS data was inconsistent and erroneous with mismatch between IMIS data and corresponding manual data. This undermined its utility as a meaningful management tool for realistic monitoring.

Further, institutional mechanisms for effective monitoring and grievance redressal were weak and inadequate at the State, District and village levels. Grievance Redressal Mechanisms were not in place and team of experts were not constituted in several States.

Neither the Ministry nor the States had undertaken a comprehensive evaluation of the Programme during the period covered by Audit. As a result, the impact and outcomes from the Programme remained unassessed.

[8] EDP wing under the control of EDP Manager in TWAD Board was collecting and uploading various data in IMIS.

Chapter-VI Conclusion and Recommendations

The Programme was launched with the primary objective of providing safe and adequate drinking water to the rural population on a sustainable basis. The 12th Plan aimed at providing all rural habitations, schools and *anganwadis* with safe drinking water by 2017 against which actual achievement of covering habitations was only 44 *per cent* and 85 *per cent* for schools and *anganwadis.* The Plan also placed emphasis on piped water supply with a goal of providing 50 *per cent* of rural households/ population with potable drinking water (55 lpcd) by piped water supply and at least 35 *per cent* of rural households with household connections by April 2017. The actual achievement (December 2017) against these deliverables was however only 18.4 *per cent* and 16.8 *per cent* respectively.

The planning and delivery framework was deficient with most States not framing Water Security Plans or comprehensive Annual Action Plans. The apex level National Drinking Water and Sanitation Council that was set up to co-ordinate and ensure convergence remained dormant during the period covered in the performance audit exercise. Other bodies critical for planning and execution of the Programme such as State Water and Sanitation Mission, State Technical Agency, Source Finding Committee, Block Resource Centres were also either not set up or were not performing their assigned functions. Thus, the Programme faced constraints both in terms of planning and delivery which subsequently affected achievement of programme goals and targets.

NRDWP is implemented as a Centrally Sponsored Scheme with cost being shared between the Central and State Governments. It was however noticed that availability of funds for the Programme decreased from 2013-14 to 2016-17. Moreover, even the funds allocated could not be fully utilised. The constraints of funds were accentuated by diversion of funds amounting to ₹ 358.59 crore towards inadmissible items of expenditure and blocking of funds of ₹ 304.02 crore with State Water and Sanitation Missions and work executing agencies.

Lack of proper site investigations and timely obtaining of requisite statutory and other mandatory clearances as stipulated in the codal provisions coupled with poor contract management and enforcement of contractual terms in cases of default by contractors resulted in works remaining incomplete, abandoned or non-operational as well as unproductive expenditure on equipment with an overall financial implication of ₹ 2,212.44 crore.

Ensuring water quality and sustainability was a principal element of the scheme. However, Community Water Purification Plants could be provided to only five *per cent* of quality affected habitations and sustainability plans were either not prepared/

implemented or not included in Annual Action Plans. There was inadequate focus on surface water based schemes and a large number of schemes (98 *per cent*) including piped water schemes continued to be based on ground water resources. Further, Operation and Maintenance plans were either not prepared in most of the States or had deficiencies leading to schemes becoming non-functional. As a result, incidence of slip-back habitations continued to persist. Further, lack of requisite number of States/district/sub-divisional level laboratories resulted in shortfalls in prescribed quality tests of water sources and supply thereby diluting the objective of providing safe drinking water to the rural population.

Lastly, institutional mechanisms for inspection, vigilance and monitoring were either not established or were not functioning in the manner envisaged and the overall monitoring and oversight framework lacked effectiveness.

Thus, the overall coverage of rural habitations increased by only eight *per cent* at 40 lpcd and 5.5 *per cent* at 55 lpcd even after incurring of expenditure of ₹ 81,168 crore during the period 2012-17.

Recommendations:

Based on the audit findings, we recommend as follows:

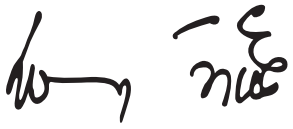
- ✓ In view of the fact that the institutional framework for planning and delivery as contemplated in the programme guidelines were either non-existent or non-functional in a large number of States, Ministry should review the feasibility and practicality of these mechanisms to ensure that they serve the intended purposes.
- ✓ Water security plans and annual action plans must be prepared with community participation to ensure that schemes are aligned to community requirements and ensure optimum and sustainable utilisation of water resources.
- ✓ Ministry must strengthen capacity building/IEC at block and village levels so that they are equipped and empowered to meaningfully participate in the planning, management and monitoring of scheme and programme.
- ✓ Planning should take into account state specific aspects and requirements and towards this end, Ministry should stipulate a realistic timeframe for preparation of State Specific Policy Framework and Annual Action Plans that may also be monitored by the Ministry.
- ✓ Allocation of resources for the Programme should be dynamic and based on a clear assessment of requirements and achievements under each component.
- ✓ Plans and schemes should be granted approval only after technical and sustainability aspects have been duly vetted and it should be ensured that all clearances are in place so as to ensure unimpeded execution of the works/schemes.

- ✓ Focus should be placed on effective works and contract management so as to ensure that works are completed in time as per the contractual terms. Any default on the part of contractors should be viewed strictly in accordance with the contract stipulations so as to penalise delays attributable to the contractors and enforce accountability.
- ✓ Focussed attention should be accorded to mitigating measures in all quality affected habitations to ensure availability of safe drinking water and infrastructure for testing water quality should be made effective so as to meet the objective of providing safe drinking water.
- ✓ Ministry should improve the effectiveness of all envisaged monitoring tools including Integrated Management Information System so that both Programme planning and implementation are strengthened.

(MAMTA KUNDRA)
Director General of Audit,
Central Expenditure

New Delhi
Dated: 07 May 2018

Countersigned



(RAJIV MEHRISHI)
Comptroller and Auditor General of India

New Delhi
Dated: 09 May 2018

Annexes

Annexe-1.1 (A)
Process and Mechanism for Sampling
(Refer to para 1.5.4)

Ist Stage (Districts[1])	25 *per cent* of the districts excluding DDP districts from each region (subject to a minimum of two) were selected by Probability Proportional to Size Without Replacement (PPSWOR) method with size measure as total NRDWP expenditure during 2012-17.
	Out of 40 DDP districts in seven states[2], 25 *per cent* of districts (subject to a minimum of two) were selected by PPSWOR method with size measure as entire expenditure in these DDP districts during 2012-17.
	In each selected district, two divisions selected for detailed examination by PPSWOR method with size measure as total NRDWP expenditure during 2012-17.
IInd Stage (Blocks)	Within each selected district in the 1st stage, 20 *per cent* rural blocks (subject to minimum two and maximum four) were selected by PPSWOR method with size measure as number of drinking water supply schemes completed during 2012-17.
IIIrd Stage (*Gram Panchayats*)	After having selected the sample blocks in the 2nd stage, two *Gram Panchayats* from each block were selected on Simple Random Sampling Without Replacement (SRSWOR).
IVth Stage (Beneficiary survey)	From each selected *Gram Panchayat*, based on SRSWOR, four habitations were selected. For the purpose of impact assessment, 10 households were selected from each of the four selected habitations using SRSWOR.

[1] Maximum of 10 districts was to be selected.
[2] Andhra Pradesh (1), Gujarat (6), Haryana (7), Himachal Pradesh (2), Jammu & Kashmir (2), Karnataka (6) and Rajasthan (16).

Annexe-1.1 (B)
Details of habitations surveyed
(Refer to para 1.5.4)

Habitations coverage status	Fully covered	Partially covered	Quality Affected	Not covered by any water supply scheme
	1,279	976	39	28
Habitations covered through	Piped water supply	Hand-pump/ Tube-Well	Others	Not covered by any water supply scheme
	1,312	894	88	28
Source of supply	Ground water	Surface water	Others	Not covered by any water supply scheme
	1,738	535	21	28

Annexe-1.1 (C)
Profile of beneficiaries surveyed
(Refer to para 1.5.4)

Household/ Beneficiaries	General	Schedule Caste	Schedule Tribes	Others	Total
Male	4,506	2,815	3,032	4,742	15,095
Female	3,871	2,786	3,365	3,469	13,491
Total	8,377	5,601	6,397	8,211	28,586

Annexe-1.2
Details of Sample Selected
(Refer to para 1.5.4)

Name of State	District		Division		Block		*Gram Panchayat*		Habitation		Beneficiary
	Total	Selected	Total	Selected	Total	Selected	Total	Selected	Total	Selected	Surveyed
Andhra Pradesh	13	5	13	9	284	10	182	20	61	44	800
Arunachal Pradesh	16	4	7	6	25	8	299	16	149	64	640
Assam	27	9	17	13	107	23	296	46	1,394	184	1,840
Bihar	38	10	12	12	160	20	213	40	187	111	1,600
Chhattisgarh	27	8	13	11	51	16	1,347	32	251	113	1,280
Goa[3]	2	2	0	0	0	0	0	0	0	0	0
Gujarat	33	10	19	17	81	20	1,197	40	87	73	1,600
Himachal Pradesh	12	6	12	12	38	13	446	26	387	104	1,021
Jammu & Kashmir	22	7	17	10	55	14	326	29	63	66	698
Jharkhand	24	6	8	8	90	19	340	38	848	152	1,520
Karnataka	30	10	10	10	60	20	748	40	293	160	1,600
Kerala	14	4	15	8	46	8	58	16	295	64	640
Madhya Pradesh	51	10	10	10	72	22	1,650	44	294	176	1,623
Maharashtra	34	10	0	0	126	27	976	54	109	85	2,160
Manipur	9	4	5	5	20	8	387	19	44	38	640
Meghalaya	11	4	7	7	16	8	1,653	16	39	35	640
Mizoram	8	2	6	4	8	4	94	8	9	9	90
Nagaland	11	3	6	6	22	6	142	22	142	22	220
Odisha	30	8	13	13	109	24	540	48	1,113	192	1,920
Punjab	22	7	17	11	48	14	318	28	30	28	1,080
Rajasthan	33	10	36	18	71	20	654	39	93	87	866
Sikkim	4	2	0	0	5	4	85	8	156	32	319
Tamil Nadu	31	8	0	0	102	21	583	42	552	168	1,680
Telangana	9	3	7	6	50	10	187	20	59	37	814
Tripura	8	2	3	3	18	4	102	8	68	31	321
Uttar Pradesh	75	10	47	20	118	27	1,834	54	397	178	2,160
Uttarakhand	13	4	16	8	43	10	913	20	133	69	814
Total	**607**	**168**	**316**	**227**	**1,825**	**380**	**15,570**	**773**	**7,253**	**2,322**	**28,586**

[3] Goa was exempted from Beneficiary survey so no further selection after District was made.

Annexe-1.3
Name of Selected Districts
(Refer to para 1.5.4)

Sl. No.	Name of State	Selected Districts	Name of Selected Districts
1.	Andhra Pradesh	5	Anantpuram, Chittoor, Kadapa, Guntur, West Godavari
2.	Arunachal Pradesh	4	Papum Pare, lower Subansiri, West Siang, West Kameng
3.	Assam	9	Golaghat, Dhubri, Nagaon, Cachar, Kamrup Rural, Karbi Anglong, Udalgiri, Hailakandi, Jorhat
4.	Bihar	10	Nawada, Samastipur, Banka, Kaimur (Bhabhua), Muzaffarpur, Nalanda, Patna, Saharsa, Saran, Sitamarhi
5.	Chhattisgarh	8	Raipur, Kawardha, Bastar, Kanker, Rajnadgaon, Surajpur, Jashpur, Baloda Bazar-Bhatapara
6.	Goa	2	North Goa, South Goa
7.	Gujarat	10	Banaskantha, Bhavnagar, Junagadh, Mehsana, Narmada, Navsari, Panchmahal, Surat, Surendranagar, Vadodara
8.	Himachal Pradesh	6	Kangra, Solan, Bilaspur, Shimla, Kinnaur, Lahaul & Spiti
9.	Jammu & Kashmir	7	Jammu, Reasi, Rajouri, Kupwara, Pulwama, Kargil, Leh
10.	Jharkhand	6	Dhanbad, Garhwa, Hazaribag, Palamu, Sahibganj, West Singhbhum
11.	Karnataka	10	Belagavi, Bidar, Chamarajanagar, Chitradurga, Gadag, Mandya, Tumakuru, Yadgir, Bagalkot, Koppal
12.	Kerala	4	Thiruvananthapuram, Kottaym, Kannur, Malappuram
13.	Madhya Pradesh	10	Gwalior, Singrouli, Narsinghpur, Chhindwara, Dhar, Khargone, Vidisha, Tikamgarh, Raisen, Ujjain
14.	Maharashtra	10	Pune, Sangli, Ahmednagar, Nashik, Nagpur, Aurangabad, Beed, Raigad, Thane, Buldana
15.	Manipur	4	Bishnupur, Churachandpur, Senapatai, Thoubal
16.	Meghalaya	4	Jaintia Hills[4] , Ri Bhoi, West Garo Hills, South West Garo Hills
17.	Mizoram	2	Aizawl, Champhai
18.	Nagaland	3	Kohima, Dimapur, Tuensang
19.	Odisha	8	Ganjam, Nabarangpur, Nuapada, Jajpur, Mayurbhanj, Cuttak, Keonjhar, Sambalpur
20.	Punjab	7	Amritsar, SAS Nagar, Bathinda, Hoshiarpur, Fatehgarh Sahib, Moga, Patiala
21.	Rajasthan	10	Barmer, Bhilwara, Jaipur, Jaisalmer, Jhalawad, Kota, Jodhapur, Sriganganagar, Dungarpur, Tonk
22.	Sikkim	2	East Sikkim, South Sikkim
23.	Tamil Nadu	8	Coimbatore, Cuddalore, Dindigul, Karur, Nagapattinam, Pudukkottai, Vellore, Virudhunagar
24.	Telangana	3	Khammam, Mahbubnagar, Nalgonda
25.	Tripura	2	Dhalai, West Tripura
26.	Uttar Pradesh	10	Agra, Jhansi, Aligarh, Chitrakoot, Etawa, G B Nagar, Gorakhpur, Jaunpur, Rae Bareily, Sonbhadhra
27.	Uttarakhand	4	Almora, Nainital, Pauri, Tehri
Total		**168**	

[4] District Jaintia Hills was bifurcated in two districts (East Jaintia Hills and West Jaintia Hills) on July 2012. Both these two district were taken as one district for the purpose of sampling due to non-availability of separate data of fund of these two districts with the department.

Annexe-1.4

Details of deficiencies, corresponding recommendation of PAC and status as per current audit

(Refer to para 1.5.5)

Sl. No.	Main Recommendations of the Public Accounts Committee	Response of the Ministry	Status as per current audit report
1.	The Ministry should issue instructions to the States to prepare and submit the Annual Action Plan (AAP) habitation-wise and such instructions should not be merely on paper but bring tangible results. **(Recommendation No. 7)**	AAPs are prepared at the district level and district level AAPs are combined at the State level to give State level AAP. AAPs prepared by the States every year are discussed with the Ministry. Habitations targeted under the AAPs are marked on the IMIS.	In 10 states, AAPs were prepared at state level without district level AAPs being prepared. **(Para 2.2.3.2)**
2.	The Committee, expressing concern over the delay in receiving proposals from the States, recommended that the Ministry should devise a strong Monitoring Mechanism in consultation with the Chief Secretaries of the States so that proposals are invariably received in time. **(Recommendation No. 8)**	Letters have been addressed to states to send proposals in time.	Instances of delayed submission of proposals were observed. (**Para 2.2.3.2** and **Para 3.2.2**)
3.	The Ministry should evolve a mechanism within a time-frame whereby precise data with regard to the 'slip-back' habitations could be obtained. States should be impressed upon to ensure that habitation does not slip-back further and a quarterly report of the progress in this regard should be sent to the Ministry. Further, expressing serious concern towards a number of schemes lying as non-functional, the Committee desired the Ministry to look into this vital area and take necessary corrective steps for completion of all the schemes in time in every State. The Ministry may also consider withholding of financial assistance to the defaulter States. **(Recommendation No. 9)**	The Ministry had referred various reasons (*viz.* over extraction of ground water, irregular/deficient rainfall, contamination of water due to unchecked disposal of industrial/ municipal effluents and extensive use of pesticides) due to which slip-back could not be eliminated. It can be certainly minimized/reduced by taking the corrective and preventive measures (such as sustainability of sources, construction of sustainability structures) for which states have been advised in various meetings/through letters. In respect of non-functional schemes, states had been asked to take all corrective/preventive actions to avoid the schemes to become non-functional.	Instances of slip-back habitations and non-functional schemes noticed. (**Para 4.5.4** and **Para 4.6**)
4.	All States should assess the technical staff requirements and the Ministry should impress upon the States to fulfil the vacancies so that the Scheme could be implemented in an effective manner and quality water is available to the users. The Ministry should also periodically monitor the augmentation	During various meetings, the State Government officials have been requested to recruit/hire trained manpower urgently in the laboratories so that water quality testing is done regularly.	Shortage of labs, infrastructure and equipment for water quality testing were observed in several States. **(Para 4.8.1)**

Sl. No.	Main Recommendations of the Public Accounts Committee	Response of the Ministry	Status as per current audit report
	of water testing in States through field visits or otherwise and ensure that these laboratories are functional at all times. **(Recommendation No. 10)**		
5.	The Ministry should pay more emphasis on water testing aspect and should increase the frequency of monitoring the quality of water. The Ministry should instruct the States to test all drinking water sources at least twice a year and for chemical contamination at least four times in a year *i.e.* every quarterly. The information so obtained should be put on the public domain. **(Recommendation No. 11)**	The Ministry will continue to focus on drinking water quality monitoring and coverage of water quality affected habitations during XII Five Year Plan and thereafter.	In all selected States, shortfall in carrying out prescribed tests were noticed. In addition, shortfall with respect to performance of envisaged tests against parameters were also noticed. (**Para 4.8.2**)
6.	A future targets for procurement and distribution of Field Test Kits (FTKs) should also be fixed. Further, workers at the grass root level at GPs should be adequately trained to achieve the sole objective of providing safe potable water in each rural habitat. **(Recommendation No. 12)**	In the Annual Action Plans (AAP), targets are fixed for supply of field test kits and number of persons to be imparted training and refresher training on use of these kits.	Instances of non-procurement of required FTKs, non-utilisation of FTKs and expiry of shelf-life of FTKs were noticed. (**Para 4.8.2**)
7.	Being a funding agency it was incumbent upon the Ministry of Drinking Water and Sanitation to monitor completion of projects without any time overrun. **(Recommendation No. 15)**	Ministry is using the IMIS to closely monitor the schemes being implemented by the States. During the AAP discussions, completion of incomplete schemes is given priority. States are urged to ensure completion of incomplete schemes before taking up new schemes.	Several cases of incomplete schemes, schemes that remained non-operational after completion and abandoned works were noticed. (**Para 4.2.6, 4.2.7 and 4.2.9**)

Annexe-2.1
Shortcomings in preparation of Annual Action Plan
(Refer to para 2.2.3.2)

Sl. No.	Name of State	Shortcomings
1.	Andhra Pradesh	• Annual Action Plans (AAP) were prepared without local participation. Further, the plan was not discussed in the SLSSC meetings for approval. • Preference to minority concentrated habitations and other backward communities, sustainability structures, coverage of schools and *anganwadis* with water supply were not included in the AAPs.
2.	Arunachal Pradesh	• AAP was prepared with base as 40 lpcd upto 2012-13. The department has not planned for any augmentation/improvement for coverage of water deficient habitations (habitations with 40 lpcd water supply) despite the existing water supply schemes were being below the prescribed norms of 55 lpcd. • Priority was not given to habitations with lower availability of drinking water.
3.	Assam	• AAPs were prepared without having any input from the village/GP. • AAPs were submitted to the Ministry with a delay of four months during 2012-17.
4.	Bihar	• AAPs were submitted to the Ministry with a delay ranging between 24 days and 78 days during 2014-17. • Water Quality Affected Habitations and low coverage habitations were not given priority.
5.	Chhattisgarh	• 217 Piped Water Supply Schemes (PWSS) sanctioned with cost of ₹ 93.01 crore in 2014-17 were designed for 40 lpcd service levels. • AAPs were submitted to the Ministry with a delay ranging between three and eight months during 2012-17.
6.	Goa	• AAPs were not approved by the SLSSC due to non-conduct of SLSSC meetings. • No planning for provision of drinking water in the schools and *anganwadis* was noticed in the AAPs even though 52 *anganwadis* and five out of 1568 schools did not have access to adequate drinking water.
7.	Himachal Pradesh	• AAP was submitted to the Ministry with a delay ranging between two and five months. • Proposals of elected public representatives were not obtained for inclusion in AAP.
8.	Jharkhand	• AAPs were prepared with minimum service level of 40 lpcd during 2012-17. • AAP did not prioritise habitations with partially covered population (0-25 *per cent* population) and quality affected habitations over habitations with fully covered population (100 *per cent* population).
9.	Karnataka	• AAPs were approved with a delay ranging between five and ten months during 2012-17. • Basic information on which AAPs were prepared was not documented. • Plans for coverage of schools and *anganwadis* with water supply schemes were not included in AAP.
10.	Kerala	• The state AAP was prepared on the basis of details received from the divisions without having grass root level planning.

Sl. No.	Name of State	Shortcomings
11.	Madhya Pradesh	• The plan did not contain the required aspect i.e., target, coverage of habitation, schemes, water quality monitoring, etc.
12.	Maharashtra	• AAPs were submitted to the Ministry with a delay ranging between three and six months during 2012-17. • None of the schemes taken up during 2012-17 were designed for water supply at 55 lpcd.
13.	Manipur	• AAP was prepared based on 40 lpcd during 2012-16. • Priority was not given to 0-25 *per cent* and 25-50 *per cent* population coverage habitations.
14.	Meghalaya	• AAPs were prepared without having any inputs from the districts and villages as well as any suggestions/proposals from the elected public representatives. • All the schemes were designed to provide 40 lpcd till 2016-17
15.	Mizoram	• AAPs were prepared on the basis of data available at the department regarding the coverage of water supply in the habitations without receiving any inputs from the village/district levels. • AAP was prepared with base as 40 lpcd till 2015-16.
16.	Nagaland	• AAPs were prepared with base as 40 lpcd of drinking water supply during 2012-17 instead of 55 lpcd. • Provision for water supply to the *anganwadis* was not included in the AAP.
17.	Rajasthan	• AAPs were prepared without having community participation as well as suggestions/proposals of elected public representatives. • Schemes/projects were prepared on the basis of 40 lpcd instead of 55 lpcd.
18.	Sikkim	• Target was not fixed for coverage in AAP regarding priority to be given for coverage of 0 per cent, 0-25 *per cent* and 25-50 *per cent* population covered in planning. • The department targeted 40 lpcd in AAPs. • AAPs were submitted to the Ministry with delay up to two months.
19.	Tamil Nadu	• AAPs were prepared by taking service level of 40 lpcd and less.
20.	Telangana	• There was no indication of prioritising habitations with 0 - 25 *per cent* of population covered, quality affected habitations, SC, ST and minority community dominated habitation.
21.	Tripura	• There was no evidence of bottom-up approach i.e., involvement of PRIs in the preparation of AAP.
22.	Uttar Pradesh	• In selected districts, AAPs were not prepared in bottom up approach. • AAPs were not submitted for approval of SLSSC during 2015-17.
23.	Uttarakhand	• AAP was prepared with base as 40 lpcd.

Annexe-2.2
SLSSC Meetings held during 2012-17
(Refer to para 2.4.2)

Sl. No.	Name of State	No. of Meetings required to be held during 2012-17	No. of meeting held during						Percentage shortfall during 2012-17
			2012-13	2013-14	2014-15	2015-16	2016-17	Total	
1.	Andhra Pradesh	10	2	2	1	1	1	07	30
2.	Arunachal Pradesh	10	2	1	1	1	0	05	50
3.	Assam	10	2	2	2	1	0	07	30
4.	Chhattisgarh	10	1	1	2	1	1	06	40
5.	Gujarat	10	2	1	1	0	1	05	50
6.	Jammu & Kashmir	10	0	2	1	1	2	06	40
7.	Kerala	10	2	1	1	1	0	05	50
8.	Madhya Pradesh	10	1	2	1	1	2	07	30
9.	Maharashtra	10	1	1	1	1	1	05	50
10.	Manipur	10	1	1	1	1	1	05	50
11.	Meghalaya	10	1	0	1	0	2	04	60
12.	Mizoram	10	1	1	1	1	1	05	50
13.	Nagaland	10	1	1	1	1	0	04	60
14.	Odisha	10	1	2	2	1	1	07	30
15.	Punjab	10	0	1	1	0	0	02	80
16.	Sikkim	10	0	2	0	0	0	02	80
17.	Tamil Nadu	10	2	2	1	1	1	07	30
18.	Telangana	06	-	-	1	1	1	05	50
19.	Tripura	10	1	1	1	1	1	05	50
20.	Uttarakhand	10	1	2	2	1	1	07	30
	Total	**196**	**22**	**26**	**23**	**16**	**17**	**106**	**46**

Annexe-2.3
Shortcomings in functioning of WSSO
(Refer to para 2.4.5)

Sl. No.	Name of State	Shortcomings
1.	Arunachal Pradesh	• Consultants for Monitoring and Evaluation (M&E) and Hydro-geologist had not been appointed since its inception. • WSSO did not carry out evaluation and impact assessment study and Research and Development (R&D) activities during 2012-17.
2.	Assam	• WSSO did not prepare plan for capacity building. State specific information, education and communication strategy for reform initiatives in water was not developed. • Evaluation and impact assessment study was not carried out.
3.	Bihar	• Staffs viz. Director, Consultants (Hydro geologist), Accountant and Data Entry Operator were not appointed in WSSO. • WSSO did not carry out Research and Development (R&D) activities.
4.	Chhattisgarh	• Function of Evaluation and Impact assessment studies, software aspects of RWS sector, assistance to GPs in preparation of Water Security Plan was not done.
5.	Goa	• WSSO did not undertake any evaluation studies and impact assessment studies as well as activity relating to R&D.
6.	Himachal Pradesh	• The organisation faced shortage of staff during the period of performance audit.
7.	Karnataka	• The organisation did not involve in the preparation of water security plans and did not take up evaluation studies, impact assessment, development of IEC and HRD modules, research and development, Geographical Information System (GIS) mapping, etc.
8.	Manipur	• The Organisation did not take up evaluation studies and impact assessment of the programme.
9.	Meghalaya	• Consultant (HRD), Consultant (IEC), Consultant (M&E), Consultant (Hydrogeologist), Consultant (WQM&S) and Consultant (Sanitation and Hygiene) were not appointed.
10.	Nagaland	• The organisation neither carried out the responsibility of preparation of water security plan in the state nor conducted evaluation studies, impact assessment and R&D activities.

Sl. No.	Name of State	Shortcomings
11.	Rajasthan	• The organisation couldn't achieve the autonomy as the organisation was functioning under the CE (Rural). Members from reputed CSOs [1], academic institutions, representative of GPWSC/VWSC were not nominated in WSSO. • Meeting of General Body of WSSO was not held during 2012-17 against the norms of at least two meetings in a year. • Director for WSSO was not appointed since October 2016 but additional charge was given to the Superintending Engineers (SE) working in the PHED.
12.	Telangana	• WSSO's involvement in preparation of water security plan including state specific information on education and communication strategy for reform initiatives in water and sanitation and new technologies and research on various aspects of sanitation, IEC strategies, etc., was not forthcoming from the records.
13.	Uttar Pradesh	• Members from Civil Society Organisation, academic Institutions, and technical institutes working in the sector, representatives of GPWSC/ VWSCs etc., were not included in the organization.

[1]Civil Society Orgnisations

Annexe-2.4
Shortcomings in functioning of DWSM
(Refer to para 2.4.6)

Sl. No.	Name of State	Shortcomings
1.	Andhra Pradesh	• In all test checked districts, meetings were not conducted during 2012-17.
2.	Arunachal Pradesh	• Instead of DWSM, DWSC headed by Deputy Commissioners of respective districts was constituted which didn't have PRIs and community representation in formulation, implementation and monitoring of water supply schemes.
3.	Assam	• DWSM remained non-functional during 2012-17. All the functions of DWSM were performed division-wise by the respective Executive Engineers.
4.	Chhattisgarh	• In all selected districts, Collector chaired the DWSM. The MPs, MLAs, Chairperson of Standing Committees of ZP, District Officers of Social Welfare, WRD and Agriculture were not members of the Mission/Committee in two districts[2]. Remaining five districts did not produce records relating to DWSM.
5.	Goa	• Meetings were not held during 2012-17. • DWSMs were chaired by District Collector. The Mission did not have representation of the MPs / MLAs as well as NGOs.
6.	Gujarat	• Instead of DWSM, District Water and Sanitation Committees (DWSCs) headed by District Collators of respective districts were constituted. However, elected public representatives were not associated in the committee.
7.	Himachal Pradesh	• The Mission did not have sufficient staff during 2012-17 as against the requirement of six consultants for each DWSM, one consultant was appointed. • Follow up action on the decision taken in the meetings was not taken up in the subsequent meetings.
8.	Jammu & Kashmir	• DWSMs were defunct due to non-existence of PRI structure.
9.	Jharkhand	• Against the required 40 meetings, four meetings were held in two districts during 2012-17. Meetings were not held in rest of four selected districts[3]. • NGO was not co-opted as member by DWSM.
10.	Karnataka	• Meetings were not held in four[4] selected districts during 2012-17. In other four districts the number of meetings held ranged from one to four. • None of the selected districts except Chitradurga and Tumakuru, co-opted the NGOs as members of DWSM. DWSMs wherever constituted were also

[2] Raipur and Surajpur
[3] Garhwa, Hazaribag, Palamu, and Sahibganj.
[4] Bagalkot,Chitradurga, Koppal and Mandya

Sl. No.	Name of State	Shortcomings
		not involved in formulation and approval of the activities under the programme. • In district Chitradurga, the CEO of ZP was made the President of DWSM instead of the Chairman of ZP.
11.	Maharashtra	• In five[5] districts, DWSM was not headed by Chairman of Zilla Parishad. • In none of the selected districts Members of Parliament, Members of Legislative Assembly/Council were included in the DWSM. • In none of the districts, members of NGOs were co-opted as members of DWSM.
12.	Manipur	• There was no record of meetings of the Mission during the period of performance audit. • It has no technical and professional persons(Consultant HRD, IEC, M&E and Hydrogeologist).
13.	Meghalaya	• Role of DWSM was limited to Swachh Bharat Mission (SBM).
14.	Mizoram	• Instead of DWSM, DWSCs were formed in selected districts and their role was confined to Swachh Bharat Mission (SBM).
15.	Odisha	• In seven out of eight selected districts, meetings were not held during 2012-17. • Against requirement of eight staff members, DWSMs were functioning with two to seven staff members in six out of eight selected districts. In five[6] out of eight selected districts, technical and professional personnel were not engaged.
16.	Punjab	• Meetings were not held during 2012-17.
17.	Telangana	• Records were not available regarding meetings held by DWSMs in any of the selected districts.
18.	Tripura	• In district West, only one meeting was held during 2012-17.
19.	Uttar Pradesh	• DWSMs had three consultants against the prescribed six consultants of different specialised areas. • The General body of the Mission met only six times during 2012-17.

[5]Ahmednagar, Nagpur, Sangli, Thane and Nashik
[6]Cuttack, Ganjam, Jajpur, Mayurbhanj, Nabarangpur

Annexe-2.5
Shortcomings in functioning of VWSC
(Refer to para 2.4.8)

Sl. No.	Name of State	Shortcomings
1.	Arunachal Pradesh	• Though the VWSCs were formed in all selected GPs, the schemes/projects were being formulated at District Water and Sanitation Committee (DWSC) level without involving VWSC. This indicated that participation of GPs/ village communities in planning and management of rural water supply was not ensured.
2.	Assam	• VWSCs were only involved in sanitation activities.
3.	Chhattisgarh	• 12[7] out of 32 selected GPs, did not have records pertaining to constitution of VWSC.
4.	Jammu & Kashmir	• Though VWSCs were constituted in December 2013 they were not functional due to dissolution of PRIs.
5.	Jharkhand	• VWSCs were not involved in planning, designing, approval and implementation of schemes in selected districts.
6.	Karnataka	• VWSCs were not involved in the process of formulation of activities under the programme.
7.	Madhya Pradesh	• In 36 out of 44 GPs, VWSCs did not ensure community participation and decision making in all phases of village activities.
8.	Maharashtra	• In three GPs (Beed: one GP; Nashik: 2 GPs), the VWSCs were not formed on the ground that they were not aware about the formation of VWSC.
9.	Mizoram	• VWSCs were mainly engaged with the operation and maintenance of the schemes but were not involved in the planning, designing and implementation process of the schemes.
10.	Telangana	• In districts Khammam and Mahbubnagar, representation of persons from SCs, STs and poorer sections of the village was not ensured in any of selected GPs.
11.	Tripura	• Though the Committee was constituted by the state government, joint physical verification in eight GPs showed their non-existence.
12.	Uttar Pradesh	• VWSCs members were not involved in planning of water supply schemes.

[7] Datrenga, Boriakala, Paragaon, Khiloura, Manikchouri, Piplawand, Bhanpuri, Borigaon, Koliyapuri, Luikona, Charaidand and Malda.

Annexe-3.1
Non-release of State share of funds (2015-17)
(Refer to para 3.2.3)

Component	Central-State fund share	2015-16	2016-17
		States which had not released their share	**States which had not released their share**
Desert Development Programme	60:40 (90:10)	Andhra Pradesh, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka and Rajasthan	Gujarat, Haryana, Himachal Pradesh and Jammu & Kashmir
Natural Calamity	60:40 (90:10)	Assam, Gujarat, Himachal Pradesh and Tamil Nadu	Arunachal Pradesh, Manipur and West Bengal
Earmarked Water Quality	50:50 (90:10)	Assam, Bihar, Jharkhand, Punjab and Rajasthan	Karnataka, Maharashtra
Support Activities	60:40 (90:10)	Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland Odisha, Punjab, Rajasthan, Sikkim, Tamil Nadu and Telangana	Arunachal Pradesh, Bihar, Goa, Jammu & Kashmir, Kerala, Maharashtra, Manipur, Odisha, Punjab and Sikkim
Water Quality Monitoring and Surveillance	60:40 (90:10)	Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Goa, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland Odisha, Punjab, Rajasthan, Sikkim, Tamil Nadu, Telangana, Tripura, Uttar Pradesh and Uttarakhand	Arunachal Pradesh, Assam, Bihar, Goa, Jammu & Kashmir, Kerala, Maharashtra, Manipur, Odisha, Punjab, Sikkim and Uttarakhand

Source: *IMIS data of the Ministry*
Note: *Figures in brackets indicate Central-State fund sharing pattern in respect of North-Eastern and Himalayan States.*

Annexe-3.2

State-wise position of releases, utilisation and outstanding balance of Central and State Share (2012-17)

(Refer to para 3.2.4)

(₹ in crore)

Sl. No.	Name of State	Central Share						State Share			Total (Central + State)			
		Opening balance	Central Release	Misc. receipt (Intt. etc.)	Total	Expenditure	Closing balance	Release	Expenditure	Remaining balance (Grants – Expendi-ture)	Available Fund	Expenditure	Closing Balance	Percen-tage of un-utilised fund
	1	2	3	4	5	6	7	8	9	10	11 (5+8)	12 (6+9)	13 (7+10)	14
1.	Andhra Pradesh	301.30	1,868.49	0.00	2,169.79	2,110.28	59.51	2,763.29	2,671.07	92.22	4,933.08	4,781.35	151.73	3
2.	Arunachal Pradesh	9.46	746.61	7.38	763.45	751.06	12.40	67.51	67.46	0.05	830.96	818.52	12.45	1
3.	Assam	127.51	2,401.67	19.29	2,548.47	2,238.89	309.59	773.51	703.56	69.95	3,321.98	2,942.45	379.54	11
4.	Bihar	285.65	1,548.89	1.52	1,836.06	1,751.09	84.97	1,631.78	1,314.83	316.95	3,467.84	3,065.92	401.92	12
5.	Chhattisgarh	80.82	579.69	4.96	665.47	638.61	26.86	642.34	607.49	34.85	1,307.81	1,246.10	61.71	5
6.	Goa	5.91	2.88	0.00	8.79	5.57	3.23	12.27	12.27	0.00	21.06	17.84	3.23	15
7.	Gujarat	327.59	2,155.53	0.00	2,483.12	2,457.26	25.84	3,406.55	2,652.94	753.61	5,889.67	5,110.20	779.45	13
8.	Haryana	43.98	1,055.09	3.91	1,102.98	1,072.67	30.30	2,229.80	1,919.06	310.74	3,332.78	2,991.73	341.04	10
9.	Himachal Pradesh	61.94	529.29	-27.66	563.57	533.49	30.09	581.76	264.83	316.93	1,145.33	798.32	347.02	30
10.	Jammu & Kashmir	147.04	1,780.99	17.86	1,945.89	1,888.01	57.87	266.88	259.92	6.96	2,212.77	2,147.93	64.83	3
11.	Jharkhand	74.31	935.72	51.90	1,061.93	981.30	80.62	1,458.90	1,185.41	273.49	2,520.83	2,166.71	354.11	14
12.	Karnataka	213.14	2,952.24	61.69	3,227.07	3,133.97	93.10	7,265.07	6,335.52	929.55	10,492.14	9,469.49	1,022.65	10
13.	Kerala	16.08	708.45	22.43	746.96	729.24	17.72	1,411.13	1,300.19	110.94	2,158.09	2,029.43	128.66	6
14.	Madhya Pradesh	32.54	1,880.68	30.59	1,943.81	1,907.82	35.92	1,984.46	1,779.93	204.53	3,928.27	3,687.75	240.45	6
15.	Maharashtra	320.10	3,020.31	0.76	3,341.17	3,168.35	172.82	3,102.15	2,711.80	390.35	6,443.32	5,880.15	563.17	9
16.	Manipur	17.72	278.58	0.00	296.30	267.27	29.61	147.52	132.45	15.07	443.82	399.72	44.68	10

Sl. No.	Name of State	Central Share						State Share			Total (Central + State)			
		Opening balance	Central Release	Misc. receipt (Intt. etc.)	Total	Expenditure	Closing balance	Release	Expenditure	Remaining balance (Grants – Expendi-ture)	Available Fund	Expenditure	Closing Balance	Percen-tage of un-utilised fund
17.	Meghalaya	36.83	342.17	1.88	380.88	377.48	3.39	513.57	445.87	67.70	894.45	823.35	71.09	8
18.	Mizoram	6.80	169.12	0.55	176.47	177.19	0.14	42.59	34.78	7.81	219.06	211.97	7.95	4
19.	Nagaland	1.10	348.08	1.21	350.39	349.49	0.89	28.42	28.54	-0.12	378.81	378.03	0.77	0
20.	Odisha	84.34	996.47	48.76	1,129.57	1,076.14	53.47	1,079.93	992.93	87.00	2,209.50	2,069.07	140.47	6
21.	Punjab	30	484.28	0.00	487.28	460.63	26.64	974.57	743.32	231.25	1,461.85	1,203.95	257.89	18
22.	Rajasthan	397.00	5,648.16	96.79	6,141.95	5,527.04	555.31	3,700.81	2,553.76	1,147.05	9,842.76	8,080.80	1,702.36	17
23.	Sikkim	49.88	122.09	4.82	176.79	169.53	4.75	9.11	9.10	0.01	185.90	178.63	4.76	3
24.	Tamil Nadu	240.27	1,696.77	16.11	1,953.15	1,938.79	14.35	2,590.35	2,345.94	244.41	4,543.50	4,284.73	258.76	6
25.	Telangana	0.00	443.04	0.24	443.28	407.56	35.71	1,213.52	1,185.92	27.60	1,656.80	1,593.48	63.31	4
26.	Tripura	4.03	334.24	5.32	343.59	337.06	6.54	95.66	96.42	-0.76	439.25	433.48	5.78	1
27.	Uttar Pradesh	159.90	3,970.46	62.91	4,193.27	3,935.45	257.82	4,222.09	3,508.22	713.87	8,415.36	7,443.67	971.69	12
28.	Uttarakhand	239.27	421.62	16.16	677.05	624.37	52.66	386.45	452.07	-65.62	1,063.50	1,076.44	-12.96	-1
29.	West Bengal	417.10	2,076.28	35.28	2,528.66	2,507.87	20.78	3,659.76	3,326.20	333.56	6,188.42	5,834.07	354.34	6
30.	Andaman & Nicobar Island	0.00	2.06	0.05	2.11	1.07	1.05	3.40	2.30	1.10	5.51	3.37	2.15	39
31.	Puducherry	0.00	1.23	0.08	1.31	0.00	1.27	0.00	0.00	0.00	1.31	0	1.27	97
	Total	**3,704.61**	**39,501.18**	**484.79**	**43,690.58**	**41,524.55**	**2,105.22**	**46,265.15**	**39,644.10**	**6,621.05**	**89,955.73**	**81,168.65**	**8,726.27**	**10**

Annexe-3.3

(State-wise financial position under Coverage/WQ/Sustainability/O&M)

(Refer to para 3.2.6)

(₹ in crore)

Sl. No.	Name of state	Available Fund (2012 – 2017)			Expenditure (2012-2017)							Percentage Utilization of available funds
		Central (Opening + Release + Intt.)	State Release	Total	Central					State	Total	
					Coverage	Water quality	Sustaina-bility	Operation & maintenance	Total			
1	2	3	4	5 (3+4)	6	7	8	9	10 (6 to 9)	11	12 (10+11)	13
1.	Andhra Pradesh	1,858.88	2,762.38	4,621.26	1,485.30	151.90	16.56	186.18	1,839.94	2,662.73	4,502.67	97.43
2.	Arunachal Pradesh	642.48	67.51	709.99	497.82	13.41	24.22	95.04	630.49	67.46	697.95	98.30
3.	Assam	2,127.49	773.51	2901	804.42	651.03	188.6	277.79	1,921.84	696.97	2,618.81	90.27
4.	Bihar	1,493.66	1,574.87	3,068.53	903.51	392.10	49.76	68.73	1,414.10	1,215.99	2,630.09	85.71
5.	Chhattisgarh	638.27	642.34	1,280.61	436.55	34.79	71.86	69.02	612.22	604.59	1,216.81	95.02
6.	Goa	7.03	12.27	19.30	5.57	0.00	0.00	0.00	5.57	12.27	17.84	92.44
7.	Gujarat	1,682.50	3,406.55	5,089.05	1,254.72	100.56	88.98	225.66	1,669.92	2,642.02	4,311.94	84.73
8.	Haryana	572.06	2,229.80	2,801.86	471.99	1.84	44.82	45.14	563.79	1,917.20	2,480.99	88.55
9.	Himachal Pradesh	509.05	581.76	1,090.81	297.38	44.05	49.55	65.74	456.72	264.52	721.24	66.12
10.	Jammu & Kashmir	1,761.61	266.88	2,028.49	1,371.64	36.18	103.99	225.74	1,737.55	259.92	1,997.47	98.47
11.	Jharkhand	911.37	1,458.90	2,370.27	589.93	86.28	78.51	91.84	846.56	1,157.90	2,004.46	84.57
12.	Karnataka	2,199.29	7,265.07	9,464.36	1,320.03	330.45	215.06	288.31	2,153.85	6,328.15	8,482.00	89.62
13.	Kerala	685.85	1,408.74	2,094.59	539.56	32.63	23.54	102.52	698.25	1,297.78	1,996.03	95.29
14.	Madhya Pradesh	1,815.34	1,956.22	3,771.56	1,269.68	80.87	150.20	292.98	1,793.73	1,742.86	3,536.59	93.77
15.	Maharashtra	3,018.01	3,102.15	6,120.16	2,054.41	342.13	218.28	277.70	2,892.52	2,711.80	5,604.32	91.57

Sl. No.	Name of state	Available Fund (2012 – 2017)			Expenditure (2012-2017)							Percentage Utilization of available funds
		Central (Opening + Release + Intt.)	State Release	Total	Central					State	Total	
					Coverage	Water quality	Sustaina-bility	Operation & maintenance	Total			
16.	Manipur	284.24	147.52	431.76	186.58	2.89	22.44	44.78	256.69	132.45	389.14	90.13
17.	Meghalaya	351.86	513.57	865.43	257.50	5.12	38.13	49.35	350.10	445.67	795.77	91.95
18.	Mizoram	165.23	42.59	207.82	123.93	0.00	19.10	22.81	165.84	34.62	200.46	96.46
19.	Nagaland	320.25	28.42	348.67	197.49	49.21	23.99	48.69	319.38	28.42	347.80	99.75
20.	Odisha	1,040.66	1,079.93	2,120.59	694.90	84.24	122.00	105.67	1,006.81	992.93	1,999.74	94.30
21.	Punjab	456.18	974.57	1,430.75	305.73	21.49	42.67	61.17	431.06	743.32	1,174.38	82.08
22.	Rajasthan	3,222.90	3,463.34	6,686.24	2,115.07	405.85	285.19	402.45	3,208.56	2,367.10	5,575.66	83.39
23.	Sikkim	128.00	9.11	137.11	107.33	1.49	9.99	5.04	123.85	9.10	132.95	96.97
24.	Tamil Nadu	1,750.89	2,581.42	4,332.31	1,289.21	40.19	161.29	259.65	1,750.34	2,332.98	4,083.32	94.25
25.	Telangana	393.96	1,208.26	1,602.22	320.50	28.12	5.28	15.59	369.49	1,173.73	1,543.22	96.32
26.	Tripura	321.64	95.58	417.22	221.81	43.64	3.46	46.90	315.81	96.14	411.95	98.74
27.	Uttar Pradesh	3,393.01	3,694.66	7,087.67	2,084.87	328.01	249.59	534.07	3,196.54	3,144.98	6,341.52	89.47
28.	Uttarakhand	576.82	386.45	963.27	409.31	10.99	37.57	88.31	546.18	451.97	998.15	103.62
29.	West Bengal	1,771.27	3,352.18	5,123.45	1,224.68	212.48	55.06	274.06	1,766.28	3,018.54	4,784.82	93.39
30.	Andaman & Nicobar Island	1.84	3.40	5.24	0.24	0.53	0.11	0.00	0.88	2.16	3.04	58.02
31.	Puducherry	1.16	0.00	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**34,102.80**	**45,089.95**	**79,192.75**	**22,841.66**	**3,532.47**	**2,399.8**	**4,270.93**	**33,044.86**	**38,556.27**	**71,601.13**	**90.41**

Annexe-3.4
(State-wise Financial Position under Support Fund)
(Refer to para 3.2.6)

(₹ in crore)

Sl. No.	Name of state	Available Fund (2012 – 2017)			Expenditure (2012-2017			Percentage Utilization of available funds
		Central (Opening + Release + Intt.)	State Release	Total	Central	State	Total	
1.	Andhra Pradesh	60.11	5.08	65.19	58.92	2.34	61.26	93.97
2.	Arunachal Pradesh	33.12	0.00	33.12	32.69	0.00	32.69	98.70
3.	Assam	96.65	0.00	96.65	95.12	0.00	95.12	98.42
4.	Bihar	49.08	0.00	49.08	46.56	0.00	46.56	94.87
5.	Chhattisgarh	17.37	3.30	20.67	17.14	1.71	18.85	91.19
6.	Goa	1.55	0.00	1.55	0.00	0.00	0.00	0.00
7.	Gujarat	95.52	8.21	103.73	90.21	6.71	96.92	93.43
8.	Haryana	17.77	2.39	20.16	16.66	1.32	17.98	89.19
9.	Himachal Pradesh	22.91	0.23	23.14	22.71	0.19	22.90	98.96
10.	Jammu &Kashmir	48.04	0.00	48.04	21.47	0.00	21.47	44.69
11.	Jharkhand	32.45	7.11	39.56	31.66	4.65	36.31	91.78
12.	Karnataka	76.00	14.80	90.80	70.24	7.37	77.61	85.47
13.	Kerala	19.45	0.00	19.45	19.33	0.00	19.33	99.38
14.	Madhya Pradesh	65.01	14.67	79.68	57.22	6.83	64.05	80.38
15.	Maharashtra	165.07	0.00	165.07	149.20	0.00	149.20	90.39
16.	Manipur	8.65	0.00	8.65	8.64	0.00	8.64	99.88
17.	Meghalaya	9.38	0.11	9.49	9.32	0.11	9.43	99.37

Sl. No.	Name of state	Available Fund (2012 – 2017)			Expenditure (2012-2017			Percentage Utilization of available funds
		Central (Opening + Release + Intt.)	State Release	Total	Central	State	Total	
18.	Mizoram	7.17	0.10	7.27	7.32	0.10	7.42	102.06
19.	Nagaland	11.12	0.07	11.19	11.37	0.07	11.44	102.23
20.	Odisha	37.31	0.00	37.31	33.04	0.00	33.04	88.56
21.	Punjab	15.26	0.00	15.26	14.92	0.00	14.92	97.77
22.	Rajasthan	118.39	5.00	123.39	84.38	0.00	84.38	68.38
23.	Sikkim	2.67	0.00	2.67	2.64	0.00	2.64	98.88
24.	Tamil Nadu	75.73	5.82	81.55	73.52	5.57	79.09	96.98
25.	Telangana	22.22	3.25	25.47	17.11	3.23	20.34	79.86
26.	Tripura	14.94	0.36	15.30	14.70	0.14	14.84	96.99
27.	Uttar Pradesh	148.56	58.16	206.72	148.15	22.57	170.72	82.59
28.	Uttarakhand	17.52	0.10	17.62	16.34	0.10	16.44	93.30
29.	West Bengal	88.11	13.12	101.23	88.10	12.62	100.72	99.50
30.	Andaman & Nicobar Island	0.21	0.77	0.98	0.15	0.14	0.29	29.59
31.	Puducherry	0.09	0.00	0.09	0.00	0.00	0.00	0.00
	Total	**1,377.43**	**142.65**	**1,520.08**	**1,258.83**	**75.77**	**1,334.6**	**87.80**

Annexe-3.5

(State-wise financial position under Water Quality Monitoring and Surveillance)

(Refer to para 3.2.6)

(₹ in crore)

Sl. No.	Name of state	Available Fund (2012 – 2017)			Expenditure (2012-2017			Percentage Utilization of available funds
		Central (Opening + Release + Intt.)	State Release	Total	Central	State	Total	
1.	Andhra Pradesh	52.30	5.25	57.55	51.92	5.21	57.13	99.27
2.	Arunachal Pradesh	17.23	0.00	17.23	17.21	0.00	17.21	99.88
3.	Assam	62.73	0.00	62.73	60.99	0.00	60.99	97.23
4.	Bihar	25.94	0.00	25.94	25.01	0.00	25.01	96.41
5.	Chhattisgarh	9.79	1.55	11.34	9.26	1.19	10.45	92.15
6.	Goa	0.22	0.00	0.22	0.00	0.00	0.00	0.00
7.	Gujarat	31.17	4.65	35.82	29.86	4.22	34.08	95.14
8.	Haryana	9.96	1.67	11.63	9.38	0.54	9.92	85.30
9.	Himachal Pradesh	11.18	0.14	11.32	10.55	0.12	10.67	94.26
10.	Jammu &Kashmir	35.30	0.00	35.3	31.63	0.00	31.63	89.60
11.	Jharkhand	18.96	1.33	20.29	17.85	0.90	18.75	92.41
12.	Karnataka	45.47	5.34	50.81	37.20	0.00	37.20	73.21
13.	Kerala	9.26	0.00	9.26	9.26	0.00	9.26	100.00
14.	Madhya Pradesh	37.76	10.84	48.60	34.32	5.25	39.57	81.42
15.	Maharashtra	86.76	0.00	86.76	85.02	0.00	85.02	97.99
16.	Manipur	2.18	0.00	2.18	1.93	0.00	1.93	88.53
17.	Meghalaya	4.62	0.09	4.71	3.06	0.09	3.15	66.88
18.	Mizoram	4.04	0.06	4.10	4.03	0.06	4.09	99.76

Sl. No.	Name of state	Available Fund (2012 – 2017)			Expenditure (2012-2017			Percentage Utilization of available funds
		Central (Opening + Release + Intt.)	State Release	Total	Central	State	Total	
19.	Nagaland	5.06	0.04	5.10	5.06	0.04	5.10	100.00
20.	Odisha	18.55	0.00	18.55	16.97	0.00	16.97	91.48
21.	Punjab	15.51	0.00	15.51	14.38	0.00	14.38	92.71
22.	Rajasthan	32.08	0.95	33.03	25.65	0.34	25.99	78.69
23.	Sikkim	1.73	0.00	1.73	1.63	0.00	1.63	94.22
24.	Tamil Nadu	42.33	2.40	44.73	39.30	2.09	41.39	92.53
25.	Telangana	14.47	3.71	18.18	14.47	3.71	18.18	100.00
26.	Tripura	5.46	0.07	5.53	5.16	0.07	5.23	94.58
27.	Uttar Pradesh	78.29	19.04	97.33	72.05	16.20	88.25	90.67
28.	Uttarakhand	11.25	0.00	11.25	9.16	0.00	9.16	81.42
29.	West Bengal	49.44	7.87	57.31	49.44	7.87	57.31	100.00
30.	Andaman & Nicobar Island	0.09	0.00	0.09	0.05	0.00	0.05	55.56
31.	Puducherry	0.06	0.00	0.06	0.00	0.00	0.00	0.00
32.	**Total**	**739.19**	**65.00**	**804.19**	**691.80**	**47.90**	**739.70**	**91.98**

Annexe-3.6

State-wise Release and Expenditure under earmarked water quality (2012-2017)

(Refer to para 3.4)

(₹ in crore)

Sl. No.	Name of State	Central				State				Total (Central and State)		
		Earmarked Funding (Chemical)		Earmarked Funding (Bacterial)		Earmarked Funding (Chemical)		Earmarked Funding (Bacterial)		Earmarked Funding (Chemical + Bacterial)		
		Release	Expenditure	Release	Expenditure	Release	Expenditure	Release	Expenditure	Release	Expenditure	% of Expr. of Release
1.	Andhra Pradesh	2.13	0.78	0.00	0.00	0.91	0.78	0.00	0.00	3.04	1.56	51.32
2.	Arunachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.	Assam	46.08	40.50	2.56	2.49	0.00	0.00	0.00	0.00	48.64	42.99	88.38
4.	Bihar	80.95	78.46	13.82	13.37	33.00	31.92	4.32	4.18	132.09	127.93	96.85
5.	Chhattisgarh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.	Goa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7.	Gujarat	1.52	1.14	0.00	0.00	0.00	0.00	0.00	0.00	1.52	1.14	75.00
8.	Haryana	0.42	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.42	100.00
9.	Himachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.	Jammu &Kashmir	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11.	Jharkhand	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00
12.	Karnataka	135.93	117.31	0.00	0.00	0.00	0.00	0.00	0.00	135.93	117.31	86.30
13.	Kerala	2.39	2.40	0.00	0.00	2.41	2.41	0.00	0.00	4.80	4.81	100.21
14.	Madhya Pradesh	22.53	22.53	0.00	0.00	28.23	24.99	0.00	0.00	50.76	47.52	93.62
15.	Maharashtra	38.42	23.55	0.00	0.00	0.00	0.00	0.00	0.00	38.42	23.55	61.30
16.	Manipur	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17.	Meghalaya	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18.	Mizoram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19.	Nagaland	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	100.00
20.	Odisha	2.78	0.57	0.00	0.00	0.00	0.00	0.00	0.00	2.78	0.57	20.50
21.	Punjab	0.30	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.25	83.33
22.	Rajasthan	104.78	78.07	0.00	0.00	20.58	6.62	0.00	0.00	125.36	84.69	67.56
23.	Sikkim	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Sl. No.	Name of State	Central				State				Total (Central and State)		
		Earmarked Funding (Chemical)		Earmarked Funding (Bacterial)		Earmarked Funding (Chemical)		Earmarked Funding (Bacterial)		Earmarked Funding (Chemical + Bacterial)		
		Release	Expenditure	Release	Expenditure	Release	Expenditure	Release	Expenditure	Release	Expenditure	% of Expr. of Release
24.	Tamil Nadu	0.24	0.23	6.69	6.06	0.36	0.22	8.57	5.08	15.86	11.59	73.08
25.	Telangana	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26.	Tripura	1.38	1.38	0.00	0.00	0.08	0.08	0.00	0.00	1.46	1.46	100.00
27.	Uttar Pradesh	14.57	14.56	282.41	291.58	0.00	0.00	503.88	279.16	800.86	585.30	73.08
28.	Uttarakhand	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29.	West Bengal	386.30	386.28	5.24	4.97	133.82	122.14	3.76	2.57	529.12	515.96	97.51
30.	Andaman & Nicobar Island	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31.	Puducherry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**840.94**	**768.48**	**310.72**	**318.47**	**219.39**	**189.16**	**520.53**	**290.99**	**1,891.58**	**1,567.10**	**82.85**

Annexe-3.7
Delay in release of fund by state government during 2012-17
(Refer to para 3.6.1)

Sl. No.	Name of State	Delay released	
		Amount (₹ in crore)	Period
1.	Andhra Pradesh	655.27	12 to 249 days
2.	Arunachal Pradesh	73.52	30 to 150 days
3.	Assam	545.87	2 to 59 days
4.	Bihar	6.28	81 days
5.	Jharkhand	1,194.25	1 to 180 days
6.	Karnataka	695.44	1 to 127 days
7.	Kerala	247.37	6 to 98 days
8.	Maharashtra	1,151.01	up to 365 days
9.	Meghalaya	84.86	7 to 92 days
10.	Mizoram	59.56	More than 15 day up to 365 days
11.	Nagaland	176.81	More than 15 day up to 365 days
12.	Odisha	173.67	6 to 35 days
13.	Rajasthan	1,560.17	More than 15 days up to 365 days
14.	Sikkim	61.38	15 and up to 180 days
15.	Tamil Nadu	497.71	7 to 66 days
16.	Telangana	227.21	26 to 104 days
17.	Tripura	62.10	4 to 262 days
18.	Uttar Pradesh	1,766.26	5 to 478 days
19.	Uttarakhand	150.15	8 to 267 days
	Total	**9,388.89**	

Annexe-3.8
Cases of inadmissible expenditure and diversion of funds
(Refer to para 3.6.3)

Sl. No.	Name of State	Fund diverted to	Amount (₹ in crore)
1.	Andhra Pradesh	Purchase of land for augmentation of pipe water scheme to Akumarru and 19 other habitations in district Krishna	2.20
2.	Assam	Renovation/repair of residential buildings, purchase of squatting plates to be used as sanitary latrine during calamities, construction of guest house and other state schemes, incorrect payment of excise duty.	30.13
3.	Bihar	Social awareness through organisation of '*Jalchaupal*' under *Mukhyamantri Gram Swakcha Pey Jal Nischaya Abhiyan*, World Water day celebration, purchase of trolley bag for presentation of budget speech in the legislative assembly, tender premium and diversion of funds due to execution of agreement higher than administrative approval.	28.05
4.	Chhattisgarh	In 792 cases accepted, during 2012-17, rates were higher than the estimated cost and payment towards tender premium.	14.77
5.	Goa	Centage charges paid to Public Works Departments	0.71
6.	Himachal Pradesh	₹ 19.39 crore were diverted to other habitations (six divisions), ₹ 0.26 crore paid as price escalation (one division), ₹ 0.41 crore for land acquisition (two divisions) and excess expenditure over approved cost of ₹ 15.82 crore (seven divisions).	35.88
7.	Jammu and Kashmir	In three division, NRDWP funds were diverted to other state schemes	1.47
8.	Jharkhand	Price escalation	3.55
9.	Karnataka	Payment of rent, hiring of vehicles, outsourcing of employees, telephone charges, etc.	5.64
10.	Kerala	For construction of compound wall, approach road, repair, electricity charges , etc.	4.50
11.	Madhya Pradesh	In five selected districts[1], expenditure was incurred on fuel, typing and photocopy works of the divisions, tender premium	4.67

[1] Chhindwara, Gwalior, Narsinghpur, Raisen and Vidisha

Sl. No.	Name of State	Fund diverted to	Amount (₹ in crore)
12.	Maharashtra	In selected divisions and Zila Paridshad, funds were diverted towards tender premium, centage charges and cost escalation	172.53
13.	Manipur	Centage charges, extension of office building, construction of conference hall, construction of laboratory	7.22
14.	Meghalaya	Purchase of vehicles	0.31
15.	Mizoram	Other scheme (Maintenance of Urban Water Supply Scheme), purchase of stationery , furniture, vehicles, etc.	2.32
16.	Nagaland	Purchase of vehicles	0.15
17.	Odisha	Payment to watch and ward, photocopy expenses, purchase of fuel, etc.	0.44
18.	Punjab	Inadmissible works and items of expenditure (maintenance of office building, purchase of genset, etc.)	2.36
19.	Rajasthan	Payment towards Tender premium, Construction of Staff Quarters	6.13
20	Uttar Pradesh	Payment of salary to permanent staff of *Jal Sansthan* of districts Jhansi, Lalitpur and Orai	34.62
21.	Uttarakhand	Construction of *Swajal Pathshala* and Toilet Museum in Dehradun	0.94
Total			**358.59**

Annexe-4.1
Incomplete Works
(Refer to para 4.2.6)

(₹ in crore)

Sl. No.	Name of State	Brief of work	No. of works	Estimated Cost	Expr. incurred
1.	Andhra Pradesh	• Comprehensive Protected Water Supply (CPWS) scheme to cover 51 habitations in district Anantapur was taken up in November 2012 with scheduled completion date of November 2013. This was completed and handed over to Zila Parishad in March 2017 without constructing the intake well due to denial of permission by Irrigation Department. Department replied that water supply was provided to 39 habitations by November 2016 on temporary basis by drawing water from another project.	1	56 .00	46.77
		• Three CPWS (167 habitations in district Chittoor; augmentation of water supply to some mandals in district Guntur for 12 villages and 130 habitations in Achanta constituency) taken up between September 2010 and November 2015 with scheduled dates of completion between September 2011 and June 2017, remained incomplete due to land dispute and non-release of water from source.	3	51.00	34.60
		• Two CPWS schemes (one for 12 habitations in Tanuku and the other for 14 habitations in Attili (M) of district West Godavari), taken up between April 2011 and May 2014 with scheduled date of completion between April 2012 and June 2015, remained incomplete for want of permission from Railways Authorities.	2	29.00	19.10
		• CPWS scheme to Kamavarapukota (M) of district West Godavari to serve 11 habitations, taken up in March 2014 with schedule date of completion as February 2015, was not commissioned for want of power connection.	1	6.30	5.22
		• J C Nagi Reddy Drinking Water Supply Project planned with Gandikota reservoir remained incomplete as detailed in Paragraph 4.2.6.	1	508.00	365.88
2.	Arunachal Pradesh	• In Yuipa division, a water supply scheme based on deep bore well was reported to have been completed in March 2016. However, during physical verification it was found that only 50 *per cent* of the work had been completed at a cost of ₹ 0.35 crore.	1	0.51	0.35
3.	Assam	• Three works for sustainability and quality affected habitations in Silchar-I and Hojai Divisions, taken up for execution between January 2013 and October 2014 with scheduled date of completion between December 2015 and December 2016, remained incomplete for want of road cutting permission	3	36.28	19.06

Sl. No.	Name of State	Brief of work	No. of works	Estimated Cost	Expr. incurred
		• Nine works for sustainability and quality affected habitations in Silchar-I, Silchar-II and Hojai Divisions, taken up for execution between May 2013 and May 2015 with schedule date of completion between December 2015 and February 2017, remained incomplete for want of material (DI pipes).	9	73.00	38.10
		• 19 works for sustainability and quality affected habitations in Slchar-I, Silchar-II, Bokakhat, Golaghat, Hojai and Nagaon divisions, taken up for execution between February 2011 and March 2015 scheduled to be completed between April 2014 and February 2017, remained incomplete due to paucity of funds.	19	187.92	107.04
		• In Howraghat division, work of Jar-op Langso water supply scheme for quality affected habitation, taken up in 2013 at a cost of ₹ 6.00 crore and scheduled to be completed by February 2014, remained incomplete due to remoteness of area.	1	6.00	1.63
		• In Bakakhat division, work of the Greater Dergaon Rural Water Supply Scheme was administratively approved in February 2014 at a cost of ₹ 10.92 crore. Department stated that work had not been started due to non-availability of land. However, verification of records disclosed that possession of the required land had already been taken in October 2015 by the concerned Sub-Division.	1	10.92	
		• 10 works in Hailkandi and Jorhat divisions, taken up for execution between March 2013 and June 2014 remained incomplete as discussed in paragraph 4.2.6.	10	136.24	70.34
4.	Bihar	• Work for re-organising rural piped water supply scheme was taken up in May 2013 for completion within a year. However, the work was rescinded in July 2017 due to slow progress after incurring expenditure of ₹ 0.41 crore.	1	0.75	0.41
		• In Patna District, work for construction of 8.95 Million Litre per day (MLD) capacity surface water supply scheme for 45 arsenic affected habitations at Maner was taken up in June 2009 but remained incomplete as discussed in paragraph 4.2.6.	1	62.00	45.35
5.	Gujarat	• In district Narmada, work of Narmada No-Source Regional Water Supply Scheme Part-II, to provide potable water (surface water) to habitants of 12 fluoride affected villages, was awarded (Mach 2012) at a cost of ₹ 4.70 crore and was to be completed by February 2013. Work of supply and laying of pipelines was completed in August 2014 after incurring expenditure of ₹ 3.73 crore. However, the pipe line failed (November 2013 to August 2014) in hydro testing due to leakages at various locations. The contract was terminated in June 2016 due to slow progress of work and non-replacement of defective pipes. As the contractor has gone for arbitration the work remained incomplete after incurring expenditure of ₹ 3.73 crore.	1	4.70	3.73

Sl. No.	Name of State	Brief of work	No. of works	Estimated Cost	Expr. incurred
6.	Himachal Pradesh	• In Ghumarwin, Kaza and Pooh divisions, execution of six schemes, sanctioned during June 2009 and July 2016 to cover 97 habitations, remained incomplete since March 2012 and March 2017 on account of land dispute and non-execution of work by the contractors.	6	7.92	5.46
		• Scheme to provide potable water to habitations in Tehsil Arki of Solan division, was administratively approved in June 2011 for ₹ 21.69 crore. The scheme was however technically sanctioned for ₹ 21.59 crore in February 2015 i.e., after four years of obtaining administrative approval, due to change in water source. The scheme has remained unexecuted as only 81 *per cent* of the expenditure (June 2017) was incurred as advance to the contractor.	1	21.59	3.60
		• 41 schemes in Sadar, Gumarwin and Jhanduta Blocks in district Bilaspur awarded in June 2010 remained incomplete as discussed in paragraph 4.2.6.	41	47.08	38.99
7.	Jammu & Kashmir	• In division Awantipur, four schemes were lying incomplete since March 2013 to March 2016 due to paucity of funds.	4	12.01	6.33
8.	Jharkhand	• In district Palamau, Baratola Water Supply Scheme for fluoride affected habitations, was taken up in October 2009 at a cost to ₹ 16.38 crore to be completed by January 2011.The scheme remained incomplete due to non-acquisition of land and lack of clearances from authorities. The contractor, after executing work for ₹ 12.29 crore (up to March 2013), refused to complete the work on account of increased rates and contract was rescinded in April 2013. Tender for balance work was invited in February 2014 and the work was awarded to a contractor at a cost of ₹ 10.26 crore. The contractor was paid ₹ 8.85 crore (May 2016) and the work still remained incomplete (July 2017).	1	24.75	21.14
		• In district Palamau, Purabdiha Rural Water Supply Scheme for fluoride affected habitations, was taken up in March 2008 at a cost of ₹ 1.33 crore for completion by March 2009. The scheme remained incomplete for want of Ductile iron pipes (to be supplied departmentally) and non-availability of required land. The contract was rescinded (October 2010). The estimate was revised to ₹ 2.53 crore and remaining work was awarded (July 2017) at a cost of ₹ 1.58 crore.	1	2.53	1.44
		• Hulhulla Khurd Rural Water Supply Scheme to provide potable water to fluoride affected habitations in *Gram Panchayat* Julhulla under Block Nagaruntari, sanctioned in December 2007 at a cost of ₹ 0.86 crore, was taken up for execution in September 2008 to be completed by March 2010. However, the work was not completed and terminated for want of pipes (to be supplied departmentally). The work was again taken up at a cost of ₹ 0.74 crore in July 2010 which included supply and laying of pipelines. The work remained	1	0.86	0.85

Sl. No.	Name of State	Brief of work	No. of works	Estimated Cost	Expr. incurred
		incomplete for want of laying of 290 metres of pipelines passing under railway track for which permission from railways authorities still awaited (July 2017).			
		• In district West Singhbhum, 253 PWS schemes (Chaibasa-181 and Chakradharpur-72) were taken for execution during 2012-14 remained incomplete as discussed in paragraph 4.2.6	253	32.83	27.40
		• In district Sahibganj, a Mega Water Supply Scheme for 58 villages in 4 blocks under quality affected component, taken up in July 2012 remained incomplete as discussed in paragraph 4.2.6	1	147.93	117.67
9.	Karnataka	• Two works for supply of potable water to 297 villages of Chamrajanagar and Gundhupet taluks, taken up for execution in March 2014 at cost of ₹ 497.80 crore for completion by September 2015, remained incomplete (March 2017). Besides this, Project Monitoring Consultant appointed for supervision of work after eight months of entrustment of work for a lump sum remunerations of ₹ 7.78 crore, was also granted extended till completion of work at a cost of ₹ 0.38 crore per month which led to extra payment of ₹ 2.29 crore.	2	497.80	
		• In four districts (Baglkot, Gadag, Yadgir and Chitradurga), six works taken up for execution between 2007-08 and 2012-13, remained incomplete as discussed in paragraph 4.2.6.	6	53.20	42.59
		• In three districts (Bagalkot, Gadag and Tumakuru), five water supply schemes taken up during 2007-08, 2011-12 and 2012-13 remained incomplete as discussed in paragraph 4.2.6.	5	42.95	39.56
10.	Kerala	• Six works (WSS to Kottiyur, Kelakam and Kanichar; improvement of rural water supply scheme to Manjaloor *Panchayat;* CARWSS to Thiruvali and adjoining villages; WSS Munniyoor *Gram Panchayat* ARWSS Karoor *Panchayat* and WSS to Meenachil, Thalappalam and Barananganam *Panchayat*), taken up between January 2002 and May 2015 with estimated cost of ₹ 61. 94 crore, remained incomplete due to non-acquisition of required land.	6	61.94	
		• Six works (WSS to Madayl *Panchayat*; CWSS to Irikkur and adjoining villages; WSS to Valavannur–Kalpakanchan *Panchayats*; CARWSS to Thirunavaya and adjoining villages; WSS to Cheekode and adjoining villages and Source sustainability –RWSS to Kakkakuzi in Vettoor *Panchayat*), awarded at cost of ₹ 32.78 crore between March 2014 to October 2016 for completion between September 2014 and April 2017, remained incomplete for want of road cutting permissions.	6	32.78	
11.	Manipur	• Two schemes (PHE Bishanupur division-construction of settling tank, slow sand filter, service reservoir filter media and pump house and PHE Thoubal division–water supply scheme of Bitra), taken up for execution in June 2013 and September 2010 to be completed by June 2015 and September 2013, were incomplete.	2	0.53	0.46

Sl. No.	Name of State	Brief of work	No. of works	Estimated Cost	Expr. incurred
		• The work of RWS at Nongmaikhong at estimated cost of ₹ 0.20 crore was taken up for execution during 2012-13. As of March 2015, expenditure of ₹ 0.11 crore was incurred on settling tank and procurement of pipes. On spot verification it was found that scheme was not yet completed (July 2017) even after more than five years.	1	0.20	0.11
		• In Thoubal division, execution of an ARWS scheme was stated to have been completed in November 2013 at a cost of ₹ 0.66 crore. During physical verification (August 2017), Audit found that the scheme had not been commissioned and the created assets were in a dilapidated state. Further, several assets such as pipelines, filter media, power installations were not found at the work site.	1	0.45	0.66
12.	Punjab	• Work of construction of providing potable water for village Jagga Ram Tirth and Jumber Basti was sanctioned in October 2014 at a cost of ₹ 2.77 crore. The work of Package-I was awarded (October 2014) at a cost of ₹ 1.72 crore to be completed by July 2015. However, the work was lying incomplete due to absence of forest clearance for laying of pipe line. Expenditure of ₹ 1.57 crore incurred on the scheme rendered ungainful.	1	2.77	1.57
13.	Sikkim	• 14 rural water supply works, taken up between December 2012 and January 2015 for completion between November 2013 and January 2016, remained incomplete due to non-availability of material (pipes), change of water source, land dispute, shortage of funds etc.	14	5.14	1.33
		• Three[1] works, sanctioned during February 2014 and February 2015 (sanctioned/awarded cost of ₹ 0.63 crore), though completed (March 2016) or achieved physical progress of 90 *per cent* (March 2017), did not serve its intended purpose as sustainability of water source throughout the year was not ensured.	3	0.63	
		• In district South Sikkim, two[2] works with sanctioned cost of ₹ 0.56 crore, were awarded to Co-operative Society for completion by February 2014 and May 2015. During physical verification (May/June 2017), it was found that both the works were held up due to missing material (G I Pipes) and damage of tank during construction of road.	2	0.56	
14.	Rajasthan	• To provide water to villages where water was being transported through tanks, work of Borabas-Mandana Water Supply project with technical sanction at ₹ 98.10 crore was taken up for execution in September 2012 to be completed by December 2014. The work remained incomplete as forest and wildlife clearances were not obtained.	1	98.10	49.57

[1] RWSS from Hitti dhara to Namphok, Sarki Jhora to Chawangaon and Bhalukhop source to Sangtong
[2] RWSS at Kochey from Tirikhola source and augmentation of RWSS from Tur Khola source to Shyamdas Upper Dwarey Ward

Sl. No.	Name of State	Brief of work	No. of works	Estimated Cost	Expr. incurred
		• In district Bhilwara, the work to provide safe drinking water to 1,698 villages under Chambal- Bhilwara Project to be completed by October 2016 , remained incomplete as discussed in Paragraph 4.2.6.	1	1495.68	204.30
		• In district Phulera, water supply scheme for 173 villages, taken up for execution in July 2013 remained incomplete as discussed in paragraph 4.2.6.	1	226.95	115.68
15.	Telangana	• Nine works, taken up between April 2012 and April 2016 remained incomplete as discussed in paragraph 4.2.6	9	248.18	149.81
		• In Nalgonda district, a CPWS scheme awarded in May 2014 remained incomplete as discussed in paragraph 4.2.6	1	71.00	60.17
16.	Tripura	• Work of setting up 11 Surface Water Treatment Plants taken up between 2007-08 to 2013-14, remained incomplete.	11	44.51	21.19
	Total		**437**	**4,293.49**	**1,667.46**

Annexe-4.2
Abandoned Works
(Refer to para 4.2.9)

(₹ in crore)

Sl. No.	Name of State	Brief of work	No. of works	Expr. incurred
1.	Andhra Pradesh	• Contractors abandoned five[3] works (estimated cost of ₹ 10.94 crore) midway between April 2012 and December 2016. Expenditure of ₹ 6.17 crore was incurred on these works as discussed in paragraph 4.2.9.	5	6.17
2.	Assam	• In Diphu (R) Water Supply Division, a ground water based scheme (Balijan No.1) was completed with an expenditure of ₹ 1.13 crore. However, the work related to installation of deep tube well was unsuccessful after two attempts and the scheme became non-functional. This rendered entire expenditure of ₹ 1.13 crore on the scheme infructuous.	1	1.13
3.	Jammu & Kashmir	• In division Kargil, five works (estimated cost of ₹ 1.59 crore) were abandoned after incurring ₹ 0.40 crore due to land dispute.	5	0.40
		• Two[4] works, completed at a cost of ₹ 0.53 crore in February 2009 and March 2012, remained non-functional.	2	0.53
4.	Jharkhand	• In Medininagar, expenditure of ₹ 0.52 crore on 4.50 km of ductile iron pipes laid in 2012-13 under Baralota Rural Water Supply Scheme was rendered wasteful as the work was rescinded in March 2013. Further, the newly laid pipeline was covered by a road while widening and strengthening of an existing road. Besides, work done at a cost of ₹ 0.20 crore on Water Treatment Plant and GLSR, was also damaged.	1	0.72
		• In district Hazaribag, eight mini rural piped water supply schemes, taken up at a cost of ₹ 1.34 crore for completion by December 2014, remained incomplete after incurring an expenditure of ₹ 0.36 crore due to various factors including non–availability of land. Efforts were not made to complete these schemes even after a lapse of two and half years.	8	0.36
		• In district Palamu, two works (Singra and Bishrampur), taken up at a cost of ₹ 12.19 crore in March 2008 and January 2010, were abandoned as discussed in paragraph 4.2.9.	2	5.52
5.	Karnataka	• In taluk Yelandur, work of construction of overhead tank for piped water supply to B R Hills was awarded at a cost of ₹ 0.22 crore in April 2016 for completion in six months. After incurring expenditure of ₹ 0.04 crore, the work was abandoned due to land disputes.	1	0.04

[3] CPWS to Chintalapudi and strengthening of band and protection works in Prathikollalanka in district West Godavai; Single Village Water Scheme to Krishnayapalem (V) of Mangalagiri (M) and Kuragallu (v) of Mangalariri (M); scheme of Neerukonda (v) of Mangalagiri (M) of district Guntur

[4] WSS Gatoo Goshan and Choka Tacha

Sl. No.	Name of State	Brief of work	No. of works	Expr. incurred
		• In taluk Chamarajanagar, a piped water supply work was awarded for execution in June 2013 at a cost of ₹ 0.12 crore. The work was, however, not progressed after July 2013 after the contractor had completed a portion of the pipeline and construction of pump house at a cost of ₹ 0.05 crore incurred .	1	0.05
		• In district Yadgir, work for water supply to 11 villages was abandoned due to contamination of source after incurring expenditure of ₹ 2.96 crore as discussed in paragraph 4.2.9.	1	2.96
		• In district Chitradurga, water supply work for 27 villages was abandoned due to heavy leakage in pipelines and drying up of source rendering expenditure of ₹ 9.45 crore as wasteful as discussed in paragraph 4.2.9.	1	9.45
6.	Maharashtra	• In district Pune, department did not draw water in village Hinjavadi from identified source (Kasarsai Medium Irrigation project) due to protest by the villagers against drawing of water from the source. This led to expenditure of ₹ 0.37 crore incurred (October 2015) on excavation work of Jack well and approach bridge to the jack well, infructuous.	1	0.37
7.	Nagaland	• A scheme for providing water supply sanctioned during 2014-15 at a cost of ₹ 0.17 crore which was stated to be complete was found (July 2017) to be non-functional due to non-construction of one IRP unit and a public fountain.	1	0.17
		• In district Kohima, project for providing water supply to Sanoru-Peraciezie was taken up in 2014-15 at a cost of ₹ 0.14 crore and stated to have been completed in November 2014. During physical verification (July 2017), the work was found to be incomplete due to land dispute.	1	0.14
		• Scheme to augment water supply to Menguzuma by pumping ground water was taken up in 2014-15 at a cost of ₹ 0.22 crore and was stated to have been completed in November 2014. During physical verification (July 2017), the scheme was found to be non-operational due to non-availability of water at the source.	1	0.22
8.	Odisha	• In division Keonjhar, two works for supply of safe drinking water to 11 habitations were sanctioned during 2012-13 for ₹ 1.16 crore with provision of source, head works, distribution system, rising line, treatment unit, elevated storage reservoir, delivery point, etc. However, the works were abandoned after incurring expenditure of ₹ 0.17 crore as five solar dual pumps were installed in existing tube wells at a cost of ₹ 0.25 crore in these habitations in 2015-16.	2	0.17
		• In division Nuapada, three works sanctioned during 2009-12 for ₹ 1.68 crore were abandoned after incurring expenditure of ₹ 0.25 crore on procurement of pipes.	3	0.25
		• In division Khariar, as per IMIS, physical progress of two works[5] sanctioned during 2010-11 for supply of potable water to a population size of 11,225 was 100 *per cent*. However, physical verification showed that work was abandoned after achieving physical progress of 20 *per cent* and incurring expenditure of ₹ 0.93 crore on source creation and procurement of pipes.	2	0.93

[5] PWS to Thelkodungari and Kuligaon

Sl. No.	Name of State	Brief of work	No. of works	Expr. incurred
		• 1,310 tube-wells executed at a cost of ₹ 3.76 crore become unsuccessful as discussed in paragraph 4.2.9.	1,310	3.76
9.	Punjab	• In divisions Patiala and Rajpura, two water supply schemes[6], constructed at a cost of ₹ 0.62 crore, became non-functional due to leakages in distribution system and non-payment of electricity bills.	2	0.62
		• In district Fatehgarh Sahib, one water supply scheme and 10 hand pumps, installed at a cost of ₹ 0.61 crore, became non-functional due to disputes and water quality problems.	11	0.61
10.	Rajasthan	• In Tehsil Uniyara, work of water supply scheme Bentha Roopwara, taken up at a cost of ₹ 1.73 crore for completion by May 2013 was abandoned by the contractor (March 2013) after incurring expenditure of ₹ 1.02 crore.	1	1.02
		• In district Jaisalmer, water supply scheme (Sagarmal Gopa branch Ramgarh-Sonu-Mokan-Khuniyala) abandoned due to hard strata as discussed in paragraph 4.2.9.	1	1.87
11.	Sikkim	• In district South Sikkim, a water supply scheme was completed in March 2014 at a cost of ₹ 0.47 crore. During physical verification audit found that the entire work had been damaged due to widening of road.	1	0.47
		• In Maniram Bhanjyang, a water supply scheme taken up at a cost of ₹ 1.08 crore was to be completed by November 2014. Physical verification (June 2017) showed that 50 *per cent* of the work was completed at a cost of ₹ 0.30 crore and the pipeline along a six kilometre road was damaged during road widening work.	1	0.30
12.	Uttar Pradesh	• In Raebarely, the Bardar Water Supply Scheme was abandoned due to excess discharge of sand and soil as discussed below paragraph 4.2.9.	1	1.84
	Total		**1,367**	**40.07**

[6] Dharamgarh (Rajpura-November 2014) and Rakhra (Patiala-April 2015)

Annexe-4.3
Non-preparation/implementation of Support Activity plan (IEC, HRD MIS, R&D)
(Refer to para 4.7.1)

Sl. No.	Name of State	Audit Observation
1.	Andhra Pradesh	• Annual plan for IEC, HRD, MIS, R& D was not included in AAP. • Capacity building plan was not prepared at District and State level. • Training module based on Training Needs Assessment Workshop for different stakeholders was not prepared annually. • In Guntur district, ₹ 97.77 lakh was not utilized for support activities as the District did not prepare plan for IEC activities (March 2017).
2.	Arunachal Pradesh	• Department did not prepare a comprehensive plan for implementing IEC/HRD activities. • 13,091 out of 24,463 IEC and 11,858 out of 15,966 HRD activities were reported to be conducted during the five-year period. • There were no records of the exact nature of activities conducted to assess their impact and adequacy.
3.	Assam	• Yearly achievements under various activities were not commensurate with the yearly targets during the entire period of 2012-17. • Achievement against the targets for IEC Activities was three *per cent* during 2012-14 and 19 *per cent* during 2014-17.
4.	Bihar	• Targets were not fulfilled in respect of MIS, IEC and Training during 2013-17. • As per IMIS data, no target was fixed for Support Activities in 2012-13 • During 2012-17, expenditure was not incurred on R&D activities.
5.	Goa	• No expenditure was incurred on IEC activities before 2015-16.
6.	Himachal Pradesh	• Shortfall in achievement of targets during 2012-17 under IEC, HRD and computer program was ranged 18, 5 and 35 *per cent* respectively. • Department did not set up R&D Cell of the Program.
7.	Jammu & Kashmir	• Against targets for IEC activities, there was a shortfall ranging between 34 and 94 *per cent*. • For trainees under HRD, there was a shortfall against targets ranging between 9 and 58 *per cent* during 2012-15 and of 100 *per cent* during 2015-17. • Out of targeted 2.51 lakh persons for training of GPs only 220 were imparted training during 2013-17.
8.	Kerala	• Despite availability of funds, CCDU did not take up programmes under support activities. This was attributed to shortage of manpower. • No activities under R & D were undertaken. • Achievement against target for IEC activities was 45 *per cent* during 2012-17 and it was 12 *per cent* under HRD activities. • Against target of 1.35 lakh trainees, only 16,915 trainees were trained.
9.	Madhya Pradesh	• Three activities were undertaken under R&D. • 8,066 training programs out of 10,078 were conducted under HRD. • Out of selected 44 GPs, IEC, HRD and other awareness activities was not carried out in 42 GPs.

Sl. No.	Name of State	Audit Observation
10.	Maharashtra	• WSSO did not prepare AAP for R&D activities for the approval of SLSSC. • Out of 86,441 activities under IEC, 21,332 (25 *per cent*) were conducted.
11.	Manipur	• Against target of 76,338 IEC activities and 218 training programmes the shortfall was 27 *per cent and 50 per cent* respectively. • No R&D activity and computer training was taken.
12.	Meghalaya	• 20 to 30 *per cent* of the targeted IEC activities were undertaken during 2012-16. • In 2016-17 achievement was 88 *per cent* as targets were drastically reduced.
13.	Mizoram	• No training need assessment was made to develop training module on different subjects. • During 2012-17, out of 6,525 persons targeted for training, only 3,887 were trained during 2012-13 to 2014-15 and no training was done during 2015-17. • No R & D activities were undertaken.
14.	Nagaland	• Against target of 303 training programmes, 209 were conducted during 2012-14. In 2014-15, no training programme was conducted against the target of 900 and no training programme was planned during 2015-17. • No R&D activities were undertaken.
15.	Punjab	• Shortfall in IEC activities was ranged between 14 and 74 *per cent* during 2012-13 and 2014-17.
16.	Rajasthan	• Major part of expenditure for IEC was incurred on State level activities and a very small portion ranging from 0 to 39 *per cent* was incurred on village level activities. • During 2015-17, no district and village level IEC activities were taken up. • No R&D, software development and computer trainings activities undertaken by WSSO.
17.	Sikkim	• No Support Activity Plan was prepared for support activities during the period 2012-17. • Against target of training 880 personnel annually during 2012-17 only 378 and 33 trainees were trained during 2015-16 and 2016-17 respectively. • No R & D activity was carried out.
18.	Telangana	• Support activity plan was not incorporated in AAP fixing targets for training, IEC and HRD activities, etc. • No expenditure was incurred towards R & D activities.
19.	Tripura	• AAP for the support activities was prepared except for R&D activities. • Against the 483 targeted training programmes to be conducted during 2012-17, 389 (80 *per cent*) were conducted.

Annexe-4.4
Shortage of labs, infrastructure and equipment for water quality testing
(Refer to para 4.8.1)

Sl. No.	Name of State	Audit observation
1.	Andhra Pradesh	• Out of 107 laboratories only one lab i.e., the Guntur district laboratory was, accredited.
2.	Arunachal Pradesh	• SLL had only eight staff against the required number of 14. • DLLs of four selected districts had capacity to examine only 10 out of the 34 prescribed parameters. • DLLs had only six staff against requirement of 32.
3.	Assam	• SLL was capable of examining 19 parameters against requirement of 78 parameters. • DLLs were capable of examining 13 to 25 parameters against requirement of 34 parameters. • DLLs had shortage of manpower.
4.	Bihar	• SLL was capable of examining only 17 parameters out of requirement of 78 parameters. • DLLs (selected districts) examined only 14 to 15 parameters out of 34 parameters. • Patna district was arsenic affected, but DLL did not test arsenic contamination due to non-functioning of Spectrophotometer during 2012-17. • Labs at Block/Sub-Division levels were not in existence.
5.	Chhattisgarh	• DLLs (eight selected districts) were capable of examining only 8 to 18 parameters out of 34 parameters. • DLLs except in district Raipur, did not have required infrastructure facilities. • Five DLLs were inadequately staffed while three (Kawardha, Surajpur and Jashpur) had no staff. • SDLLs were functional in only 24 out of 76 PHE Sub-divisions.
6.	Goa	• No labs had NABL accreditation.
7.	Gujarat	• Out of 32 DLLs, only four had NABL accreditation that too only for testing 13 out of 34 parameters. • In SLL only 16 out of 78 prescribed parameters and in DLLs only 14 out of 34 parameters were tested due to non-availability of required instruments.
8.	Himachal Pradesh	• Only 25 labs were set up during 2012-17against target of establishment of 42 laboratories at State/district/block level. • Only 56 labs were strengthened during 2012-17 against target of 106. • In the absence of the required man power such as chemists/bacteriologists, required tests were not conducted in selected districts. • Equipment procured for bacteriological tests were not put to use in absence of trained staff.

Sl. No.	Name of State	Audit observation
9.	Jammu & Kashmir	• None of the 22 DLLs and 78 SDLLs in existence were accredited with NABL. • Staff such as chemist/water analyst were not appointed on regular basis in test checked divisions. • In DLLs only 11 to 13 out of 34 parameters were examined.
10.	Jharkhand	• SLL had NABL accreditation for testing only 10 out of the 78 required parameters. • No DLLS (in selected districts) were accredited with NABL. • DLLs were examining only 5 to15 out of prescribed 34 parameters. • DLLs had shortage of instruments and manpower and Microbiologist/ bacteriologist were not appointed in any of the selected DLLs. • No block level laboratories were established in selected blocks.
11.	Karnataka	• DLLs were not equipped for conducting all prescribed 34 tests. • DLLs were not adequately staffed. • DLLs (in selected districts) did not have essential equipment in working condition and did not maintain required inventory of chemicals.
12.	Kerala	• At block level, labs were functioning in only 33 out of 148 Rural Blocks.
13.	Madhya Pradesh	• SLL was accredited to test only 26 out of 78 parameters. • In selected districts, DLLs had a shortage of 31 staff against a total requirement of 72 persons. • 15 selected blocks had no lab facilities.
14.	Maharashtra	• DLLs in 28 districts did not have NABL Accreditation. • DLLs and 138 SDLLs had no facility for testing arsenic. • Out of a total of 818 post required for the labs at various levels 224 posts remained vacant.
15.	Manipur	• SLL had capability of examining only 14 out of 78 parameters • DLLs had capability of examining only 12 out of 34 parameters. No Microbiologist/ Bacteriologist was posted in the labs.
16.	Meghalaya	• DLLs were in existence in only 7 out of 11 districts. • Out of 41 sub-divisions, laboratories were set up only in 20 sub-divisions.
17.	Mizoram	• State Laboratory and DLLs were not accredited to NABL. • 50 *per cent* manpower shortages were noticed in SLL, DLLs and SDLLs.
18.	Nagaland	• SLL and three selected DLLs did not conduct tests against prescribed parameters due to non-availability of required equipment and chemicals. • DLL in Dimapur was non-functional since its inception. • SDLLs were not set up.
19.	Odisha	• DLLs were not accredited with NABL. • Against a requirement of eight staff per lab there was only one staff in 13 labs, two staff in ten labs and three staff in three labs. • Shortfall in equipment, glassware and chemicals in the labs ranged between 28 and 95 *per cent.*

Sl. No.	Name of State	Audit observation
20.	Punjab	• Labs were inadequately equipped with manpower.
21.	Rajasthan	• SLL did not have facility and equipment for testing heavy metals, pesticides/toxic elements and radioactive elements in drinking water. • DLLs were not strengthened to examine all required parameters.
22.	Sikkim	• Against requirement of four DLLs and nine SDLLs only two DLLs were established. • DLLs at North and West Districts were not established though approval of ₹ 69.92 lakh had been given. • Essential staff such as microbiologist/bacteriologist and sampling assistants were not available in the DLLs.
23.	Tamil Nadu	• In SLL, eight out of 34 parameters were tested. • SLL faced shortage of personnel such as Senior Chemist, Water Analyst, lab Assistant and Sampling Assistant. • Post of Microbiologist/Bacteriologist were not sanctioned and operated in SLL as well as in sampled DLLs.
24.	Telangana	• Only two out of 76 laboratories established during 2010-12 were accredited to NABL.
25.	Tripura	• No action was taken to establish SDLLs though approval was given (August 2009) for 23 new SDLLs at a cost of ₹ 2.82 crore. • None of the labs had the adequate sanctioned strength of manpower. • Equipment supplied to labs were lying unused/in defunct condition.
26.	Uttar Pradesh	• Shortage of 38 staff was noticed in eight[7] out of 10 test checked districts.
27.	Uttarakhand	• In DLLs only 19 out of 34 parameters were examined. • None of the Labs were accredited with NABL.

[7]Agra, Aligarh, Gautam Budha Nagar, Etawah, Jaunpur, Jhansi, Chitrakoot and Sonebhadra.

Annexe-4.5
Shortfall in Water Quality Testing
(Refer to para 4.8.2)

Sl. No.	Name of State	Audit observation
1.	Andhra Pradesh	• Achievement of targets in respect of Bacteriological and Chemical parameters was 39 *per cent* and 52 *per cent* respectively. • In selected districts, out of 4.15 lakh water sources, 50 *per cent* bacteriological and 52 *per cent* chemical tests were conducted. • Required tests were not conducted due to non-availability of sufficient funds and non-procurement of required quantities of refills of chemical reagents and H2S vials.
2.	Arunachal Pradesh	• In selected districts, against the required 92,613 bacteriological/ chemical tests, 40 *per cent* bacteriological/ chemical tests were conducted. • 56 *per cent* both pre and post monsoon testing were conducted as against the required 61,742 tests to be conducted during 2012-17 for 6,839 water sources.
3.	Assam	• In selected eight districts, against the required 28,952 samples tests, SRL conducted 2,564 tests. • DLLs carried out 0.68 lakh tests against 1.03 lakh targeted sources/delivery points.
4.	Bihar	• In selected districts, divisions carried out two to 20 *per cent* test of total sources. • Pre and post-monsoon check of water quality from sources was not done in selected districts.
5.	Chhattisgarh	• In selected eight districts, shortfall in conducting of tests ranged between two to 95 *per cent.* • Testing of all the water samples twice for bacteriological contamination and once for chemical contamination in a year was not done.
6.	Goa	• State laboratory did not conduct the test of fluoride and arsenic contamination.
7.	Gujarat	• None of the districts laboratories re-examined water samples tested in the Taluka laboratories as per guidelines. • Out of 4.40 lakh sources, 33.39 *per cent* were tested in the laboratories during 2016-17.
8.	Himachal Pradesh	• Shortfall to the tests required to be carried out was 88 *per cent*.
9.	Jammu & Kashmir	• IMIS data showed that year-wise tests were carried out during the pre-monsoon and post monsoon. • However, no records/details of the pre-monsoon or post-monsoon tests were available either with the Department or in selected executing divisions
10.	Jharkhand	• In selected districts, shortfall in testing was ranged between 16 and 70 *per cent* for chemical contamination.
11.	Karnataka	• Shortfall in testing was ranged between 90 and 99 *per cent*.

Sl. No.	Name of State	Audit observation
12.	Kerala	• Out of 22.09 lakh 5.80 lakh samples were tested. • Testing of all sources was not carried out due to the shortage of sufficient labs, staffs and other infrastructure.
13.	Madhya Pradesh	• In nine selected districts, against targeted 1.55 lakh samples, 1.38 lakh tests were conducted. • Against the target of conducting biological testing of Pre and post-monsoon samples of 13.20 lakh, 0.58 lakh tests were conducted.
14.	Maharashtra	• Shortfall in testing ranged between seven *to* 42 *per cent.*
15.	Manipur	• Out of targeted 1,800 water sample, 61 *per cent* were tested by State Lab. • Testing of heavy metals was started by State Lab in September 2016 and tested 60 *per cent* against the target of 20 samples. • The State Lab did not take up testing for presence of pesticides/toxic elements and radioactive elements in drinking water. • In four selected districts, against the target of 8,015 tests for DLLs, 73 *per cent* tests were carried out.
16.	Meghalaya	• In selected districts, tests conducted ranged between nil to nine *per cent*. • As per IMIS, tests conducted by RiBhoi DLL were shown as 117, 40 and 87 during 2012-13, 2013-14 and 2014-15 respectively, but laboratory was not functional during these years. • Department stated (September 2017) that tests reported in the IMIS were tests which were conducted through FTKs at the village level.
17.	Mizoram	• In selected Aizawl and Champhai districts, water quality test for 28 to 46 *per cent and* 12 to 17 *per cent* of sources were not conducted in pre and post monsoon respectively.
18.	Nagaland	• No pre and post monsoon tests were carried out for 2,195 sources in Dimapur district.
19.	Odisha	• Laboratories were not testing the mandatory parameters such as nitrate, arsenic, alkalinity (January 2017).
20.	Punjab	• Shortfall in Chemical testing was ranged between 34 and 84 *per cent* during 2013-14 to 2016-17. • No information was available on bacteriological testing as FTKs were distributed in fields to Health and Education department.
21.	Rajasthan	• Out of 20.43 lakh sources to be tested, 8,094 sources were tested both pre and post monsoon.
22.	Sikkim	• In district labs, against the required 36,798 tests each year, actual testing ranged between one and five *per cent* due to acute shortage of manpower. • Treatment of water and fencing of 80 water sources to prevent biological contamination was not done.

Sl. No.	Name of State	Audit observation
23.	Tamil Nadu	• Out of 2.46 lakh samples to be tested each year, 35 *per cent* and one *per cent* tests were carried out during 2015-16 and 2016-17 respectively. • No laboratory tests were conducted by DLLs and SDLLs due to inadequate-receipt of funds from Ministry in 2016-17.
24.	Telangana	• Shortfall in water quality testing ranged between 61 and 65 *per cent* during 2014-15 to 2016-17.
25.	Tripura	• Percentage of tests performed against 63,000 targeted tests was ranged from 20 to 35 *per cent* during 2012-17.
26.	Uttar Pradesh	• In nine selected districts, out of targeted 1.50 lakh sources, tests were carried out for 0.78 lakh sources.
27.	Uttarakhand	• In selected districts, 91 to 95 *per cent* of sources were not tested and number of sources tested twice a year was less than two *per cent*. • Shortfalls attributed to shortage of staff.

Annexe-5.1
Inconsistency in IMIS data
(Refer to para 5.3.1)

Sl. No.	Format	Information given	Remarks
1.	B6	73,87,069 number of water supply scheme sources shown	Different information on the number of sources furnished
	B28	74,42,389 number of water supply sources (72,68,567 ground water and 1,73,822 surface water)	
2.	B28	Incorrect information on latitude/longitude (mentioned as 0,0 in Gujarat), aquifer names (mentioned as fgegefg, abc in Gujarat and Rajasthan)	Information were futile for monitoring purpose
3.	C31	Against expenditure for supply of tankers physical status was shown nil in all the years.	
4.	B15	Piped water and Hand pump schemes for the years 1899-1900, 1900-1901 and 1907-1908 have been shown in respect of States of Haryana and Tamil Nadu.	
5.	D1	During 2016-17, earmarked expenditure (Central) in respect of chemical affected habitations was ₹ 114.52 crore, while in respect of bacteriological affected habitations it was ₹ 35.46 crore. During 2015-16, earmarked expenditure (Central), in respect of chemical affected habitations was ₹ 223.52 crore.	Different information in the amount of expenditure incurred under the earmarked water quality component provided
	D8A	During 2016-17, earmarked expenditure (Central) in respect of chemical affected habitations was ₹ 104.47 crore, while in respect of bacteriological affected habitations it was ₹ 27.89 crore. During 2015-16, earmarked expenditure (Central), in respect of chemical affected habitations was ₹ 220.79 crore.	
6.	C29	For 2016-17, in respect of support fund total available fund was ₹ 409.61 crore.	Variation was due to data of Meghalaya, Nagaland, Tamil Nadu, Tripura and Uttar Pradesh.
	D1	For 2016-17, in respect of support fund total available fund was ₹ 395.97 crore.	

Annexe-5.2(a)
Number of surface water bodies
(Refer to para 5.3.2)

Sl. No.	Name of State	No. of Districts	Data as per IMIS (B-8)	Data as per records of the Department
1.	Andhra Pradesh	4	0	371
2.	Arunachal Pradesh	4	2,602	6,839
3.	Bihar	10	0	37
4.	Chhattisgarh	2	2	0
5.	Gujarat	10	284	317
6.	Jammu & Kashmir	3	190	62
7.	Kerala	4	2	1,288
8.	Madhya Pradesh	10	2	0
9.	Maharashtra	10	10	971
10.	Manipur	4	1,182	1,174
11.	Meghalaya	2	67	300
12.	Mizoram	1	1	7
13.	Odisha	8	2	33
14.	Rajasthan	10	1,039	8
15.	Tripura	2	0	5
16.	Uttarakhand	4	3,565	8,558

Annexe-5.2(b)
Status of Drinking Water Facility at School in selected districts
(Refer to para 5.3.2)

Sl. No.	Name of State	No. of GPs	Number of Schools		No. of School with drinking water facility	
			As per IMIS (B-10)	As per site or records	As per IMIS (B-10)	As per site or records
1.	Arunachal Pradesh	16	62	33	47	22
2.	Assam	46	635	747	533	634
3.	Bihar	40	187	334	185	258
4.	Chhattisgarh	32	122	141	115	122
5.	Jammu & Kashmir	29	114	98	109	70
6.	Jharkhand	38	166	284	150	227
7.	Karnataka	40	358	315	287	303
8.	Kerala	16	0	179	0	179
9.	Madhya Pradesh	44	205	226	174	197
10.	Maharashtra	54	160	139	154	122
11.	MANIPUR	19	58	58	53	25
12.	Meghalaya	16	44	44	24	28
13.	Mizoram	08	31	20	31	20
14.	Nagaland	22	36	34	28	20
15.	Odisha	48	316	434	266	422
16.	Rajasthan	39	143	309	118	209
17.	Sikkim	8	44	38	28	23
18.	Tripura	8	20	28	15	19
19.	Uttar Pradesh	54	89	185	71	171
20.	Uttarakhand	20	35	40	22	36

Annexe-5.2(c)

Status of Drinking Water Facility at Anganwadis in selected districts

(Refer to para 5.3.2)

Sl. No.	Name of State	No. of GPs	Number of Anganwadis		No. of Anganwadis with drinking water facility	
			As per IMIS (B-10)	As per site or records	As per IMIS (B-10)	As per site or records
1.	Arunachal Pradesh	16	71	57	16	15
2.	Assam	46	319	745	140	264
3.	Bihar	40	55	323	47	98
4.	Jharkhand	38	70	304	46	168
5.	Karnataka	40	311	362	215	302
6.	Kerala	16	0	502	0	271
7.	Madhya Pradesh	44	56	125	40	98
8.	Maharashtra	54	133	183	125	151
9.	Manipur	19	15	113	14	10
10.	Meghalaya	16	7	14	5	9
11.	Mizoram	08	15	20	14	16
12.	Odisha	48	203	469	137	392
13.	Rajasthan	39	23	210	15	123
14.	Sikkim	8	6	56	3	27
15.	Tripura	8	39	55	27	42
16.	Uttar Pradesh	54	0	220	0	140

Annexe-5.2(d)

Status of Drinking Water Facility at Schools in whole state as compared to data of education department (As on 31.3.2017)

(Refer to para 5.3.2)

Sl. No.	Name of State	Number of Schools			No. of Rural Schools with drinking water facility		
		As per IMIS	As per Data of Education Department (HRD)	Difference	As per IMIS	As per Data of Education Department (HRD)	Difference
1.	Arunachal Pradesh	3,480	3,513	33	2,898	2,877	21
2.	Assam	29,841	45,827	15,986	23,390	42,357	18,967
3.	Goa	224	1,551	1,327	163	1,200	1,037
4.	Karnataka	47,397	43,895	3,502	38,384	43,785	5,401
5.	Kerala	1,504	11,904	10,400	1,484	11,904	10,420
6.	Madhya Pradesh	91,550	1,07,391	15,841	77,653	1,02,444	24,791
7.	Manipur	2,074	2,973	899	1,700	2,863	1,163
8.	Mizoram	1,940	2,047	107	1,608	1,883	275
9.	Nagaland	2,362	1,874	488	1,786	1,476	310
10.	Punjab	15,176	19,458	4,282	15,175	19,374	4,199
11.	Uttarakhand	6,545	16,994	10,449	5,306	686	4,620

Annexe-5.2(e)

Status of Drinking Water Facility at Schools in selected districts as compared to data of education department (As on 31.3.2017)

(Refer to para 5.3.2)

Sl. No.	Name of State	No. of District	Number of Schools			No. of Rural Schools with drinking water facility			
			As per IMIS	As per Data of Education Department (HRD)	Difference	No. of District	As per IMIS	As per Data of Education Department (HRD)	Difference
1.	Arunachal Pradesh	3	874	779	95	3	783	644	139
		1	245	292	47	1	169	182	13
2.	Assam	9	12,242	19,922	7,680	9	9,850	17,960	8,110
3.	Karnataka	9	17,663	14,728	2,935	8	12,364	13,563	1,199
		1	775	931	156	2	2,244	2,051	193
4.	Kerala	4	479	4,367	3,888	4	469	4,367	3,898
5.	Manipur	4	1,058	1,438	380	4	843	1,431	588
6.	Mizoram	2	706	557	149	2	638	550	88
7.	Nagaland	3	770	587	183	3	611	442	169
8.	Goa	2	224	1,551	1,327	2	163	1,200	1,037
9.	Madhya Pradesh	10	22,349	25,205	2,856	10	18,898	24,016	5,118
10	Maharashtra	4	9,085	8,608	477	4	9,085	8,608	477
		6	14,772	16,414	1,642	6	14,771	16,365	1,594
11	Punjab	7	5,924	7,007	1,083	7	5,924	6,918	994

Annexe-5.2(f)
Water Testing Labs
(Refer to para 5.3.2)

Sl. No.	Name of State	No. of District	Selected Districts		Selected Blocks (Sub-Divisional Level)		Total Mobile Labs	
			As per IMIS	As per Physical records	As per IMIS	As per Physical records	As per IMIS	As per Physical records
1.	Andhra Pradesh	5	14	20	23	18	0	0
2.	Arunachal Pradesh	4	4	4	5	4	0	0
3.	Assam	9	19	27	4	8	7	7
4.	Chhattisgarh	8	8	8	1	1	7	18
5.	Jammu & Kashmir	7	7	7	27	24	4	0
6.	Jharkhand	6	6	6	0	1	1	0
7.	Karnataka	10	14	10	24	18	1	0
8.	Kerala	4	14	14	0	1	0	0
9.	Madhya Pradesh	10	10	9	2	7	0	1
10.	Maharashtra	10	12	13	36	46	0	0
11.	Meghalaya[1]	4	4	3	3	1	0	0
12.	Nagaland	3	3	3	0	0	1	0
13.	Rajasthan	10	10	10	17	2	0	1
14.	Telangana	3	7	7	17	20	0	0
15.	Tripura	2	2	2	5	4	0	0
16.	Uttarakhand	4	0	4	0	4	0	0

[1]In respect of difference in number of labs in **Meghalaya**, the Department agreed that there were errors in IMIS due to the fact that the figures in IMIS could not be corrected.

Annexe-5.2(g)
Non-functional Schemes (as on 31.3.2017)
(Refer to para 5.3.2)

Sl. No.	Name of State	No. of Districts	Total No. of Schemes		Total No. of Non-functional schemes	
			As per IMIS (B-17)	As per Physical records	As per IMIS (B-17)	As per Physical records
1.	Assam	9	44,407	3,108	4,651	357
2.	Bihar	10	36,552	2,76,414	787	50,200
3.	Chhattisgarh	8	44,508	1,00,392	7,564	2,855
4.	Himachal Pradesh	6	18,218	14,217	22	470
5.	Jammu & Kashmir	7	4,675	3,210	7	4
6.	Jharkhand	6	1,10,126	1,18,926	8,031	23,467
7.	Madhya Pradesh	10	1,46,291	51,120	14,416	4,736
8.	Maharashtra	10	58,856	61,260	1,218	7,143
9.	Meghalaya	4	6,368	1,896	277	65
10.	Mizoram	2	255	309	0	0
11.	Nagaland	3	1,280	1,280	3	24
12.	Odisha	8	1,49,224	1,30,741	6,699	1,476
13.	Punjab	7	5,227	5,227	166	38
14.	Rajasthan	10	33,543	17,853	2,111	133
15.	Sikkim	2	2,879	935	0	1
16.	Tripura	2	7,054	8,795	2,267	632
17.	Uttar Pradesh	10	3,09,256	4,11,627	2,413	21,094
18.	Uttarakhand	4	11,435	11,381	9	0

Annexe-5.2(h)

Category of schemes in selected *Gram Panchayats*

(Refer to para 5.3.2)

Sl. No.	Name of State	No. of GPs	Total			PWS				Hand pumps				Others			
			As per IMIS	As per Records	Diffe-rence	No. of Selected GPs	As per IMIS	As per Records	Diffe-rence	No. of Selected GPs	As per IMIS	As per Records	Diffe-rence	No. of Selected GPs	As per IMIS	As per Records	Diffe-rence
1.	Andhra Pradesh	2	50	58	8	10	51	21	30	1	22	23	1	2	0	14	14
		10	135	99	36	2	26	30	4	11	86	69	17	-	-	-	-
2.	Arunachal Pradesh	16	137	107	30	16	133	103	30	16	4	4	0	16	0	0	0
3.	Assam	22	624	1,063	439	6	20	29	9	19	422	635	213	19	14	10	4
		24	1,416	541	875	40	222	159	63	27	1,313	406	907	27	49	365	316
4.	Bihar	40	897	884	13	40	59	50	9	40	839	839	0	40	0	0	0
5.	Himachal Pradesh	6	80	123	43	3	5	9	4	9	41	103	62	1	1	0	1
		20	351	268	83	23	231	173	58	17	154	106	48	-	-	-	-
6.	Jammu & Kashmir	29	354	287	67	27	110	93	17	2	4	9	5	1	1	0	1
		-	-	-	-	2	1	3	2	27	238	201	37	-	-	-	-
7.	Kerala	16	0	542	542	16	0	210	210	16	0	179	179	16	0	153	153
8.	Madhya Pradesh	6	169	226	57	44	40	24	16	6	165	216	51	4	0	11	11
		38	1,241	816	425	-	-	-	-	38	1,205	791	414	-	-	-	-
9.	Maharashtra	11	86	44	42	5	9	15	6	42	98	399	301	35	1	0	1
		43	234	535	301	49	164	74	90	12	48	18	30	19	0	73	73
10.	Mizoram	8	9	46	37	8	9	17	8	8	0	24	24	2	0	5	5

Sl. No.	Name of State	No. of GPs	Total			PWS				Hand pumps				Others			
			As per IMIS	As per Records	Diffe-rence	No. of Selected GPs	As per IMIS	As per Records	Diffe-rence	No. of Selected GPs	As per IMIS	As per Records	Diffe-rence	No. of Selected GPs	As per IMIS	As per Records	Diffe-rence
		-	-	-	-	-	-	-	-	-	-	-	-	1	1	0	1
11.	Nagaland	23	60	52	8	23	60	52	8	23	0	0	0	23	0	0	0
12.	Odisha	4	183	225	42	1	2	3	1	4	170	213	43	-	-	-	-
		44	3,146	3,099	47	47	109	103	6	44	3,026	2,983	43	4	22	22	0
13.	Rajasthan	17	62	226	164	4	4	18	14	10	29	162	133	5	0	17	17
		22	801	265	536	35	75	47	28	29	738	237	501	32	16	10	6
14.	Sikkim	1	34	37	3	2	41	51	10	-	-	-	-	8	37	0	37
		7	212	119	93	6	168	105	63	-	-	-	-	-	-	-	-
15.	Tamil Nadu	42	2,011	1,961	50	42	976	976	0	42	857	807	50	42	178	178	0
16.	Uttar Pradesh	32	2,879	4,138	1,259	4	0	4	4	31	2,765	3,944	1179	-	-	-	-
		22	1,216	1,204	12	50	42	42	0	23	1,364	1,352	12	-	-	-	-
17.	Uttarakhand	13	70	43	27	14	72	39	33	-	-	-	-	2	2	0	2
		7	15	26	11	6	11	22	11	-	-	-	-	5	0	8	8

Annexe-5.2(i)
Number of Habitations with CWPP
(Refer to para 5.3.2)

Sl. No.	Name of State	No. of Districts	Number of Habitations with CWPP	
			As per IMIS (C-17A)	As per site or records
1.	Assam	9	1	0
2.	Jharkhand	6	20	0
3.	Karnataka	10	37	82
4.	Kerala	4	2	0
5.	Maharashtra	10	0	2
6.	Rajasthan	10	50	53
7.	Uttar Pradesh	10	0	4

Annexe-5.2(j)
Status of Water quality of habitation
(Refer to para 5.3.2)

Sl. No.	Name of State	No. of Habitations	Status of water quality of the selected Habitation (Chemically affected, Bacteriological affected or Potable)			
			Potable		Non Potable (Chemically affected, Bacteriological affected)	
			As per IMIS	As per site or records	As per IMIS	As per site or records
1.	Andhra Pradesh	32	32	19	0	13
2.	Assam	184	164	68	20	108[2]
3.	Chhattisgarh	113	106	106	7	4
4.	Karnataka	160	90	90	70	0
5.	Kerala	16	14	14	2	0
6.	Madhya Pradesh	176	176	166	0	10
7.	Maharashtra	54	53	45	1	0
8.	Rajasthan	87	68	62	19	25
9.	Telangana	14	6	6	8	0
10.	Uttar Pradesh	178	175	165	0	9

[2] Information not available in 3 habitations and water quality not tested in 5 habitations

Glossary of Terms and Abbreviations

Glossary of Terms and Abbreviations

Term	Details
AAP	Annual Action Plan
ARWSP	Accelerated Rural Water Supply Programme
BRC	Block Resource Centre
CCDU	Communication and Capacity Development Unit
CPWS	Comprehensive Protected Water Supply
CWPP	Community Water Purification Plant
CWSAP	Comprehensive Water Security Action Plan
DDP	Desert Development Programme
DLL	District Level Laboratory
DPR	Detailed Project Report
DWSM	District Water and Sanitation Mission
DWSP	District Water Security Plan
FTK	Field Test Kit
GIS	Geographical Information System
GPUs	Gram Panchayat Units
GPWSC	Gram Panchayat Water and Sanitation Committee
HRD	Human Resource Development
IEC	Information, Education and Communication
IMIS	Integrated Management Information System
IRPs	Iron Removal Plants
IT	Information Technology
LPCD	Litres per capita per day
MDGs	Millennium Development Goals
MDI	Management Devolution Index
MIS	Management Information System
MVPWSS	Multi Village Piped Water Supply Scheme
MVS	Multi Village Scheme
NABL	National Accreditation Board for Testing and Calibration Laboratories
NDWM	National Drinking Water Mission
NIC	National Informatics Centre
NLM	National Level Monitor
NRDWP	National Rural Drinking Water Programme

NWQSM	National Water Quality Monitoring & Surveillance
O&M	Operation and Maintenance
PAC	Public Accounts Committee
PHE	Public Health Engineering
PHED	Public Health Engineering Department
PPSWOR	Probability Proportional to Size Without Replacement
PWSS	Piped Water Supply Scheme
RCC	Reinforced Cement Concrete
RWSS	Rural Water Supply Scheme
SDGs	Sustainable Development Goals
SDLL	Sub-Divisional Level Laboratory
SLL	State Level Laboratory
SLSSC	State Level Scheme Sanctioning Committee
SRSWOR	Simple Random Sampling Without Replacement
STA	State Technical Agency
SVS	Single Village Scheme
SWSM	State Water and Sanitation Mission
UDWQMP	Uniform Drinking Water Quality Monitoring Protocol
UNICEF	United Nation International Children's Emergency Fund
VMC	Vigilance and Monitoring Committee
VWSC	Village Water and Sanitation Committee
VWSP	Village Water Security Plans
WASMO	Water and Sanitation Management Organization
WHO	World Health Organization
WQM&S	Water Quality Monitoring & Surveillance
WSSO	Water and Sanitation Support Organization

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