

**MINISTRY OF DRINKING WATER AND
SANITATION**

**EVALUATION OF RURAL DRINKING WATER
PROGRAMMES**

**COMMITTEE ON ESTIMATES
(2014-2015)**

**SECOND REPORT
SIXTEENTH LOK SABHA**



**LOK SABHA SECRETARIAT
NEW DELHI**

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(2014-2015)

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MINISTRY OF DRINKING WATER AND SANITATION

**EVALUATION OF RURAL DRINKING WATER
PROGRAMMES**

Presented to Lok Sabha on the 28 April, 2015



**LOK SABHA SECRETARIAT
NEW DELHI**

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COMPOSITION OF THE COMMITTEE ON ESTIMATES (2014-15)

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4. Shri Kalyan Banerjee
5. *Shri Om Birla
6. Shri Dileep Singh Bhuria
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27. Shri Ganesh Singh
28. Shri Kirti Vardhan Singh
29. Shri Rajesh Verma
30. Shri Jai Prakash Narayan Yadav

* Elected vide Lok Sabha Bulletin Part-II No. 987 dated 03.012.2014 consequent upon vacancy caused by the appointment of Shri Hari Bhai Chaudhary, Member of Lok Sabha in the Council of Ministers w.e.f. 09.11.2014.

^ Elected vide Lok Sabha Bulletin Part-II No. 987 dated 03.012.2014 consequent upon vacancy caused by the appointment of Shri Ram Kripal Yadav, Member of Lok Sabha in the Council of Ministers w.e.f. 09.11.2014.

SECRETARIAT

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| 2. | Shri P.V.L.N. Murthy | Joint Secretary |
| 3. | Shri P. C. Koul | Director |
| 4. | Shri U.C. Bharadwaj | Deputy Secretary |
| 5. | Shri R.S. Negi | Under Secretary |

ABBREVIATIONS

ARWSP	Accelerated Rural Water Supply Programme
BE	Budget Estimates
CGWB	Central Ground Water Board
CPCB	Central Pollution Control Board
CSIR	Council for Scientific and Industrial Research
DDP	Desert Development Programme
DPR	Detailed Project Report
GI pipe	Galvanized Steel Pipe
GIS	Geographical Information System
GLAAS	Global Analysis and Assessment of Sanitation and Drinking Water
HGM Maps	Hydro-Geo Morphological Maps
ICDWQ	International Centre for Drinking Water Quality
ICDWQ	International Centre for Drinking Water Quality
IMIS	Integrated Management Information System
J&K	Jammu and Kashmir
JMP	Joint Monitoring Programme
lpcd	Liters per capita per day
MDG	Millennium Development Goal
MDWS	Ministry of Drinking Water and Sanitation
NDWM	National Drinking Water Mission
NE States	North East States
NRDWP	National Rural Drinking Water Programme
NRSC	National Remote Sensing Centre
NSSO	National Sample Survey Organization
O&M	Operation and Maintenance
PC	Partially Covered
PH	Public Health
PHED	Public Health Engineering Department
PRI	Panchayati Raj Institution
PVC pipe	Polyvinyl Chloride
QA	Quality Affected
R&D	Research and Development
RE	Revised Estimates
RFD	Results Framework Document
RGNDWM	Rajiv Gandhi National Drinking Water Mission
SLSSC	State Level Scheme Sanctioning Committee
TDS	Total Dissolved Solids
UN	United Nations
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organization
WQM&S	Water Quality Monitoring and Surveillance

INTRODUCTION

I, the Chairman of the Committee on Estimates, having been authorized by the Committee to submit the Report on their behalf, present this Second Report on 'Evaluation of Rural Drinking Water Programmes'.

2. Water is the primordial source of life on earth. With 71% of the planet covered with water, it is virtually the umbilical cord for all life forms. Given its immense importance for the very survival of living beings, the mankind since antiquity has venerated it as a symbol of divinity and purity. It is an integral part of human existence right from birth to death in all cultures. In India, since ancient times water has been assigned an exalted status in the scriptures and is worshipped as divinity.

3. The Committee observe that although occupying almost two third of the earth surface, water available for human use is a scarce commodity. Apart from eco-systems, its use in agriculture, industry and energy sectors has resulted in less availability of water for drinking. The actual quantity determining a per capita minimum will vary from place to place, depending on the environment. "Water stress", as a term, was popularized by the Swedish hydrologist, which divided the volume of available freshwater resources in a country with its population. By factoring in water requirements for food self-sufficiency, the index treated countries with 1,666 cubic meters of water availability per capita annually or less as water stressed. Countries with less than 1,000 cubic meters of water per capita annually were said to be chronically water stressed, or in a state of water scarcity.

4. In the above backdrop, the Committee selected this subject for indepth examination and Report.

5. The Committee took oral evidence of the representatives of the Ministry of Drinking Water and Sanitation on 15 September, 2014 and 13 October, 2014 and

the representative of the Ministry of Water Resources, River Development and Ganga Rejuvenation on 13 October, 2014. The Committee also heard the views of the experts on 22 September, 2014. Besides, the Committee also sought information and suggestions from all the State Governments and Union Territories in connection with examination of the subject.

6. The Committee considered and adopted this Report at their Sitting held on 15 April, 2015.

7. The Committee wish to express their thanks to the representatives of both the Ministries for tendering evidence before them and for furnishing requisite material in connection with the examination of the subject. The Committee also place on record their sincere thanks to the experts who appeared before the Committee besides furnishing written Memoranda.

8. For facility of reference and convenience, the Observations/ Recommendations of the Committee have been printed in Bold in Part -II of the Report.

NEW DELHI;
22 April, 2015
Vaisakha 2, 1937 (saka)

DR. MURLI MANOHAR JOSHI
Chairperson,
Committee on Estimates.

PART – I
CHAPTER I

(i) Introduction

Water is the primordial source of life on earth. With 71% of the planet covered with water, it is virtually the umbilical chord for all life forms. Given its immense importance for the very survival of living beings, the mankind since antiquity has venerated it as a symbol of divinity and purity. References abound in scriptures about the divine status of water. In fact it is an integral part of human existence right from birth to death in all cultures. In India, since ancient times water has been assigned an exalted status in the scriptures and is worshipped as a divinity. The Public Accounts Committee (2014-15) in their Eighth Report presented to Parliament on 11 December, 2014 have cited numerous instance from Scriptures praising the qualities, virtues and importance of water.

1.2 Extolling the virtue of water, a hymn in the Atharva Veda says as follows:

अम्बयो यन्त्यध्वभिर्जामयो अध्वरीयताम् ।

पुंचतीर्मधुना पयः ॥ (I.4.1)

(As mothers always bring happiness to their children, in the same manner,

The streams, nourishers of mankind, flow incessantly, adding milk and honey to their waters all the way.)

The Yajur Veda grants the status of divinity to water in the following hymn:

शन्नो देवीरभीष्टय आपो भवन्तु पीतये,
शंयोर भिस्रवन्तु नः।(36/12)

(May this divine water be the bestower of ultimate bliss and may it be potable. May it shower happiness on us.)

(ii) **Water Shortage, Stress, Scarcity and Insecurity**

1.3 The Committee observe that although occupying almost two third of the earth surface, water available for human use is a scarce commodity. Apart from eco-systems, its use in agriculture, industry and energy sectors has resulted in less availability of water for drinking and sanitation purposes. Various international agencies have conducted several studies on these crucial aspects and suggested mitigation strategies. GLAAS 2012 (on Global Analysis and Assessment of Sanitation and Drinking Water) Report done by WHO on behalf of United Nations and UN - Water and the World Water Development Report 2014 are some of the contemporaneous ones. Shri Brahm Chellaney in his book 'Water-Asia's New Battleground' while on the various dimensions of availability of water has stated that the four terms widely used in the international discourse on water – water shortage, water stress, water scarcity and water insecurity – remain the subject of debate themselves. "Water shortage" refers to an absolute deficiency where the level of available water cannot meet basic societal and economic needs. The actual quantity determining a per capita minimum will vary from place to place, depending on the environment. "Water stress", as a term, was popularized by the Swedish hydrologist, Malin Falkenmark, who in 1989 developed the Water Stress Index, which divided the volume of available freshwater resources in a country with its population. By factoring in water requirements for food self-sufficiency, the index treated countries with 1,666 cubic meters of water availability per capita

annually or less as water stressed. Countries with less than 1,000 cubic meters of water per capita annually were said to be chronically water stressed, or in a state of water scarcity.

1.4 The Food and Agriculture Organization of the United Nations, views internal renewable water availability of less than 2,000 cubic meters (m³) per person per year as an indicator of water scarcity, with a figure below 1,000 m³ per inhabitant per year signifying acute scarcity and a serious constraint on socio-economic development and environmental protection.

1.5 The United Nations, through its principal mechanism, UN-Water, has coined a simple definition of water scarcity. “The point at which the aggregate impact of all users impinges on the supply or quality of water under prevailing institutional arrangements to the extent that the demand by all sectors, including the environment, cannot be satisfied fully”. This definition does not differentiate between water stress and water scarcity. “Water security“, by contrast, is a term the United Nations Development Program has promoted as part of its human security concept: “In broad terms, water security is about ensuring that every person has reliable access to enough safe water at an affordable price to lead a healthy, dignified and productive life, while maintaining the ecological systems that provide water and also depend on water.” A high external supply dependency ratio, coupled with a growing strain on accessible resources, often spurs water insecurity.

(iii) National Goal

1.6 Under the National Policy framework the national goal is to provide every rural person with adequate safe water for drinking, cooking and other domestic basic needs on a sustainable basis. This basic requirement should meet minimum water quality standards and be readily and conveniently accessible at all times and in all situations. The basic minimum service level of potable drinking water supply service in rural areas that was adhered to since inception of ARWSP was 40 lpcd. From the 12th Five Year Plan the focus has shifted to provision of piped water

supply. The vision for rural domestic water supply in the Strategic Plan of the Ministry is to cover all rural households with safe piped drinking water supply @ 70 lpcd. The norm of 40 lpcd has been continuing for the last 4 decades and there is a large population that has to be provided with higher service levels hence as an interim measure the norm is 55 lpcd for humans to meet the following requirements:

Purpose	Quantity (lpcd)
Drinking	3
Cooking	5
Bathing	15
Washing utensils and house	10
Ablution/Toilets	10
Washing of clothes and other use	12
TOTAL	55

1.7 During evidence the Committee desired to know the quantity of water being provided to people living in urban areas in the country. The Secretary, MDWS stated:

"In some States it is 70 litres and it is 55 litres in some other States and it is also upto 100 litres in some other States. It is more than 100 litres in Goa. It is 135 litres in Delhi."

1.8 Taking serious note of the wide gap between availability and inadequacy of water in urban and rural areas which is 40 lpcd for rural areas and 135 lpcd in some urban areas, the Committee sought an explanation on the same to which the Secretary, MDWS replied:

"Per person seven to eight litres water is required for drinking and cooking. According to that this conservative norm of 40 litres has been kept because the water is not available. This is the problem."

1.9 The Secretary further added:

"the Ministry want to give more but were unable to do so. That is a problem".

(iv) Rural Water Supply

1.10 Provision of safe drinking water is a basic necessity. Rural drinking water supply is a State subject and has been included in the Eleventh Schedule of the Constitution among the subjects that may be entrusted to Panchayats by the States. However, considering the magnitude of the problem, the Central Government supplements the efforts of the State Governments. A water supply and sanitation programme was introduced in the social sector in the country in 1954. Government of India's major intervention in water sector started in 1972-73 through the Accelerated Rural Water Supply Programme (ARWSP) for assisting States/UTs to accelerate the coverage of drinking water. This was modified and renamed as the National Rural Drinking Water Programme (NRDWP) in 2009-2010. A separate Ministry of Drinking Water and Sanitation was formed in July 2011 by upgrading the erstwhile Department of Drinking Water & Sanitation under the Ministry of Rural Development.

1.11 As per the Government of India (Allocation of Business) Rules, 1961 the Ministry of Drinking Water and Sanitation is entrusted with the following mandate:

- "(a) Rural Water Supply (subject to overall national perspective of water planning and coordination assigned to the Ministry of Water Resources), sewage, drainage and sanitation relating to rural areas; international cooperation and technical assistance in this field.
- (b) Public cooperation, including matters relating to voluntary agencies in so far as they relate to rural water supply, sewage, drainage and sanitation in rural areas.
- (c) Cooperatives relatable to the items in this list.

- (d) Coordination with respect to matters relating to drinking water supply projects and issues which cover both urban and rural areas."

1.12 From the information furnished to the Committee in connection with the examination of this subject, the Committee observe that provision of drinking water has been on the agenda of the Government almost from the time India gained freedom. A brief account of the evolution of the planning process in the domestic water front and the major land marks are summarized in the Table below:

Drinking Water Supply Programs & Policies at a Glance	
Year	Event
1949	The Environment Hygiene Committee (1949) (Bhor Committee) recommended the provision of safe water supply to cover 90 per cent of India's population in a timeframe of 40 years.
1950	The Constitution of India specifies water as a state subject.
1969	National Rural Drinking Water Supply program was launched with technical support from UNICEF and Rs.254.90 crore were spent during this phase, with 1.2 million borewells being dug and 17,000 piped water supply schemes being provided.
1972-73	The Accelerated Rural Water Supply Program (ARWSP) was introduced by the Government of India to assist States and Union Territories to accelerate the pace of coverage of drinking water supply.
1981	India as a party to the International Drinking Water Supply and Sanitation Decade (1981-1990) declaration set up a national level Apex Committee to define policies to achieve the goal of providing safe water to all villages.
1986	The National Drinking Water Mission (NDWM) was launched to accelerate the process of coverage of the country with drinking water.
1987	First National Water Policy was drafted by Ministry of Water Resources giving first priority for drinking water supply.
1991	The National Drinking Water Mission (NDWM) was renamed as Rajiv Gandhi National Drinking Water Mission (RGNDWM).
1994	The 73 rd Constitution Amendment made provision for assigning the responsibility of providing drinking water to the Panchayat Raj Institutions.
1999	A separate Department of Drinking Water Supply in the Ministry of Rural Development, Govt. of India was formed. For ensuring sustainability of the systems, steps were initiated to

	institutionalize community participation in the implementation of rural drinking water supply schemes through sectoral reforms. Sectoral Reforms ushered in a paradigm shift from the 'Government-oriented supply-driven approach' to the 'People-oriented demand driven approach'. The role of the government reoriented from that of service provider to facilitator.
2002	Scaling up of sector reform was initiated in the form of Swajaldhara programme. The National Water Policy was revised; priority was given to serving villages that did not have adequate sources of safe water and to improve the level of service for villages classified as only partially covered. India committed to the Millennium Development Goals to halve the proportion of people without sustainable access to safe drinking water and basic sanitation by 2015, from 1990 levels.
2005	The Government of India launched the Bharat Nirman Program, with emphasis on providing drinking water within a period of five years to 55,069 uncovered habitations, habitations affected by poor water quality and slipped back habitations based on 2003 survey. Revised sub Mission was launched as component of ARWSP for focused funding of quality affected habitations.
2007	Pattern of funding under Swajaldhara was changed: 50:50 centre-state share.
2009	National Rural Drinking Water Programme was launched w.e.f 1/4/2009 by modifying the earlier Accelerated Rural Water Supply Programme and subsuming earlier sub Missions, Miscellaneous Schemes and mainstreaming Swajaldhara principles.
2010	Department of Drinking Water Supply was renamed as Department of Drinking Water and Sanitation
2011	Department of Drinking Water and Sanitation upgraded as separate Ministry of Drinking Water and Sanitation

(v) National Rural Drinking Water Programme (NRDWP)

1.13 Under the National Rural Drinking Water Programme (NRDWP) Government of India supplements the efforts of the States by providing them with technical and financial assistance for providing safe and adequate drinking water supply to the rural areas of the country. The mode of implementation of NRDWP is through State Government Departments/Boards in charge of rural drinking water supply.

1.14 Under the NRDWP, the State Governments are vested with the powers to plan, approve and execute drinking water supply schemes. The projects/schemes to provide drinking water to the rural population are approved at the State level Scheme Sanctioning Committee (SLSSC) in which representative of the Ministry of Drinking Water and Sanitation is present to see that the schemes are sanctioned / approved as per the Annual Action Plan.

1.15 This programme focuses on the following areas:

- Coverage:

- Moving forward from achieving habitation level coverage towards household level drinking water security & coverage.
- Moving away from over dependence on single drinking water source to multiple sources through conjunctive use of surface water, ground water and rainwater harvesting.
- Giving flexibility to States to adopt better service norms for determining coverage viz. distance to handpump, persons per handpump, quantity of water per person, etc.

- Water Quality:

- Consciously moving away from high cost treatment technologies for tackling arsenic and fluoride contamination to development of alternative sources in respect of arsenic and alternate sources/dilution of aquifers through rainwater harvesting for tackling fluoride contamination and conveyance through piped water supply schemes. Next priority to provide safe drinking water in salinity, iron and nitrate affected habitations.
- Focus is given on setting up Community Water Purification Plants.
- 5% additional earmarked funds for tackling chemical contamination and JE/AEs on a ratio of 75:25 respectively.

- Sustainability:

- Ensuring sustainability in drinking water schemes for which 10% of NRDWP allocation is provided on 100% Central share basis.
- Convergence of all water conservation programmes at the village level ;
- Encouraging water conservation methods including revival of traditional water bodies
- Ensuring household level drinking water security through water budgeting and preparation of village water security plans.

- Encouraging roof top rainwater harvesting in difficult & hilly areas.
- Support:
 - Subsuming support activities like Information Education and Communication, Human Resource Development, Management and Information System, Research & Development, State Technical Agency in NRDWP and providing it 5% allocation in NRDWP funds.
- Management Devolution Index:

Incentivizing States to hand over management of rural water supply schemes to Panchayats. 10% of NRDWP funds is reserved for this purpose.
- Water Quality Monitoring & Surveillance:

Setting up / upgrading Laboratories at State, District, Block and Sub-division levels, mobile water testing vans, maintenance & recurring expenditure of all Labs including hiring manpower, training State chemists & engineers, PRI members, awareness generation on Water Quality, procurement of field test kits and refills and bacterial vials for GPs. 3% of NRDWP funds allocated to States is earmarked as 100% Central share for this purpose.

Chapter II

Financial and Physical Performance

(i) Investment in Rural Water Supply Sector

According to the Outcome Budget and other documents furnished by the Ministry of Drinking Water and Sanitation, an investment of more than Rs. 1,64,700 crore was made in the rural water supply sector by the Centre and the States since the first Five Year Plan. However, habitations where the entire population is fully covered with adequate and potable drinking water are only about 75 per cent.

2.2 On the question of the timeline to cover the remaining 25 per cent of habitations so that the entire population is provided with adequate and potable drinking water, the Ministry in their written reply stated that in respect of the time line to cover entire population, they have prepared a Strategic Plan for rural drinking water supply for the period 2011-2022, covering the two Five Year Plan periods, which stresses on extending the piped water supply to more households in the rural areas. The interim goal till 2017, is to cover 50% of all rural households with piped water supply, and 35% of rural households with household tap connections. By 2022, the goal is to cover 90% rural households with piped water supply and with 80% having household tap connections subject to availability of adequate funds/ budgets.

(ii) XI and XII Plan Allocation and Expenditure

2.3 On being asked about the details of allocation and expenditure of funds and the coverage of habitations in the National Rural Drinking Water Programme

(NRDWP) in the XI and XII Plan periods MDWS furnished the following information to the Committee:

(Rs. in crore)

Year	BE	RE	Actual Expenditure
<i>XI Plan</i>			
2007-08	6,500	6,400	6,441.63
2008-09	7,300	7,300	7,298.78
2009-10	8,000	7,999	7,989.72
2010-11	9,000	9,000	8986.74
2011-12	9,350	8500	8493.15
Total XI Plan	40,150	39,199	39,210
<i>XII Plan</i>			
2012-13	10,500	10,500	10489.05
2013-14	11,000	9700	9691.29

They further informed that the Twelfth Plan allocation for National Rural Drinking Water Programme is **Rs.68,786 Crores**.

(iii) XI and XII Plan Physical Performance

2.4 As regards the year-wise coverage of habitations under National Rural Drinking Water Supply Programme in the XI & XII Plan, the following information was submitted to the Committee:

Year	Not covered / Un-covered *	(Partially Covered) / Slipped- back	Quality affected	Total
<i>XI Plan</i>				
2007-08	11,457	75,201	18,757	105,415
2008-09	17,422	114,037	21531	152,990
2009-10	377	119,444	32,734	152,555
2010-11	376	91,918	27,107	119,401
2011-12*	0	1,16,246	22,121	138,367
Total XI Plan	29,632	400,600	122,250	668,728
<i>XII Plan</i>				
2012-13	0	1,36,304	19,402	155706

2013-14	0	1,36,780	16649	153429
Total		6,73,684	1,58,301	9,77,863

* As on 1.4.2011, there are no identified uncovered habitations remaining.

2.5 The Committee during the course of Oral Evidence of the representatives of MDWS desired to know the reasons for mismatch of figures of covered and uncovered, slip back and quality affected Categories under the National Rural Drinking Water Programme in the 11th Plan period and how the Ministry reconciled these figures particularly when the targets for access of drinking water has been preponed to 2019 instead of 2022. In response, a representative of the MDWS deposed:

"The States fill up all these data, sir, these are not data, but figures, sir you are speaking right, Sir I will add one more reason, sometimes rivers sources also get dry. Sometimes the water sources get dried from where we keep drawing water. All these reasons are there that is why there is a slip-back. We are trying that we will do it in a sustainable way and if we take water from there then it will not dry and it will be permanent.

Sir, we are trying. It is for the Planning Commission but we are trying."

2.6 To a specific query regarding State-wise utilization of funds allotted to the NRDWP in terms of both money allocated and percentage share as part of the national share, MDWS informed the Committee that upon the finalization of Annual Action Plan in the beginning of the Financial Year, NRDWP Funds are allocated to States under various component of NRDWP as per norms envisaged in NRDWP Guidelines. Funds under NRDWP are released to States on receipt of utilization of funds under Central and State share depending on the funding pattern. Funds are released under NRDWP components viz. Support, WQM&S, DDP and Sustainability on 100% Central share basis. Fund components, viz. Coverage, Water Quality, O&M and 5% W.Q Earmarked Fund are released on 50: 50 basis to all States/UTs except for J&K and NE States where it is on 90:10 basis. State-wise

utilization of funds under NRDWP (both State and Central share) for the year 2013-14 is given in **Appendix-I**.

2.7 When asked about any internal mechanism/organization/system in place to check the utilization of funds by the State Governments, the Ministry in their written reply stated that they release the funds under NRDWP on receipt of utilization certificates of financial / physical progress and audit certificate from the States. Moreover, National Level Monitoring and Internal Audit are in place to check the utilization of funds by the State Governments. Senior officers and area officers do visit the States to cross check the work done and fund utilization during the course of a financial year.

(iv) Slipback/Quality Problem

2.8 The Committee note from the information furnished to them that there are no un-covered habitations under NRDWP since 2011-12. However, during the last seven years, on an average about 1.4 lakh habitations, every year, slip back or get affected by quality problem.

2.9 When asked whether any study has been conducted by MDWS to know the factors behind the recurring phenomenon of as many as 1.4 lakh habitations slipping back/ affected by quality problem every year, the Ministry in their written reply stated that the reasons for slippage are as follows :

- (i) Because of livelihood & food security as well as industrial growth, there is more exploitation of ground water resulting into depletion of ground water level causing drying of source.
- (ii) Uncontrolled pollution of surface water source arising out of industrial growth and fast pace of urbanization without matching drainage/sewage treatment.
- (iii) Inconsistent and/or less rainfall, erratic pattern of rainfall.
- (iv) Natural calamities such as floods, cyclone, and landslide also cause disaster/disruptions in water supply scheme which is irreparable in short period.
- (v) Erratic/non-availability of power.

2.10 However the Ministry added that the primary reason for slippage of fully covered habitations to partially covered / quality affected habitations status is the over dependence of rural water supply schemes on ground water and the indiscriminate extraction of ground water for irrigation needs , thus resulting in lowering of water table making the rural water supply schemes dependent on them dysfunctional. Tackling Water Quality problems have also been the focus of this Ministry. Upto 67% of allocation to States can be spent on either coverage or tackling water quality affected habitations. From 2012, 5% of allocation at the National level is provided to States having chemical contamination problems in drinking water as well as to States with high incidence of Japanese Encephalitis and Acute Encephalitis syndrome cases. The problem of Water Quality is a dynamic one, with chemical contamination reports for ground water being reported in many parts of the country primarily due to deeper drilling for drinking water sources. The Ministry has also asked the States to ensure maintenance of traditional and old water bodies which could be used as surface sources for drinking water scheme by utilising the NRDWP Sustainability fund. The Ministry has also been asking State Governments to ensure that schemes once installed do not slip back in terms of service delivery by ensuring regular Operation & Maintenance with participation of local PRIs.

2.11 To ensure sustainability, the Ministry have, under NRDWP, provided 10% of the funds to the States on 100% Central share basis to be spent on ensuring sustainability of drinking water sources. This fund is utilised for construction of structures for recharge of ground water which is essential for ground water based water supply systems. States are also provided 15% funds under NRDWP for Operation & Maintenance activities which is utilised to ensure sustainable service delivery. Recently, the Ministry has written to the States to identify the surface water reservoirs in their States for sourcing water for new piped water supply schemes and also to the Ministry of Water Resources to allow/reserve a certain percentage of water from these reservoirs for usage for drinking water supply

schemes. These steps along with focus of the Ministry to go for new surface water based rural water supply schemes will reduce the problem of slippages. The Ministry has not conducted any study of the factors behind the recurring phenomenon of slippages as the reasons behind these are very apparent and known and only require consistent and concerted action on the part of State implementing agencies to work towards achieving the policy directives.

2.12 The Committee in a Post Evidence query desired to know the extent to which allocation for Operation & Maintenance (O & M) has been able to check slip back problem in various States. The Ministry in their written reply stated that there is no available data with them directly correlating the increase in O&M funds under NRDWP with the reduction in incidence of slipped back habitations. It is pertinent to mention here that the incidence of slipping back of fully covered habitations to partially covered ones may not be entirely due to the lack of Operations and Maintenance of the existing rural water supply schemes. The O&M component definitely helps in the reduction of slip back habitations due to timely corrective interventions. However, the groundwater based rural water supply systems may become defunct due to reduction of water table caused by excessive extraction of water for irrigation purposes. In such an event even the effort of the State Government to rejuvenate the source using sustainability and O&M component under NRDWP may not result in increasing the yield to optimum level and making the scheme fully functional in the area thereby preventing the slip back. Similarly, drying up due to drought/ less flow of surface sources can make a surface based water supply schemes defunct resulting in the slip back of habitations. The coverage of fully covered habitations, is, however, increasing over the years.

2.13 Not convinced by the position explained by the Ministry regarding habitations which were earlier fully covered having slipped back to partially covered or uncovered due to poor O&M functioning, the Committee desired to know as to why there is no system in place to ensure that slip-back of habitations is avoided

cent per cent. MDWS in their written reply stated that although there are many reasons of slip back which are beyond control of this Ministry, States have been advised to go for water supply schemes from perennial surface water sources to avoid slip -back.

(v) XI and XII Plan Evaluation

2.14 As stated previously in this Report there have been slippages of fully covered habitations to partially covered status due to various reasons like over-exploitation of ground water without adequate recharge leading to drying up of sources or reduced yields, increase in population, setting up of new habitations, contamination of drinking water sources due to leaching of fertilizers, sewage and industrial effluents into ground water, etc. In this regard, the Committee desired to be apprised of the achievements of the Eleventh Plan which focused on sustainability in water availability and quality, etc., and also the quantum of slip back to partially covered status. They also wanted to know the sustainability measures and strategic plans being worked out to see that habitations do not slip back to partially covered status.

2.15 The Ministry in their written reply submitted the data relating to creation of different types of sustainability structures as entered by the States on the Integrated Management Information System (IMIS) of the Ministry is available from year 2009-10 only since the inception of this System. The year-wise sustainability structures created as per information entered by the States on the IMIS of the Ministry from 2009-2010 to 2013-14 is at **Appendix-II**.

2.16 The sustainably structures are created for recharge of ground water in totality and are not done habitation wise. The overall increase in ground water level as a result of successful creation of recharge structures increase the availability of water for many habitations in and around the areas of these structures and hence a direct correlation between the creation of sustainability structures in an area with that of the status of coverage of particular habitation

cannot be established. There might be some instances of fully covered habitations slipping back to partially covered status even after having taken sustainability measures but in general the sustainability measures undertaken and the creation of sustainability structures result in the improvement of ground water levels which in turn improve the coverage status of habitations.

2.17 As regards the ongoing Plan, the Committee were informed that the focus of the Ministry during the XII Five Year Plan is on piped water supply rather than on hand pumps. For this the States have been asked to discourage the installation of hand pumps and go for more and more piped water schemes based on surface water sources. This along with the creation of water recharge structures under sustainability component of NRDWP will result in reduction of slippage of habitations from fully covered status.

(vi) Access to Drinking Water

2.18 As per NSSO survey for the period July, 2012- December, 2012, only 88.5 per cent of rural household have access to drinking water from protected sources. Thus, 11.5% rural households are yet to have access to drinking water from protected sources. However, as per the Ministry of Drinking Water and Sanitation there was no identified uncovered habitation remaining under NRDWP since 2011-12 onwards. The Ministry of Drinking Water and Sanitation while substantiating their view submitted that the main sources of data on coverage of rural habitations and population with drinking water supply are the NSSO report (69th round –July-December 2012), the Census 2011 reports and the data entered by the States on the IMIS of the Ministry. The NSSO survey of 2013 (69th round) gave information on the coverage of rural households, showing 88.5% of the population getting water from safe sources. These households were covered with piped water, tap connections, hand pumps and all protected wells, which is the definition of “improved sources” used by the Joint Monitoring Programme (JMP) of UNICEF

and WHO, which monitors the achievement of the MDGs by countries. India has achieved its MDG goal of halving the population without access to safe sources as it existed in 1990. The Census 2011 has also assessed access to drinking water facilities of all rural households in the country and reported that 84.02% of the rural households have tap water, covered well water and hand pump/ tube well water as the main source of drinking water.

2.19 The data on the IMIS as entered by the States as on 1.4.2014, indicate that out of the 1,696,664 rural habitations, about 1,249,695 habitations are fully covered (as measured on the basis of 40 lpcd), 368,463 are partially covered and 78,506 quality affected. Thus 95.37 % of rural habitations have access to safe drinking water. The order of coverage reported in all the three sources are similar, with variations that exist possibly being due to varying time frames of the survey and the sample size and methodology of data collection. However to verify the data on the IMIS the Ministry has in 2012-13 commissioned an independent evaluation study of the data entered on the IMIS by States, the final report of which is awaited.

(vii) NRDWP Physical Targets and Achievements

2.19 The physical progress under rural drinking water supply programme during the years 2008-09 to 2011-12 is given in the table below:

Year	Habitation Coverage Target	Achievement (Actual coverage)
2008-09	217898	152990
2009-10	158589	148879
2010-11	121812 (135000 as per Twenty Point Programme)	119401
2011-12	100000 (145169 as per Twenty Point Programme)	138367

2.21 Physical progress under NRDWP furnished by MDWS from 2012-13 onwards is as follows :-

Physical Progress:

Year	Coverage of PC habitations		Coverage habitations of QA		Achievement of habitations with piped water supply	
	Target	Achievement	Target	Achievement	Target	Achievement
2012-13	91,750	77,388 (84%)	28,642	19,402 (68%)	63,297	52,021 (82%)
2013-14	53,657	51,823 (96%)	21,771	16,649 (76%)	64,342	56,384 (88%)
2014-15 As on 28.08.14	61,418	8,304 (13.52%)	21,818	2,498 (11.45 %)	52,807	11,798 (22.34%)

PC-partially covered.

QA-Quality affected.

2.22 The physical achievement under NRDWP are considerably below the targets particularly the coverage of quality affected habitations which was merely 68% in 2012-13 and 76 % in 2013-14 even after almost full utilization of funds allotted for the purpose. Besides, the deliverables shown in the Outcome Budget were far lower than the targets given in the preliminary material for the year 2012-13 and vice versa for the year 2013-14. The deliverables given in the Outcome Budget for coverage of PC/slipped back habitations and quality affected habitations are only 75,000 and 25,000 respectively for the year 2012-13 as against the targets of 91,750 and 28,642 shown in the material submitted to the Committee. However, for the year 2013-14, the deliverables shown in the Outcome Budget are higher viz. 75,000 and 22,000 respectively as against the targets of 53,657 and 21,771. The Committee desired to know the reasons for low deliverables and the cause of deviation of figure given to the Committee and those contained in the Outcome Budget, 2013-14.

2.23 In response, the Ministry in their written reply stated that the focus is on providing safe drinking water in all water quality contaminated habitations in the

rural areas of the country. Specific focus is given for early coverage of fluoride and arsenic affected habitations. Emerging contaminants like heavy metals and pesticides are also being prioritized for coverage within 2 to 3 years. Against the target of 28,642 water quality affected habitations, the State Governments reported coverage of 19,402 habitations during 2012-13. It may be noted that out of 2,462 targeted arsenic affected habitations, achievement is only 1,401 because the State Governments are contemplating for large surface water based piped water supply schemes whose shelf life of commissioning is around 3 to 4 years. The same is the case of fluoride with achievement reported at 4,155 habitations out of 5,992 habitations. Out of a targeted 15,408 iron affected habitations, achievement was 11,171 habitations. The Ministry agreed that 100% target could have been achieved 'as iron removal technology is very simple' and submitted that they will 'definitely focus on this particular issue'. Out of a targeted 3,740 salinity affected habitations, the achievement reported was 1,864. It may be noted that the majority of salinity affected habitations are reported due to inland salinity especially from Rajasthan, Karnataka and Uttar Pradesh. Here also proper source needs to be identified which has low TDS values and therefore, the coverage is low. Out of 1,040 nitrate affected habitations, 811 have been achieved with majority of them have been covered in Karnataka, Maharashtra and Gujarat. During 2013-14 against the target of 21,771 water quality affected habitations, the achievement was 16,649. Similar trend could be noted like that of 2012-13 with partial target achievement in arsenic and fluoride affected habitations.

2.24 It was further stated that they were of the view that the piped water supply schemes taken up by different States are likely to be commissioned shortly and the State Governments will report coverage immediately after these projects are commissioned. The actual targets (deliverables) in respect of covering partially covered habitations and quality affected habitations for the year 2012-13 are 75,000 and 25,000 and for the year 2013-14 are 75,000 and 22,000 respectively. These figures are stated in outcome Budget.

2.25 In view of the fact that the targeted coverage of quality affected habitations in 2014-15 is just 21,818 habitations, the Committee desired to know how many quality affected habitations are yet to be targeted for coverage, to which the MDWS stated that there are about 78,506 water quality affected habitations apart from emerging contaminants like heavy metals and uranium. Therefore, roughly about 57,000 remaining water quality affected habitations are yet to be covered in a time bound manner, however, this includes 14,133 fluoride affected habitations and 1,991 arsenic affected habitations to be covered before March, 2017, either through community water purification plants or surface water based piped water supply schemes.

2.26 During the Oral Evidence when asked about the reasons for not achieving more than 70 % of physical targets after incurring 80 – 90 % of their allocation, a representative of MDWS stated that this time they will achieve the target because focus has now been shifted from hand pumps to piped water.

2.27 The Committee further desired to know the reasons for about one and half time increase in the physical targets i.e. from 91,750 in 2011-12 to 1,30,153 for the year 2012-13. A representative of MDWS stated that the data earlier furnished has been amended and forwarded to the Committee.

2.28 On being queried by the Committee as to why the Ministry of Drinking Water and Sanitation had not furnished any reasons for amending the information earlier furnished and at what level was the previously submitted statistical information approved, a representative of MDWS stated during the Oral evidence:

"Today the figures which have been given to you and our figures which were given yesterday and the figures of the Outcome Budget are our figures which are finalized by the Ministry in coordination with the Department of Finance but under the 20 Point Programme we give some more figures because 20 Point Programme is monitored directly by the State and the work which is done under the said programme on water and for which State itself provides data separately and to monitor from here, sir, we give the figures of the Outcome Budget in R.F.D.

also. First, we fix figures at Ministry level and after that we distribute them to each State. For example, the total figure is of one lakh and we will do one lakh water supply this year in the whole country, then sir, we distribute that one lakh in each State as per the performance of the State taking in view their past performance. Sir, it also takes two to three years to make pipe water schemes which are a big schemes. So the annual action plan which is formulated in February - March and in that action plan we take the figures from the Outcome Budget and we put before the State the target of one and a half times more figures so that the target of the year can achieved. If it crosses the target fixed then no worry but sir, it is an internal matter. We show the figures of Outcome Budget everywhere."

(viii) Shortfall in coverage under NRDWP

2.29 From the Outcome Budget of MDWS, the Committee observe that there has been a shortfall in achievements for coverage of habitations under NRDWP during 2013-14 in 13 States as per table below:-

S.NO	State	Target	Coverage	Percentage of Achievement
1.	Assam	7,174	6,552	91
2	Bihar	14,100	12,787	91
3	Haryana	861	702	82
4	Jammu & Kashmir	963	901	94
5	Kerala	839	356	42
6	Maharashtra	5,066	46,04	80
7	Meghalaya	755	549	73
8	Punjab	1,545	1,227	79
9	Rajasthan	4,835	4,244	88
10	Sikkim	200	87	43
11	Tamil Nadu	6,000	5,742	96
12	Uttar Pradesh	24,612	22,666	92
13	Uttarkhand	1,083	988	91

2.30 The Committee desired to know the reasons for shortfall and the strategy to improve coverage of habitations under NRDWP. The MDWS in their written reply admitted the shortfall in achievements under coverage of habitations under NRDWP during 2013-14 in 13 States. They stated that the reasons for the shortfall in coverage against the targets given are State specific.

2.31 When asked to clarify further, the Ministry of Drinking Water and Sanitation submitted that in the States of Kerala (NRDWP), Meghalaya (NRDWP) and Punjab (World Bank funded project), the schemes taken up for rural water supply are such which have long gestation period for commissioning. Therefore, it takes more time for achieving the coverage targets and hence low percentage of coverage of habitations shown on the IMIS.

2.32 In Sikkim, in general, Spring Top Based Water Supply Schemes are taken up in rural habitations. Therefore, the Ministry expects that data entry might not have been done by the State Government and accordingly the State Government has been asked to update status of Piped Water Supply coverage into online IMIS of the Ministry urgently.

Chapter III

Rural Drinking Water Supply and Challenges

(i) Piped Drinking Water Supply

On the question of piped drinking water supply in rural areas, the MDWS informed the Committee during evidence as under:

"they propose to ensure at least 50 % of rural households with Piped Water Supply with at least 35 % with household connections and remaining by hand pumps or others by 2017. They also propose to ensure at least 90 % of rural households with Piped Water Supply with at least 80 % with household connections and remaining by hand pumps or others by the year 2022."

3.2 When asked about the existing percentage of habitations having access of piped water in the country, a representative of MDWS informed the Committee:

"We have provided piped water supply to 47 per cent of habitations. Only 15 percent people have access to piped water at their homes."

3.3 The Committee asked for a list of habitations which have access of piped water supply. In response to that, the Ministry of Drinking Water and Sanitation in their Post Evidence reply stated that they monitor the access of Piped Water Supply at the State Level. The concerned States monitor the coverage of Piped Water Supply Schemes at the district level. The State-wise information with respect to rural population coverage with Piped Water Supply (in percentage) with respect to total rural population is at **Appendix- III**.

3.4 On the Committee's concern over the quality of pipe being used for supply of water and the question of the Pipe Policy, details of quality and type of pipes used for providing piped water supply, a representative of MDWS during evidence deposed as follows:

"We have asked all the States to formulate their State pipe policy. We have provided them the general broad guidelines from National Pipe Policy. But Government of India do not decide whether you have to use PVC pipe or G.I. pipe. Under the Chairmanship of Secretary, there is a State Committee of Chief Engineers and the Committee decides which type of pipes are to be used."

3.5 The MDWS further submitted that they have issued detailed NRDWP guidelines – 2013 (updated) to implement piped water supply schemes and safe drinking water in habitations. Further, the Ministry has also issued a manual for preparation of Detailed Project Report (DPR) of piped water supply schemes wherein the State Governments were also requested that they should have “State Pipe Policy” for selection and use of pipe materials, etc. The Ministry have also asked the States for formulation of state pipe policy separately and as a result, a number of States have published such policy document like Tamil Nadu, Kerala, Rajasthan, Haryana, Uttar Pradesh, etc.

(ii) **Over Exploitation**

3.6 During the evidence, the Committee desired to know the details of blocks where over exploitation has been reported and where funds have been allocated under sustainability for setting up of corrective measures for water recharge. A representative of MDWS stated:

"As far as 10 per cent sustainability is concerned, there are areas where there is less than 600 mm of rain and there is no river nearby, so we use different type of water conservation measures like check dams and percolation dams to conserve rain water. This is called sustainability. For this we can spend maximum ₹1100 crores out of ₹11000 which is not a huge amount. CGWB (Central Ground Water Board) provides data about the availability of water in a particular area. National Remote Sensing Centre Hyderabad have prepared a Hydro-geomorphological map for whole country and we have provided funds for this. On the basis of this map, we can tell about the ground water layer and water condition in a particular area."

3.7 A list of number of blocks/mandals/talukas in which over exploitation has been reported during 2010-11 may be seen at **Appendix IV**. The Ministry has also furnished a list of Water Stressed Blocks of the country which is at **Appendix V**."

3.8 In response to a post evidence query of the Committee, about the allocation made for sustainability for such blocks/areas, the Ministry stated that States can utilize up to 10 % of Programme Fund for sustainability. It is upto the State to

decide where these sustainability funds have to be utilized based upon local needs.

3.9 A statement showing State-wise details of funds allocated and utilized during 2011-12, 2012-13 and 2013-14 for sustainability as furnished by the MDWS is at **Appendix VI**.

(iii) Funding Pattern and Components of the NRDWP

3.10 The Ministry during evidence submitted the following Components of the NRDWP;

- 47 % for Coverage
- 20% for Water Quality (WQ)
- 15% for Operation & Maintenance (O&M)
- 10% for Sustainability
- 5% for Support
- 3% for WQ Monitoring & Surveillance

3.11 The Ministry informed the Committee that in the beginning and before the above allocation, 2% of the total NRDWP fund was set aside as Natural Calamity Fund to meet emergent situations in the country.

3.12 The Committee further desired to know the funding pattern under NRDWP particularly for backward States which do not have funds and resources for augmentation of drinking water as there are many districts where water scarcity exists or there is no water. A representative of MDWS informed the Committee that for Northeast (States) and Jammu & Kashmir the ratio of funding is 90:10 between Central and State and for remaining states it is 50 : 50.

(iv) Water Quality Monitoring & Laboratories

3.13 While on the aspect of water quality monitoring a representative of MDWS submitted:

"We make a provision of 3 per cent money for water quality monitoring. We have nearly 2300 district and State labs throughout the country".

3.14 When queried as to whether these funds were given to the Central Ground Water Board, he submitted:

"We provide three per cent of funds to the States for testing the water quality."

3.15 Queried further as to which Department was mandated with the responsibility of water quality testing he submitted:

"The labs are funded by us. We monitor them, but State Public Health Engineering Departments are operating them."

3.15(a) The Committee during the course of the examination noted that some Departments and some Ministries are also funding for same activity and resultantly there has been a duplication of work by various agencies.

3.15(b) In fact, Secretary of MDWS admitted during the Oral Evidence:

"We have to examine it because various bodies are entrusted under various Acts. As such CPCB and State Pollution Control Board are working according to their Acts. Their scope for giving clearance is also different. It is for us to make it essential for drinking water."

3.16 While clarifying further, a representative of MDWS informed the Committee:

"We had tested about 30 lakhs of samples in 2300 labs last year. We have about 58 lakhs of drinking water sources of hand pumps water and the water being supplied from rivers. We test half of these sources regularly. Several drinking water sources are contaminated, there is bacteriological contamination during rainy season. There is open defecation and a lot of garbage is lying which contaminates water. Bacteriological contamination causes diseases like diarrhea. Therefore, we have to work on very large scale. Whatever Hon'ble Secretary is telling, perhaps it may be on low scale but we have to do in detail and in every village. Government of India provide funds for setting up labs wherever necessary. There is a big lab at State level and it is pre-determined how many equipments, chemists and lab technicians will be provided in these labs."

3.17 The Committee further desired to know how MDWS monitors the functioning of these labs, a representative of MDWS informed:

"we have 60 lakh water sources in the country. It is a huge number and this is handled directly by the States. We fund it from the Centre to the States because water is a State subject.

We have asked the States to test a particular number of samples before and after the monsoon, because parameters get changed at that time and we get to know about the diseases, contamination and chemicals. Therefore, we have provided a protocol to the State Governments and they are following it. We have also provided them field testing kits which are to be handed over to the village panchayats. We go to villages to check whether these kit bags have been distributed and whether these are being used or not. We got a mixed response, at some places these are being used and at some places these are lying unused. The kit is kept in small leather bag. These kits are used to test P.H. value, presence of couforms, Fluoride and hardness of water, these are all small tests. We have given directions that wherever these things are found, suppose fluoride is found in any hand pump, then it should be red-crossed. But here also we got mixed response. Some States give better response, some States do not put red mark. As a result, people use water of the pumps without red mark. While the water of such pumps is not potable, we can use it for other purposes. As far as labs are concerned. Two months back I had made a visit to Kaithal, Haryana and other places and I inspected labs and I found that equipments are there but we do not have World class equipments because these are costly and training is also required to use them.

One more thing in this connection is that the chemists hired by the States are not in adequate number and secondly, there salary is meagre i.e. they get Rs. 8000 to Rs. 12000 only. We cannot hire qualified chemists in such a low salary and if we get them, they do not stay."

A statement showing status of Water Quality testing in District/Sub-Divisional Laboratories during 2013-14 has been given at **Appendix VII.**"

3.18 To a pointed question about the remedial measures undertaken in Water Quality Monitoring and Surveillance Programme (WQMS) to tackle problems of arsenic, fluoride and iron contamination of ground water, the Ministry in a written reply informed the Committee that it is not that Water Quality Monitoring and Surveillance started from 2011-12. In fact, the national level funding came into

vogue with the erstwhile Accelerated Rural Water Supply Programme in 1972. However, since 1986 when the Rajiv Gandhi National Drinking Water Mission was formed, the unit cost of these Labs at that period of time was Rs.1.86 lakh. Subsequently, this unit cost was increased to Rs.4.00 lakhs. It came to the notice of the Central Government that though Laboratories were being established, trained chemists, laboratory assistants are not made available by the State Governments. Further, there was no proper mechanism of procuring desired instrumentation, chemicals, glassware, hiring manpower, etc. In order to bring in more focus on this subject, in 2013 February, the Uniform Drinking Water Quality Monitoring Protocol was prepared and distributed to all the States which covers all the above mentioned aspects. This Protocol also covers surveillance activities in the form of conducting sanitary surveys which would give an indication of local bacteriological contamination. Therefore, the Ministry is in continuous quest of improving drinking water quality monitoring and surveillance activities at regular intervals of time.

3.19 In response to a query as to how water quality testing in laboratories is being undertaken in the absence of chemists and bacteriologists in States like Haryana, Madhya Pradesh, Odisha, Rajasthan, Tamil Nadu, Uttar Pradesh, Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Sikkim and in UTs viz., Lakshadweep and Puducherry, the Ministry stated that in Arunachal Pradesh, there are 19 lab assistants and 3 others (helpers), who are conducting water quality testing. States of Haryana, Madhya Pradesh, Odisha, Rajasthan, Tamil Nadu, Uttar Pradesh, Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Sikkim, Lakshadweep and Puducherry do not have bacteriologists and chemists and lab assistants are performing both type of testing- chemical and bacteriological in laboratories. Further, the 3% Water Quality Monitoring & Surveillance funds inter-alia include wages for the technical manpower in laboratories, provision for procurement of field test kits, refills for chemical testing and H₂S strips/vials for bacteriological testing to all Gram Panchayats. However, all States have been

asked to follow the Uniform Drinking Water Quality Monitoring Protocol which is published and distributed to all States till the district level officials.

3.20 Concerned over the poor performance of laboratories during 2013-14, the Committee sought to know the reasons for the same. In this context the Ministry submitted that the target of 66,24,000 samples to be tested, is the ideal and ultimate target indicated by the Ministry to all States (@ 3,000 samples per lab per year) when all laboratories are fully functional and regularly upgrade their facilities. In 2013-14, States have updated entries in the IMIS and 30,90,076 water samples were reported to have been tested. 3% WQMS funds are provided to the States for the purpose of constant upgradation and for creating new sub-divisional and water quality testing laboratories. However, States have been advised to improve the overall number of water samples to be tested. Because of constant monitoring by the Ministry, the number of the samples tested in laboratories show an increasing trend since 2009-10 till 2013-14 as per the information provided by the States on the online IMIS as indicated in the Table below:

Year	Number of samples tested in Rural India
2009-10	3,81,436
2010-11	10,32,726
2011-12	10,33,454
2012-13	22,36,992
2013-14	30,90,076

3.21 During the course of examination of the subject, the Committee were apprised that an International Centre for Drinking Water Quality (ICDWQ) is being set up at Kolkata. In response of a query as to how it will be different from the existing R&D organizations doing research work in drinking water quality related problems, the Ministry in a written reply stated that the existing R&D Centres across the country deal only on R&D in isolation or at the maximum pilot in few places in the field. There is no holistic approach to water quality problems starting from surveillance activities to monitoring water quality to linking up every parameter with human metabolism. Further, there is a felt need to disseminate such

information not only across the country but also globally. Therefore, the idea of International Centre for Drinking Water Quality (ICDWQ) was conceived for.

- (1) The Ministry of Drinking Water and Sanitation, Government of India have established an International Centre for Drinking Water Quality(ICDWQ) as a world class autonomous institution (registered as Society under the Societies Registration Act, 1860) fully funded and administered under overall guidance of the Ministry of Drinking Water and Sanitation. The new campus is proposed to be constructed over a land of 8.72 acre at Joka, Diamond Harbour Road, Kolkata.
- (2) The main areas of operation of ICDWQ will be Research & Development, Technical Guidance, Training, Validation & Monitoring, Compilation & Dissemination, Networking, Formulating of Policy and Action Plans for the Ministry and Academic programmes.
- (3) The R&D laboratory will have six departments viz., Engineering Unit, Geo-hydrological Unit, Health & Epidemiology Unit, Agricultural Study Unit, Water Quality, Sediment Chemistry and Eco-Toxicological Unit and GIS & Remote Sensing Unit.
- (4) The principal components of ICDWQ shall include exterior and interior planning, design and commissioning of the following:
 - Administrative Building
 - Research & Development Centre
 - Training Centre-cum-Hostel
 - Staff Quarters
 - Landscaping and Horticulture
 - Ornamental Outer Fence Design
 - Road Network, Parking Space Design, Water Supply, Sewerage, Storm-Water, Electricity network within the site as well as inside all buildings.
 - Oxidation Pond / ditch for waste-water treatment within the campus and its distribution for uses other than drinking and cooking purposes.
 - Commissioning of solar panels on all the buildings except staff quarters.

The anticipated date of commencement of the Centre in its new campus as per Cabinet Note is during 2018-19 i.e., in the Thirteenth Plan period. In the mean time, steps are being taken to start the Centre in a rented building.

3.22 The Committee also desired to know the findings and action being taken on the reports of independent evaluation studies to evaluate the performance of Integrated Management Information System, the water quality monitoring and surveillance programme, the sustainability programme and Hydro-Geo Morphological (HGM) Maps. The Ministry in their written reply stated that 'the study reports of IMIS, WQM&S and Sustainability Structures are yet to be finalized. However, the study report of HGM maps is in final draft stage and the same has been forwarded to National Remote Sensing Centre (NRSC), Hyderabad for their comments / concurrence.'

3.23 About Hydro-Geo-Morphological (HGM) Maps for identifying correct sites for production wells and sustainability structures for artificial ground water recharge, the Ministry informed as under:

(i) A total of 4,898 HGM maps including 20 maps of Andaman and Nicobar Islands and 3 maps of Lakshadweep were completed by the end of August 2014. The slight delay of two months for these Islands was because of very difficult terrain for which ground truthing was essential to upgrade the satellite and other GIS layers.

(ii) The maps have been prepared in a very simple manner following the colour coding of rainbow i.e., VIBGYOR. The violet colour indicates the highest amount of ground water availability and decreases to no ground water availability in red region. Green colour is the indication for critical stage, after which ground water availability becomes lower and lower. Similarly hashing pattern is also introduced with horizontal hashing indicating ground water availability within 30 metres (shallow), inclined hashing indicating ground water availability between 30 to 80 metres (medium), and vertical hashing pattern indicating availability of ground water at depths (80 metres and above) (deep). Over and above, a tabular form is given in the map indicating approximate yields and requirement of type of sustainability structure to be adopted is indicated. Over and above, dykes and faults both confirmed and unconfirmed have been clearly indicated wherein drilling on this may yield better prospects of ground water subject to geo-physical studies. Therefore, with small amount of training, the HGM maps can also be used by laymen.

(iii) The HGM maps are in 1:50000 scale in tandem with Survey of India toposheet. One centimeter on the map indicates 500 metres or half kilometer on the field. One can safely arrive at the area of interest

either for locating a sustainability structure or a production well within 500 metres and then subsequently conduct geophysical studies to arrive at the exact location. Therefore, geophysical studies are contextual in nature and follows after reading HGM maps.

3.24 In response to a query regarding status of the proposal for providing community water purification plants in fluoride, arsenic, uranium and other heavy/toxic metals and pesticide / fertilizer affected rural habitations in the country for providing safe drinking water at a cost of Rs.3,600 crore, the Ministry of Drinking Water and Sanitation in their written reply stated that they have decided to subsume Jalshuddhi programme of providing Community Water Purification Plants in remaining fluoride, arsenic, uranium and other heavy/toxic metals and pesticide / fertilizer affected rural habitations in the country into the existing National Rural Drinking Water Programme (NRDWP) empowering the States to choose technology and accord approvals in State Level Sanctioning Committee (SLSSC). However, a basket of suggestive technologies would be provided to the States for which a High Level Technical Committee headed by Professor (Dr.) R.A. Mashelkar, ex-Director General, CSIR and currently National Research Fellow working in National Chemical Laboratory, Pune has been constituted.

(v) Research & Development Projects

3.25 While examining the importance of R&D Projects for improving the water quality, the Committee desired to know the details of funds provided, expenditure incurred and the outcome of R&D projects in resolving water quality problems. The MDWS in their written reply informed the Committee that as per latest data available on the Integrated Management Information System (IMIS) of the Ministry 136 projects have been completed. Out of the above, 65 R&D Projects were reviewed recently. Against 136 completed projects, the Ministry have released Rs.859.47 lakh. Duration of R & D projects is normally for two to three years. The completed R & D projects are mostly application based projects and very old. Out of the projects reviewed, a couple of them have been recommended for implementation at site / in the field. Further, with regard to another project in West Bengal, as the Principal Investigator had installed four Arsenic removal plants,

after review the experts have asked for obtaining a performance report from PHED, West Bengal before carrying out a pilot study. Similarly, in the case of another project, after the review, feedback from field through State Government of Uttarakhand on the performance of Slow Sand Filtration constructed in the village Chhatti in Chamba block of Tehri Garhwal District has been sought.

(vi) Externally Funded Projects

3.26 Regarding the particulars, terms and conditions and status of drinking water projects financed from other domestic and external sources in various States, the MDWS in their written reply stated that they do not maintain data regarding the proposals to finance drinking water projects which are undertaken by the different State / UT governments out of their own resources other than the ones being undertaken under NRDWP. The details of some of the major projects/schemes of high value external aid being undertaken by the States/UTs are as given at **Appendix-VIII.**

PART - II

Observations/Recommendations

Rural Drinking Water Programme

General

The Committee note that water is the primordial source of life on earth and is virtually the umbilical cord for all life forms. Humankind since time immemorial has venerated it as a symbol of divinity and purity. The scriptures including the Vedas expound the virtues and importance of water and its sources, viz. rains, rivers, streams and other bodies and hail water as 'ambrosia', 'nourisher of life' and 'bestower of bliss'. Article 21 of the Constitution proclaims 'Protection to Life' implicitly taking care of these basic needs without which life is impossible. Besides, Article 47, enshrining one of the Directive Principles of State Policy, enjoins upon the State the duty to raise the level of nutrition and the standard of living and to improve public health. The Committee note that even before the Constitution was adopted, enacted and given to 'We, the people', the Environment Hygiene Committee (Bhor Committee) had recommended in 1949 safe water supply to cover 90 percent of India's population in a time frame of 40 years i.e. by 1989. The Committee, however, note that after considerable delay the Government could announce on 1 April, 2011 that no identified habitation remained uncovered. The Committee's examination shows in the succeeding

paragraphs that the provision of safe and adequate drinking water to the rural people still remains a daunting task.

Coverage of Rural Habitations under NRDWP

2. India has been facing chronic problem of drinking water shortage, stress and scarcity in different parts due to its vast and varied geographical and topographical conditions. Though the country is bestowed with sources of surface water in abundance, most of it is contaminated or allowed to go waste in the sea. The situation, the Committee note, has been further aggravated by the competing pressures of the eco-systems, the agriculture, industry and energy sectors. Although rural drinking water supply is a State subject and has been included in the Eleventh Schedule of the Constitution amongst the subjects that may be entrusted to Panchayats by the State, the Committee note that having regard to the magnitude of the problem, the Union Government pro-actively supplements and coordinates the efforts of the State Governments. To tackle the problem of safe drinking water in the rural areas of the country, the first water supply and sanitation programme was introduced in social sector in 1954. Thereafter, a major intervention of Government of India started in 1972-73 through the Accelerated Rural Water Supply Programme (ARWSP) to accelerate the coverage of drinking water. ARWSP was modified and renamed as the 'National Rural Drinking Water Programme' (NRDWP) and a separate Ministry of Drinking Water and Sanitation was set up in the year 2011.

While examining the Outcome Budget of the Ministry of Drinking Water and Sanitation, the Committee observe that despite a massive investment of more than ₹1,64,700 crore in the rural water supply sector by the Central and State Governments since the first Five Year Plan, only 75% of the total rural habitations have been covered with adequate potable water. As per the National Sample Survey Organisation (NSSO), upto December 2012 only 88.5% of rural households had access to drinking water from protected sources whereas 11.5% households were yet to have access to safe drinking water. However, according to the Ministry after adding 368,463 rural habitations which are partially covered, the total percentage of habitations which have access to safe drinking water reaches 95.34% as per the data entered by States as on 1 April, 2014 on Integrated Management Information System (IMIS).

The Committee further note that the Environment Hygiene Committee (Bhor Committee) had in 1949 recommended a very reasonable and achievable target of providing drinking water to 90% of the population of the country in 40 years i.e. by 1989. The Committee are deeply dismayed that even after 67 years of independence, the basic objective of a Welfare State to provide adequate and safe drinking water to all its citizenry specially those living in rural/remote/hard areas whose economic conditions are compelling is yet to be achieved despite infusion of a massive investment of ₹ 1.65 lakh crore. The Committee, therefore, recommend that the Government fix the norms of potable water availability for semi urban and rural areas and the

timeline by which the envisaged quality and quantity of potable water would be made available to all rural parts and regions of the country.

Drinking Water Supply Programmes

3. The Committee deplore that the Government merely kept on renaming the programme(s) meant for drinking water supply in rural areas and allocating resources without addressing responsibility and accountability issues so vital for the success of these programme(s). The examination by the Committee has established beyond any manner of doubt that the continued failure of the successive schemes for provision of drinking water to rural areas is attributable to lack of proper planning, coordination and control on the part of the Union Government. The Committee are of the considered view that mobilisation of resources, their allocation, release to States and sustained monitoring are an integral part of any developmental architecture. More so, a scheme of such a magnitude requires continuous monitoring, constant supervision and coordination by the Union Government as the implementing agencies belong to the State Governments. It is beyond comprehension as to how the Union Government, the major contributor towards funding of all the schemes pertaining to drinking water in rural areas, remained oblivious to the stark ground situation. This indifference of the Government is evident from the way the Integrated Management Information System data is being got verified. The Committee note that an independent evaluation study was commissioned by the Union Government

for the purpose in 2011-12 but there is no trace of the report more than three years later. Keeping in view the dismal potable water supply scenario, the depleting water table and the rising dark blocks, acute power shortages affecting water supply and the unreliable system of collecting and monitoring the vital data regarding the drinking water supply programme, the Committee recommend that a complete reorientation of the role and strategy of the Union Government is essential to make the scheme a success. Further, a system of concurrent and continuous monitoring and evaluation needs to be put in place without any delay and the Committee be apprised of the same within three months.

Availability of Water

4. The Committee note that no holistic and comprehensive mapping of all sources of water in the country has been done. Further, there is sheer want of effective coordination between the Union Ministries *inter se* and the Union and the State Governments and there is no vision document on water availability and usages, the Committee, therefore, recommend that:

- (i) A comprehensive water mapping of all sources of water be done to facilitate rational allocation and distribution of water to agriculture, industry, drinking water and other sectors in a well-prioritized manner;
- (ii) A close watch be kept on the allocation, distribution and usage of water by the competing sectors so that concurrent and

effective remedial measures could be taken in any situation without any loss of time;

(iii) The Ministry of Water Resources, River Development and Ganga Rejuvenation should make this a well-coordinated and continuous affair on the lines of 'State of Agriculture in India' Report being annually brought out by the Ministry of Agriculture (Department of Agriculture and Cooperation) and bring out a Report on 'State of Water in India' and in like manner present it to Parliament every year during the Budget Session;

(iv) Further, the Government should also come up with a 'White Paper' on their efforts made so far in the light of recommendations made by Bhor Committee, 1949 so that not only the problematic areas are clearly identified and understood but also the hugely belated course correction is put in place at once to ensure universal availability and accessibility of drinking water in rural areas at least by the end of Twelfth Plan.

(v) The Government should come up with a Vision Document on water availability and its usage in various sectors so that the much needed balance in the demands of various competing sectors is restored and maintained; and

(vi) The independent evaluation study of the data entered into IMIS by the States which is lingering on since 2012-13 be completed without any further delay. The Committee would like to be apprised of its findings and action taken thereupon by the Union Government within three months of the presentation of this Report.

Slippage of covered habitations and sustainability of water sources

5. The Committee note that as per the IMIS data entered by the States as on 1 April, 2014, out of the 16,96,664 rural habitations in the country 12,49,695 (73.6%) habitations are fully covered (on the basis of 40 lpcd norm), 3,68,463 (21.17%) are partially covered and 78,506 (4.6%) are quality affected. They further note that the number of covered habitations slipping back to partially covered/quality affected habitation status is quite alarming as on an average approximately 1.4 lakh habitations per year have slipped back during the last seven years or so. The Ministry has attributed reasons for this slippage to over dependence of rural water supply schemes on ground water, indiscriminate extraction of ground water for irrigation, uncontrolled pollution of surface water, erratic pattern of rainfall, natural calamities and erratic/non-availability of power, etc. The Committee observe that upto 67% of the allocation to States under NRDWP are earmarked for covering water quality affected habitations. Apart from this, from the year 2012, 5% of allocation at the national level is provided to States having chemical contamination as well as to States with high incidence of Japanese Encephalitis and Acute Encephalitis Syndrome cases. Similarly, 10% of the funds under NRDWP are provided to States on 100% Central share basis to be spent on ensuring sustainability of drinking water sources by constructing structures for recharge of ground water. In addition, States are also provided 15% funds under NRDWP for Operation & Maintenance activities to ensure sustainable service delivery and the Ministry has been

asking the States Governments to seek participation of local Panchayats so that schemes once installed do not slip back in terms of service delivery.

The Committee further find that the Ministry of Drinking Water and Sanitation has written to States to identify the surface water reservoirs in their respective States for sourcing water for new piped water supply schemes. The Ministry has also written to the Union Ministry of Water Resources, River Development and Ganga Rejuvenation to allow/reserve a certain percentage of water from these reservoirs for being used in drinking water supply schemes. However, surprisingly, beyond writing the letters, the nodal Ministry did not care to conduct any study of the recurring phenomenon of significant slip backs. The Committee further observe that only a few States have shown their interest in creating sustainability structures and a continuous decline in total sustainability structures has been noticed 29217 in 2011-12 vis-à-vis that 36870 of 2010-11 and 25057 in 2013-14 vis-à-vis that 48281 of 2012-13. Apparently, this shows either the States have not been fully sensitized to the importance and pivotal role of the sustainability structure or there are some inherent bottlenecks or constraints in creation of these structures. Having regard to the fact that sustainability structures are a sine qua non for ensuring universal availability of drinking water in the rural areas, the Committee feel strongly that it is incumbent upon the Ministry to take immediate corrective measures so that the creation of sustainability structures gathers the requisite momentum without any further loss of time. The Committee would like to be apprised of the specific

interventions of the Ministry in this regard at the earliest but positively within three months of the presentation of this Report.

Sustainability of Water Sources

6. Besides, creation of sustainability structure, the sustainability of water sources has been a serious challenge and impediment in view of the unabated and indiscriminate use of underground water and unchecked huge release of water contaminating effluents therein including surface water. The examination by the Committee reveals that adequate concerted and conducive efforts have not been made by the Government to tackle this gargantuan problem. The Committee, therefore, strongly recommend that the reasons for pollution of both surface as well as underground water, depletion in level of ground water in various parts of the country including the Tea Gardens in Assam, and rising incidence of natural calamities leading to slip-back problem of already covered habitations, etc need to be revisited on priority basis and remedial measures initiated with full fidelity and alacrity. Further, the Committee would like to be apprised of the steps being taken to recharge ground water, to rejuvenate water bodies through check dams and other methods also taking into account the highly reliable old water systems which were created, charged and also interlinked. The Committee would like to be apprised of the same within six months of the presentation of this Report.

Per Capita Availability of Safe Drinking Water

7. The Committee note that the Ministry of Drinking Water and Sanitation has prepared a Strategic Plan (2011-2022) which stipulates to cover 50% of all rural households with piped water supply and 35% with household tap connections upto 2017. By 2022 the goal is to cover 90% rural households with piped water supply and 80% with household tap connection to ensure safe drinking water @70 liter per capita per day (lpcd) instead of 40 lpcd being provided for the last four decades. The NRDWP Guidelines, 2013 has fixed an interim norm of 55 lpcd to meet the water requirement under this Strategic Plan. However, the Secretary Ministry of Drinking Water and Sanitation deposed before the Committee that in some urban areas the limit of availability of this water per person has been found in the range of 100-135 lpcd. They further notice that the Ministry has already issued NRDWP Guidelines-2013 (updated) to implement piped water supply schemes and accordingly issued a manual for preparation of Detailed Project Report of piped water supply schemes alongwith the request to formulate their own 'State Pipe Policy'. As a result, the States like Tamil Nadu, Kerala, Rajasthan, Haryana, Uttar Pradesh, etc. have prepared their own Pipe Policy and published the same. Apart from this, the Committee also note that piped water supply has been ensured upto 47% of the total rural households including 15% through household tap connections. The Committee, therefore, urge the MDWS to pursue vigorously with the remaining States who have not formulated and published their own Pipe

Policy / drinking water policy and to expedite the same and keep the Union Government apprised. The Government also need to ensure that each household gets assured and safe supply of 70 liter water per capita per day (70 IPCD). Further, any consumption beyond the permissible ceiling must be made prohibitive so as to discourage extravagant usage of water. In their considered view, the Committee feel that there is an imperative need for enunciating a National Policy on water usage and water charges.

Focus and Objectives of XII Plan

8. The Committee observe that the Strategic Plan (2011-2022) of the Ministry of Drinking Water and Sanitation ensures that every rural person in the country will have access to 70 lpcd within their household premises or at a horizontal or vertical distance of not more than 50 meters from the household without barriers of social and financial discrimination. However, subsequently the Twelfth Five Year Plan (2012-2017) envisaged 55 lpcd from the present limit of 40 lpcd. The Committee are, however, apprehensive over the compatibility of the targets of Strategic Plan (2011-2022) chalked out by the nodal Ministry and the XII Plan (2012-2017).

Having examined the drinking water perspective from all dimensions, the Committee observe that while water sources and Water Policy are in the exclusive domain of the Ministry of Water Resources, the drinking water aspect in respect of rural areas has been assigned to the Ministry of Drinking Water and Sanitation which has no control over water sources and has no

independent policy on drinking water for rural areas. The Committee, therefore, recommend establishment of a permanent standing machinery for effective coordination and cooperation between the Ministry of Water Resource and the Ministry of Drinking Water and Sanitation for all matters related to Rural Drinking Water Supply. Further, the Committee would also like to be apprised as to how the target of piped water supply would be met when the Ministry of Drinking Water and Sanitation has first and foremost, to ensure supply of adequate water from the available water sources which are being exclusively administered by the Ministry of Water Resources and fall within the legislative jurisdiction of respective State(s).

Jurisdictional and related matters

9. The Committee have also taken note of the competing jurisdictions of various ministries/departments on water related matters, the performance of the Ministry of Drinking Water and Sanitation, the mission mode nature and the time bound implementation schedule of the scheme being handled by the Ministry, the enhanced devolution of funds to the States by the Fourteenth Finance Commission and the consequent effect on the role and responsibility of the Ministry, the human resources shortage besetting the Ministry and affecting its effective functioning. The Committee have also carefully examined the mandate of the Ministry, their intrinsic linkage with the mandate of the Ministry of Rural Development., the Ministry of Water Resources, River Development and Ganga Rejuvenation and the Ministry of

Human Resource Development. The Committee feel that in the extant scenario, the Government ought to give a serious consideration to retaining the Ministry as a standalone entity or bring the Ministry again within the more cohesive ambit of the Ministry of Rural Development. The Committee would like to be apprised of the considered views of the Government in the matter within three months of the presentation of this Report to Lok Sabha.

Water Quality Testing Infrastructure

10. The Committee note that out of the aggregate 16,96,664 rural habitations, 78,506 habitations (4.62%) are water quality affected. However, there are conflicting reports regarding the exact numbers as the NSSO survey conducted upto July 2012 shows that 88.5% of total rural habitations have access of drinking water from protected sources and the remaining 11.5% are yet to have access of drinking water from protected sources. This Committee have extensively dealt with arsenic contamination in their First Report on Occurrence of High Arsenic Content in Ground Water presented to Lok Sabha on 11 December, 2014. The Committee further note that the achievements under coverage of quality affected habitations has been 68% and 76% during the year 2012-13 and 2013-14 respectively. While the corrective measures are obviously sluggish, the Committee observe that the identification machinery for monitoring of water quality testing infrastructure is also in a pathetic state, thereby, raising a big question mark on the veracity of the statistics collected pertaining to water quality affected areas

and the efforts being made by the Government to address the situation. The Committee are ill at ease to find that there are approximately 2300 labs in the country to check the drinking water quality of about 58 lakh sources of water (out of which 70% are hand pumps) in the Country. Out of these nearly half (30 lakhs) of the water sources are tested regularly, though, even by the admission of the Ministry ideally 66,24,000 samples should be tested annually @ 3000 sample per lab per year. Furthermore, this very less number of laboratories is compounded by the low salary (between ₹ 8000 and ₹ 12000) being paid to the personnel manning them. Thus, there is always a perennial shortage of manpower in these laboratories. The equipments available in these laboratories, as per the Ministry's own admission is not of international standards for want of adequate funds and training to the staff.

The Committee are dismayed over the fact that a paltry 3% of the NRDWP funds are allocated for the component of WQ Monitoring and Surveillance. The real issue in the opinion of the Committee is the paltry 3% funds that are allocated under NRDWP for setting up water quality monitoring and surveillance mechanism including wages for technical manpower in laboratories, field test kits, refills for chemical testing, etc. Given the immense significance of testing and quality control of drinking water, the Committee strongly recommend:

(i) that the amount allocated for Water Quality Monitoring and Surveillance may be augmented to not less than 5% of NRDWP funds;

(ii) the International Centre for Drinking Water Quality (ICDWQ) which has been recently opened at Kolkata be made fully functional without any further delay;

(iii) additional water quality laboratories of international standards may be established across the country as per necessity or the existing ones be upgraded at strategic locations within the shortest timeframe. These regional laboratories may be networked with the Centre at Kolkata which apart from testing purposes may also be utilized for training and capacity building of the technical personnel;

(iv) a simple test kit be developed expeditiously by the CSIR which can be used by the common people easily to test the drinking water quality, these kits may be distributed to begin with free of charge in the fluoride affected tribal belts; and

(v) considering the fact that the water quality of surface and ground water sources available in the country is being monitored by different organisations / agencies under different administrative Departments /Ministries leading to avoidable overlapping, duplication of efforts and wasteful expenditure, a single body/agency/authority ought to be

assigned the exclusive task to address the different aspects related to water supply quality, efficiency and economy.

Achievement under NRDWP

11. The Committee note that the utilization of funds earmarked for NRDWP during the Eleventh Plan and the first two years of Twelfth Plan viz 2012-13 and 2013-14 was almost cent per cent. During the Eleventh Plan, the RE allocation was ₹ 39199 crore and the actual expenditure was ₹ 39210 crore. The Committee further note that during the year 2008-09, against a target of providing drinking water to 217898 habitations the achievement was 152990, that is 70 odd per cent. The allocation of Rs. 7298.78 crore was almost utilized for this 70% achievement. In the year 2009-10, out of 158589 habitations to be covered, 148879 (93.88%) habitations were covered, involving the actual expenditure of Rs. 7989.72 crore. In the year 2010-11 against a target of 135000, the achievement was 88.45% at 119401 habitations. To achieve this, out of the BE/RE Rs. 9000 crore, Rs. 8986.74 crore were actually spent. During the year 2011-12 against an aggregate target of 145169 habitations 138367 habitations (95.31%) were covered. The amount spent during the year was Rs.8493.15 crore from RE amount of Rs. 8500 crore. During 2012-13 and 2013-14 against the RE allocation of ₹ 10500 crore and ₹ 9700 crore, sums of ₹ 10489.05 crore and ₹ 9691.29 crore respectively were actually incurred. Inexplicably, however, the physical achievements have not been commensurate with the expenditure incurred.

During 2012-13, against a physical target of 91750 partially covered habitations the achievement was merely 77388 habitations which is approximately 84% of the targets fixed. During 2013-14, the figures under this category were 53657 (target) and 51823 (achievement) respectively. For the quality affected habitations against a target of 28642, only 19402 i.e. just 68% habitations were covered in 2012-13. In 2013-14, against a target of 21771 only 16649 i.e. 76% habitations were covered. As regards habitations with piped water supply against the target of 63297 habitations, only 52021 i.e. 82% habitations were covered. During 2013-14 against 64342 habitations 56384 habitations i.e. 88% were covered under this category. The Committee are distressed to note the under achievement in physical target vis-a-vis the expenditure incurred. They, therefore, desire that the reasons for this mismatch may be studied indepth and corrective measures be put in place without any further loss of time. The Committee would also like to be apprised of the outcome of such a study and also the measures initiated within three months of presentation of this Report to Lok Sabha.

Externally Funded Projects

12. The Committee were apprised that the Government do not maintain the data regarding the proposals to finance drinking water projects which are undertaken by the different States/UT Governments out of their own resources other than the ones being undertaken under NRDWP. The Committee find this totally unacceptable as any holistic planning in the

subject matter is inconceivable without factoring in the works being done for similar purposes under other schemes and programmes. Apart from this, the Committee also find that eight high value externally aided major projects/ schemes in eleven States have been undertaken by the respective States/UTs. Some of these projects also have sanitation components as well. Notably, the total external funding involved in these projects is 1776.47 million dollars (approx. ₹ 11046 crore) for the period 2006-15 to 2019-2020. The Committee find that a substantial number of villages/habitations have been/are being covered under these externally funded Schemes/Programmes. Taking note of the fact that there is no central data as regards the drinking water projects undertaken by the States without the aid of NRDWP funds and the high value externally aided drinking water projects executed by eleven States, the Committee recommend that

- (i) a central data base must be maintained of all drinking water projects at district and State level, year-wise; and
- (ii) a comprehensive statement be submitted to the Committee within three months of the presentation of this Report indicating the achievements/targets of the externally aided Schemes/Projects, State-wise and the physical targets and achievements and the financial commitments of the Union Government and the concerned State Government (s) under their respective Schemes/Projects during the corresponding

period in the areas where these externally funded Schemes/Projects are being implemented.

Progress of World Bank funded projects in the Punjab

13. The Committee also note that under the World Bank funded Punjab Rural Water and Sanitation Project executed between March 2007 and December, 2014 achievements under various components of the Project have exceeded the targets by 35.6% and 57% respectively. The Committee would like to be apprised about the strategy and approach adopted for the execution of the projects leading to substantial over achievements. The Committee would also like to be informed about the exact timelines for various stages of execution in respect of the remaining seven externally aided projects within three months of the presentation of this Report.

14. The sum, up the Committee find that ensuring universal availability of drinking water in rural areas has been a priority area for the successive Governments almost from the time of Independence. Regrettably, however, the achievements over the last six decades are far from commensurate with the huge amount of physical efforts and money (Rs. 1,65,000 crore) spent. The Rural Area Drinking Water Programme has continued under one or the other name for all these years though universal availability of drinking water in many rural areas still remains elusive. Surprisingly, according to the Strategic Plan for rural drinking water for the period 2011-22, the stated interim goal is to cover 50% of rural households with piped water supply by

2017 and 35% of rural households with tap connection and to cover 90% of rural household with proper water supply and 80% with tap connection by 2022. The Committee are startled to observe want of effective coordination between the concerned Union Ministries and the State Governments. That water is a State subject cannot be a tenable ground for absolving the Union Government of its responsibility to provide drinking water with tap connection to every household since citizenship is a Union subject and it is the Fundamental Right of every citizen to live with dignity. The Committee, therefore, recommend that the Government take an early and holistic view of the competing demands on water from industry, agriculture and growing urbanization; the availability of water in the rivers and all water bodies, the need for ensuring minimum and constant flow of water in the rivers; the need for checking all kind of contaminations entering into the water bodies and the ground water; the reasons for shrinking water bodies and depleting ground water table; over exploitation of ground water and rising dark blocks; the need for creating participatory approach among all stakeholders for efficient conservation and management of water including compulsory water harvesting, so as to provide safe and adequate water with tap connection to every household. If felt necessary, the Government may consider to bring an overarching federal law for efficient water conservation, management including distribution of safe and adequate drinking water to every household.

The Committee are sanguine that their Observations and Recommendations in this Report would receive earnest consideration and the Government would take urgent necessary corrective measures to address the shortcomings and failures of the ongoing Programmes so that universalization of adequate drinking water for the entire rural populace is achieved by 2022 as per the stated goal of the Government.

NEW DELHI;
22 April, 2015
Vaisakha 2, 1937 (saka)

DR. MURLI MANOHAR JOSHI
Chairperson,
Committee on Estimates.

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(Appendix - I to VII will be updated in due course)

MINUTES OF THIRD SITTING OF THE COMMITTEE ON ESTIMATES
(2014-15)

The Committee sat on Monday, the 15th September, 2014 from 1500 hrs. to 1705 hrs. in Room No. '53' , Parliament House, New Delhi.

PRESENT

Dr. Murli Manohar Joshi – Chairperson

MEMBERS

2. Shri Sultan Ahmed
3. Shri Kirti Azad
4. Shri Kalyan Banerjee
5. Shri Dileep Singh Bhuria
6. Shri Ashwini Kumar Choubey
7. Shri Ashok Chavan
8. Col. Sonaram Choudhary
9. Shri Ramen Deka
10. Shri Kalikesh N. Singh Deo
11. Shri Sanjay Dhotre
12. Shri P. C. Gaddigoudar
13. Dr. Sanjay Jaiswal
14. Smt. Darshana Vikram Jardosh
15. Smt. Kavitha Kalvakuntla
16. Shri Vinod Khanna
17. Shri K. H. Muniyappa
18. Shri Ravindra Kumar Pandey
19. Shri K. N. Ramachandran
20. Shri Md. Salim
21. Shri Arvind Sawant
22. Shri Kirti Vardhan Singh
23. Shri Rajesh Verma
24. Shri Ram Kripal Yadav
25. Shri Jai Prakash Narayan Yadav

SECRETARIAT

1. Shri A. Louis Martin – Joint Secretary
2. Shri S. Chatterjee – Director
3. Shri Srinivasulu Gunda – Additional Director

4. Shri U. C. Bharadwaj – Deputy Secretary

**REPRESENTATIVES OF THE MINISTRY OF DRINKING WATER AND
SANITATION**

- | | | |
|----|-----------------------|-----------------|
| 1. | Shri Pankaj Jain | Secretary |
| 2. | Smt. Seema Bahuguna | Addl. Secretary |
| 3. | Shri Saraswati Prasad | Joint Secretary |
| 4. | Shri Satyabrata Sahu | Joint Secretary |

2. At the outset, the Chairperson welcomed the representatives of the Ministry of Drinking Water and Sanitation to the sitting of the Committee and drew their attention to Direction 55(1) of 'Directions by the Speaker, Lok Sabha' regarding confidentiality of the proceedings of the Committee.

3. A representative of the Ministry of Drinking Water and Sanitation made a power point presentation regarding "National Rural Drinking Water Programme". The Members of the Committee sought clarifications on various issues related to the subject to which representatives of the Ministry responded. The discussion remained inconclusive.

4. A verbatim record of the proceedings has been kept.

The Committee then adjourned.

MINUTES OF FIFTH SITTING OF THE COMMITTEE ON ESTIMATES
(2014-15)

The Committee sat on Monday, the 22 September, 2014 from 1100 hrs. to 1500 hrs. in Room 53, Parliament House, New Delhi.

PRESENT

Dr. Murli Manohar Joshi – Chairperson

Members

2. Shri Sultan Ahmed
3. Shri Kirti Azad
4. Shri Kalyan Banerjee
5. Shri Dileep Singh Bhuria
6. Shri Ashwini Kumar Choubey
7. Col. Sonaram Choudhary
8. Shri Ramen Deka
9. Shri Kalikesh N. Singh Deo
10. Shri Sanjay Dhotre
11. Shri P.C. Gaddigoudar
12. Smt. Kavitha Kalvakuntla
13. Shri Nalin Kumar Kateel
14. Shri P. Kumar
15. Shri Ravindra Kumar Pandey
16. Shri Arvind Sawant
17. Shri Ram Kripal Yadav
18. Shri Jai Prakash Narayan Yadav

SECRETARIAT

1. Shri A. Louis Martin - Additional Secretary
2. Shri S. Chatterjee - Director
3. Shri Srinivasulu Gunda- Additional Director
4. Shri U.C. Bharadwaj- Deputy Secretary

2. At the outset, the Chairperson welcomed the Members to the sitting of the Committee. Thereafter, the Committee heard the views of each of the following experts on the subjects shown below:-

LIST OF EXPERTS

XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
XXXX	XXXX	XXXX	XXXX	XXXX	XXXX

Experts on the subject ‘Rural Water Supply and Sanitation Programme’

1. Prof. Purnendu Bose- Department of Civil Engineering, IIT Kanpur
2. Shri A. Kalimuthu - Director, Water for People, New Delhi

3. The experts appeared before the Committee one after another. The Chairperson drew the attention of each expert to Direction 55(1) of Directions by Speaker, Lok Sabha regarding confidentially of the proceedings of the Committee. xxxx xxxxx xxxx xxxxx. One of the experts also suggested enactment of a legislation on ‘Drinking water Security’.

4. On the issue of rural water supply and sanitation, the experts referred to the WHO guidelines on improved sanitation, sanitation targets and status viz-a-viz Millennium Development Goals, improvement of rural water supply in the country, etc. The experts also responded to the queries of the Members regarding cheap and low cost toilets, bio-degradation, chemical treatment, etc.

5. In respect of the points, for which the information was not readily available, the experts were asked to furnish written replies at the earliest.

Hearing of experts concluded.

6. Thereafter, the Committee deliberated and decided to invite information from all the State Governments as to what action has been taken by them xxxx
xxxx xxxx xxxx on rural water supply and sanitation.

7. A verbatim record of the proceedings has been kept.

The Committee then adjourned.

MINUTES OF SEVENTH SITTING OF THE COMMITTEE ON ESTIMATES
(2014-15)

The Committee sat on Monday, the 13th October, 2014 from 1500 hrs. to 1745 hrs. in Room No. '53', Parliament House, New Delhi.

PRESENT

Dr. Murli Manohar Joshi – Chairperson

MEMBERS

2. Shri Kirti Azad
3. Shri Kalyan Banerjee
4. Shri Dileep Singh Bhuria
5. Shri Ashwini Kumar Choubey
6. Col. Sonaram Choudhary
7. Shri Ramen Deka
8. Shri Kalikesh N. Singh Deo
9. Shri P. C. Gaddigoudar
10. Smt. Kavitha Kalvakuntla
11. Shri Vinod Khanna
12. Shri P. Kumar
13. Shri K. H. Muniyappa
14. Shri Ravindra Kumar Pandey
15. Shri J.C. Divakar Reddy
16. Shri Md. Salim
17. Shri Ganesh Singh
18. Shri Kirti Vardhan Singh
19. Shri Rajesh Verma
20. Shri Ram Kripal Yadav
21. Shri Jai Prakash Narayan Yadav

SECRETARIAT

1. Shri A. Louis Martin – Additional Secretary
2. Shri S. Chatterjee – Director
3. Shri Srinivasulu Gunda – Additional Director

LIST OF REPRESENTATIVES

XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
XXXX	XXXX	XXXX	XXXX	XXXX	XXXX

MINISTRY OF DRINKING WATER & SANITATION

1. Mrs. Vijay Laxmi Joshi - Secretary
2. Shri Satyabrata Sahu - Joint Secretary (W)
3. Saraswati Prasad - Joint Secretary (S)

2. At the outset, the Chairperson welcomed the representatives of the xxx
xxx xxx xxx Ministry of Drinking Water and Sanitation
xxx xxx xxx xxx to the sitting of the
Committee for evidence/further evidence in connection with examination of the
subjects xxx xxx xxx xxx xxx and (ii) Rural
Water Supply and Sanitation Programme and drew their attention to Direction
55(1) of 'Directions by the Speaker, Lok Sabha' regarding confidentiality of the
proceedings of the Committee.

3. The Committee discussed various issues related to the subject(s) viz. xxx
xxx xxx xxx and 'Rural Water
Supply and Sanitation Programme'; to the points to which the representatives
could not readily respond, the Chairperson desired the Ministries to furnish detailed
written replies.

4. A verbatim record of the proceedings has been kept.

The Committee then adjourned.

MINUTES OF TWENTY-FIRST SITTING OF THE COMMITTEE ON ESTIMATES
(2014-15)

The Committee sat on Wednesday, the 15th April, 2015 from 1515 hrs to 1600 hrs. in Room No. '62', Parliament House, New Delhi.

PRESENT

Dr. Murli Manohar Joshi – Chairperson

MEMBERS

2. Shri Om Birla
3. Shri Dileep Singh Bhuria
4. Shri Ramen Deka
5. Shri Kalikesh N. Singh Deo
6. Shri Sanjay Dhotre
7. Shri P. C. Gaddigoudar
8. Shri Sudheer Gupta
9. Dr. Sanjay Jaiswal
10. Smt. Darshana Vikram Jardosh
11. Shri Ravindra Kumar Pandey
12. Shri Shri Arvind Sawant
13. Shri Rajesh Verma

SECRETARIAT

1. Shri Devender Singh – Additional Secretary
2. Shri Vipin Kumar – Director
3. Shri Srinivasulu Gunda – Additional Director
4. Shri U. C. Bharadwaj – Deputy Secretary

2. At the outset, the Chairperson welcomed the Members to the Sitting of the Committee.

3. The Committee then took up for consideration the following draft Reports:-
- (i) Draft Report on 'Rural Drinking Water Programmes' pertaining to the Ministry of Drinking Water and Sanitation;
 - (ii) xxxx xxxx xxxx xxxx xxxx and
 - (iii) xxxx xxxx xxxx xxxx xxxx
xxxx

4. The Committee adopted the above Report(s) with slight modifications and authorized the Chairperson to finalize them in the light of the modifications suggested and factual verification (in r/o original reports only) and present the same to Lok Sabha.

The Committee then adjourned.