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## National Rural Drinking Water Programme, (updated) 2013

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# **National Rural Drinking Water Programme**

Rajiv Gandhi Drinking Water Mission

**Movement towards ensuring people's Drinking Water Security in Rural India**

**Framework for Implementation (updated 2013)**

Ministry of Drinking Water & Sanitation  
Government of India







# National Rural Drinking Water Programme

**Movement towards ensuring people's Drinking  
Water Security in Rural India**

**Guidelines – 2013**



**Ministry of Drinking Water & Sanitation**

**Government of India**



पंकज जैन, आई.ए.एस.  
**PANKAJ JAIN, I.A.S.**



सचिव  
भारत सरकार  
पेयजल एवं स्वच्छता मंत्रालय  
Secretary

Government of India  
Ministry of Drinking Water and Sanitation  
247, 'A' Wing, Nirmal Bhawan, New Delhi-11018  
Tel.: 23061207, 23061245 Fax: 23062715  
E-mail: secydws@nic.in, Website: www.mdws.nic.in



## Foreword

In 2009, the Accelerated Rural Water Supply Programme was modified as the National Rural Drinking Water Programme (NRDWP) with major emphasis on ensuring sustainability of water availability in terms of potability, adequacy, convenience, affordability and equity, on a sustainable basis, while also adopting decentralized approach involving PRIs and community organizations.

However, experiences learnt in the process of implementing the NRDWP Framework of Implementation, and on the basis of the analysis of the results of the successes achieved and deficiencies that remain with the NRDWP, has brought out the fact that certain modifications are needed in some components and further clarity is need on some other issues of the programme. After consultations with States, amendments have been brought about in the framework, some of which have already been implemented while others are being implemented.

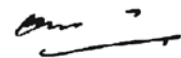
The XIIth Five Year plan approach of focus on piped water supply, increasing household tap connections and raising drinking water supply norms from 40 lpcd to 55 lpcd has to be incorporated. These changes envisage a new way in implementing the NRDWP. The principal changes include:-

- Focus on piped water supply rather than on handpumps, so as to decrease the pressure on ground water extraction and also ensure potability of water;
- Enhancement of service levels for rural water supply from the norm of 40 lpcd to 55 lpcd for designing of systems;
- Greater thrust on coverage of water quality affected habitations with earmarked funding for chemical contamination and Japanese Encephalitis and Acute Encephalitis Syndrome (JE/AES) affected areas;
- Moving towards the target that, by 2017, at least 50 per cent of rural population in the country have access to 55 lpcd within their household premises or within 100 metres radius, with at least 30 per cent having individual household connections, as against 13 per cent today;

- Conjoint approach between rural water supply and rural sanitation so as to achieve saturation of habitations with both these services;
- Incentivise substantive devolution of functions, funds and functionaries to the Gram Panchayats with respect to rural water supply schemes, through a Management Devolution Index (MDI) with clear and specific indicators on the basis of which distribution among States of 10% of National allocation would be decided;
- All new drinking water supply schemes to be designed, estimated and implemented to take into account life cycle costs and not just per capita costs;
- Waste water treatment and recycling to be an integral part of every water supply plan or project; bringing the concept of Renovation and Modernization (R & M) into the planning process;
- Prioritisation of States which are lagging in terms of coverage with piped water supply;
- Focus on States with Integrated Action Plan (IAP) districts, with an innovative dual powered Solar pumps for remote, small habitations and those with irregular power supply, with convergent funding from the National Clean Energy Fund (NCEF);
- Making available additional resources for operation and management of water supply schemes;
- Participative planning and implementation of integrated water resource management practices through water budgeting and both supply side and demand side planning;
- Earmarking of funds for coverage of SC and ST population concentrated habitations;
- Incentive to ASHA workers for encouraging households to take household connections;
- Setting up of the Block Resource Centres (BRC) ;
- Strengthen financial control of the funds released by the Government of India to the States ;
- Facilitating the above, detailed manuals for Operation and Maintenance of schemes. Sustainability activities, Model DPRs for water supply schemes and a Water Quality Monitoring and Surveillance protocol have been prepared;
- Strengthening the procedure for Accounting and Auditing of the Programme.

The above changes and amendments have now been incorporated into the NRDWP Framework and are being published in this updated Framework of implementation.

It is hoped that these new Framework will help in better implementation of the programme.



(Pankaj Jain)

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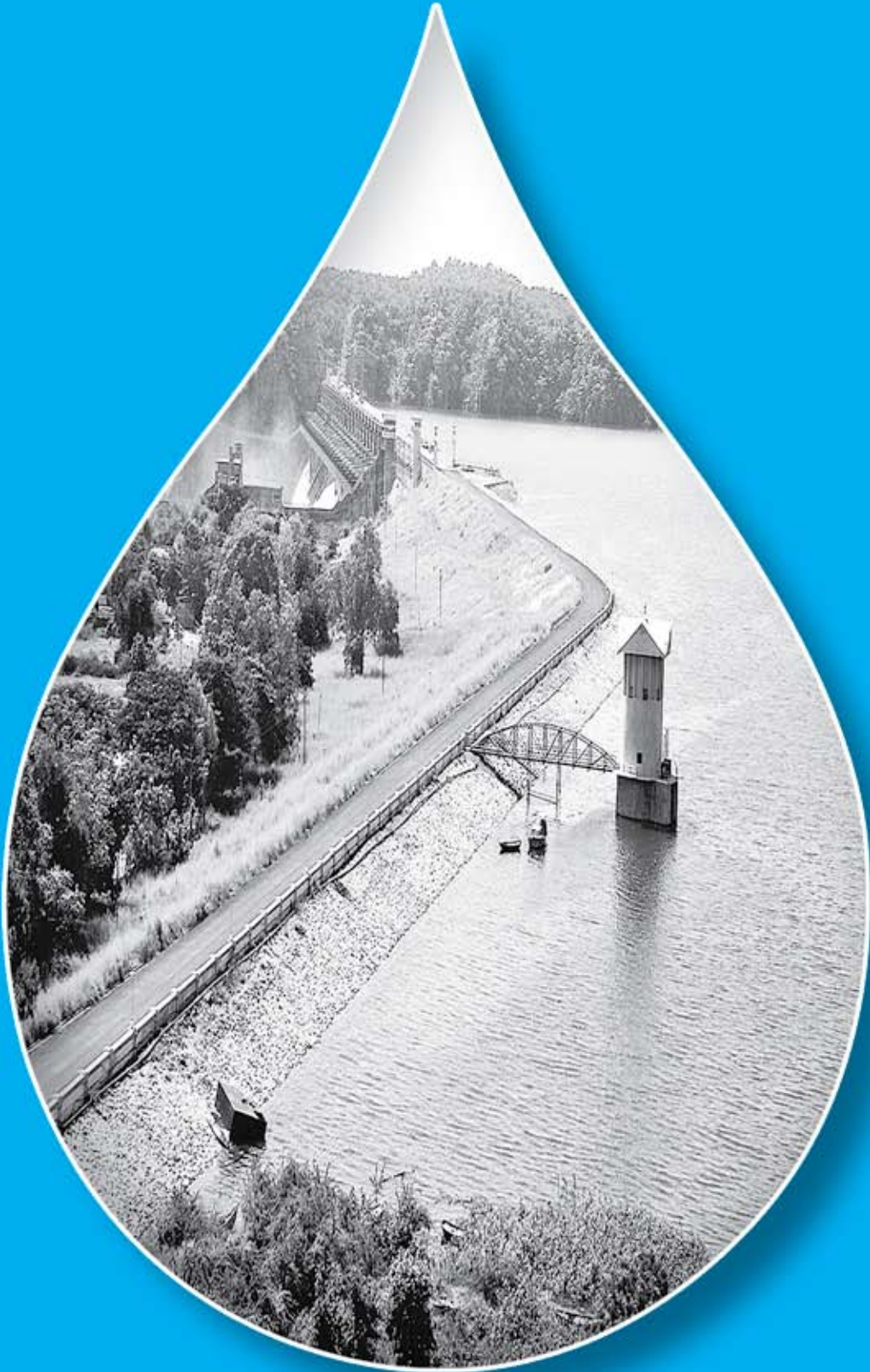
# Abbreviations

AMC	Annual Maintenance Contract
ASHA	Accredited Social Health Activist
BIS	Bureau of Indian Standards
CAG	Comptroller and Auditor General of India
CBO	Community-based organisation
WSSO (CCDU)	Communication and Capacity Development Unit
CEE	Centre for Environment and Education
CGWB	Central Ground Water Board
CSE	Centre for Science and Environment
CSIR	Council of Scientific and Industrial Research
CWC	Central Water Commission
CWSAP	Comprehensive Water Security Action Plan
DA	Dearness Allowance
DDP	Desert Development Programme
DPAP	Drought Prone Areas Programme
DPR	Detail Project Report
DWSM	District Water and Sanitation Mission
GIS	Geographical Information System
GoI	Government of India
GP	Gram Panchayat
GPS	Global Positioning System
GSI	Geological Survey of India
HADP	Hill Areas Development Programme
HRD	Human Resource Development
ICT	Information and Communication Technologies
IEC	Information, Education and Communication
IMIS	Integrated Management Information System
IT	Information Technology
IIH&PH	Indian Institute of Hygiene and Public Health
IIRS	Indian Institute for Remote Sensing
IIT	Indian Institutes of Technology
M&I	Monitoring and Investigation
MIS	Management Information System
MoU	Memorandum of Understanding
NGO	Non-governmental organisation
NGRI	National Geophysical Research Institute

NIC	National Informatics Centre
NICSI	National Informatics Centre Services Inc.
NICD	National Institute of Communicable Diseases
NIRD	National Institute of Rural Development
NPC	National Project Committee
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
NRDWQM&S	National Rural Drinking Water Quality Monitoring & Surveillance
NRHM	National Rural Health Mission
NRSC	National Remote Sensing Centre
NRDWP	National Rural Drinking Water Programme
NBA	Nirmal Bharat Abhiyan
O&M	Operation and Maintenance
OBC	Other Backward Classes
PHC	Primary Health Centre
PHED	Public Health Engineering Department
PRI	Panchayati Raj Institution
R&D	Research and Development
RDBMS	Relational Data Base Management System
RGNDWM	Rajiv Gandhi National Drinking Water Mission
SC	Scheduled Caste
SHG	Self Help Group
SLSSC	State Level Schemes Sanctioning Committee
ST	Scheduled Tribe
STA	State Technical Agency
SWOT	Strengths-Weaknesses-Opportunities-Threats
SWSM	State Water and Sanitation Mission
TA	Travelling Allowance
TSC	Total Sanitation Campaign
UT	Union Territory
VAP	Village Action Plan
VWSC	Village Water and Sanitation Committee
WSSO	Water and Sanitation Support Organisation
WHO	World Health Organisation
WQM&S	Water Quality Monitoring & Surveillance

## Units of Measure

lpcd	litres per capita per day
m	metre



The first government-installed rural water supply schemes were implemented in the 1950s as part of the Government policy to provide basic drinking water supply facilities to the rural population.

# National Policy Framework



## 1. National Goal

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.

## 2. Basic Principles

- ▶ Water is a public good and every person has the right to demand drinking water.
- ▶ It is the lifeline activity of the Government to ensure that this basic need of the people is met.
- ▶ To improve public health and thereby increase economic productivity, there is an urgent need to immediately enhance access to safe and adequate drinking water and Government should give highest priority to the meeting of this basic need for the most vulnerable and deprived sections of society.
- ▶ The ethic of fulfillment of drinking water needs to all should not be commercialized and denied to those who cannot afford to pay for such service.
- ▶ Drinking water supply cannot be left to the market forces alone. The importance of providing livelihood supply to all and its vital linkage with the health of the people must be recognized.
- ▶ As such, the emphasis is more on Public-Public Partnership (such as between Gram Panchayat and PHED for in-village distribution of drinking water) rather than

commercialization of drinking water supply by private agencies.

- ▶ User charges of the water supply system should have an in-built component of cross-subsidy to ensure that the economically backward groups are not deprived of this basic minimum need.

## 3. Vision, Objectives and Goals

### 3.1. Vision

Safe and adequate drinking water for all, at all times, in rural India.

### 3.2. Objectives

In rural areas of the country, to

- a) enable all households have access to and use safe and adequate drinking water and within reasonable distance;
- b) enable communities to monitor and keep surveillance on their drinking water sources;
- c) ensure potability, reliability, sustainability, convenience, equity and consumers preference to be the guiding principles while planning for a community based water supply system;
- d) provide drinking water facility, especially piped water supply, to Gram Panchayats that have achieved open defecation free status on priority basis;
- e) ensure all government schools and anganwadis have access to safe drinking water;



- f) provide enabling support and environment for Panchayat Raj Institutions and local communities to manage their own drinking water sources and systems in their villages;
- g) provide access to information through online reporting mechanism with information placed in public domain to bring in transparency and informed decision making;

### 3.3 Goals – Strategic Plan (2011-2022)

The Ministry has prepared a Strategic Plan for the rural drinking water sector for the period 2011 to 2022. The Goal of the Strategic Plan is:

- ▶ ***To ensure, that every rural person has enough safe water for drinking, cooking and other domestic needs as well as livestock throughout the year including during natural disasters and,***
- ▶ ***by 2022, 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 their household without barriers of social or***

***financial discrimination. Individual States can adopt higher quantity norms, such as 100 lpcd.***

## 4. Paradigm Shift

- ▶ In the Eleventh Five year Plan the basis of coverage under the rural water supply programme telescoped from habitations to households i.e. ensuring drinking water supply to all households in the community. Hitherto rural water supply was predominantly provided through hand pumps. In the Twelfth Five Year Plan, there will be a major shift of emphasis towards piped water supply with the goal of providing at least 50% of the rural population with at least 55 lpcd within the household premises or at a horizontal or vertical distance of not more than 100 metres from their household without barriers of social or financial discrimination.
- ▶ While initiating this move for drinking water security at the State, District and Village levels, it is important to ensure that the basic minimum requirement at the household

### To achieve this goal, the following timelines have been laid out:

#### By 2017,

Ensure that at least 50% of rural households are provided with piped water supply; at least 35% of rural households have piped water supply with a household connection; less than 20% use public taps and less than 45% use handpumps or other safe and adequate private water sources. All services meet set standards in terms of quality and number of hours of supply every day.

Ensure that all households, schools and anganwadis in rural India have access to and use adequate quantity of safe drinking water.

Provide enabling support and environment for Panchayat Raj Institutions and local communities to manage at least 60% of rural drinking water sources and systems.

#### By 2022,

Ensure that at least 90% of rural households are provided with piped water supply; at least 80% of rural households have piped water supply with a household connection; less than 10% use public taps and less than 10% use handpumps or other safe and adequate private water sources.

Provide enabling support and environment for all Panchayat Raj Institutions and local communities to manage 100% of rural drinking water sources and systems.

level for drinking and cooking needs and also for other household needs and livestock are met.

- To prevent contamination of drinking water in the conveyance system, it is advisable to adopt 24 x 7 supply wherever possible. The cost of water supply provision beyond the basic minimum need may be borne by the consumers.
- To ensure this, it is important to maintain potability and reliability of drinking water quality standards both at the production (water treatment plant/ handpumps) as well as at the consumption points (household level).
- Focus on personal hygiene, and proper storage at the house hold level i.e. at the family level will ensure reduction of disease burden leading to improved quality of life and well being of the community.
- For ensuring quality of water, Bureau of Indian Standard (BIS) IS: 10500 was formulated in 1990 and revised in 2012. World Health Organization has also issued modified Guidelines for Drinking Water Quality (2004) and Guidelines for safe use of wastewater and grey water (2006). Both the guidelines adopted health based target setting approach.
- Water supply for drinking and cooking should maintain quality as per BIS standards and for other household and animal needs, the water should be of acceptable standard
- Water safety plan links the identification of a water quality problem with a water safety solution. It includes both water quality testing and also sanitary inspection to determine appropriate control measures. It is a quality assurance tool that ensures protection of the water quality from the catchment to the consumer and from the tap to the toilet.
- Health based target needs to be established for using groundwater, surface water, rainwater and reused/recycled water. For each, the use rather than the source should determine the quality of the water supplied.

- There is need to establish quality assurance programmes for water supplies to reduce the potential risk of contamination of water supply. This has been indicated under 'Water Quality Monitoring & Surveillance Programme' (Annexure III).
- Installation of a water supply system in a habitation does not confer on the habitation the status of a fully covered habitation unless every house hold in the habitation has been fully covered with potable water in sufficient quantity.
- To enable the community to plan, implement and manage their own water supply systems, the State should transfer the program to the PRIs particularly to the Gram Panchayats for management within the village.

## 5. Steps to Ensure Source Security

- Because of its vulnerability under different circumstances, in order to achieve water security at the individual household level, the water supply system should not depend on a single source.
- During natural calamity or pollution of different sources, the single drinking water source may either become non-potable or inaccessible resulting in acute shortage of drinking water availability to many, especially to the marginalised people and livestock.
- Water security involves conservation and storage of water by utilising different sources for different use viz. properly collected and stored rainwater, treated surface water/ ground water for drinking and cooking, untreated water for bathing and washing and grey water/spent water for flushing of toilets.
- To ensure risk and vulnerability reduction on such occasions and to ensure reliability and sustainability, a good frame work should consider different drinking water sources accessible in different situations and different points of time.



- ▶ Adopt 'Wise Management of Water' for the equitable use, management and allocation of water for domestic purpose which involves optimizing the use of both conventional and non-conventional water resources and focuses on both 'water quality and water quantity' by providing solutions from the catchment to the consumer.
- ▶ Adopting integrated approach by revival of traditional systems, conjunctive use of surface and ground water, storage of rain water harvesting both at the community level and at the household level will ensure risk and vulnerability reduction
- ▶ Harvesting and storage of rain water for drinking both at the community level and at the household level will ensure drinking water security even in adverse conditions for a few months. With sufficient storage capacity this may even be sufficient for the whole year.
- ▶ For all ground water based water supply schemes, whether old or new, ground water recharging mechanism should constitute an integral part of the system design.
- ▶ For ground and surface drinking water sources, it is of utmost importance to protect the catchment to prevent its pollution from human and animal excreta and other sources of bacteriological contamination. Well designed bunds, channels, bed protection, and convergence with Nirmal Bharat Abhiyan (Total Sanitation Campaign) and Mahatma Gandhi National Rural Employment Guarantee Scheme for low cost waste water management through stabilization ponds, are a pre-requisite for ground and surface drinking water source protection.
- ▶ Convergence with the MGNREGS program for construction of new ponds and rejuvenation of the old ponds, including de-silting, should be built into the system design and execution.
- ▶ Excess rain water at the household and community level should be recharged into the ground aquifer wherever feasible which

will not only improve ground water quality but will also ensure its adequacy.

- ▶ To ensure household level drinking water security and potability, community stand-alone water purification systems could also be promoted.
- ▶ A suitable blend of all the above approaches will lead to wise water management of drinking water at community level.

## 6. Long Term Sustainability

- ▶ To ensure lifeline drinking water security under all circumstance and at all times, it may be required to have an alternate sub district, district and or state level water supply system in the form of a grid supplying metered bulk water to GPs/village by adopting an appropriate system of pricing. But this does not undermine the importance of multiple sources including traditional drinking water sources and conjunctive use of water.
- ▶ State or district or sub district level grid could be in the form of major pipelines, canals or any other appropriate system connecting major water bodies/sources.
- ▶ Treatment could be at the delivery point or at the source, but water quality testing could be done at both ends.

## 7. Critical Issues

The critical sector issues that need to be tackled during the Twelfth Plan period can be summarized as follows:

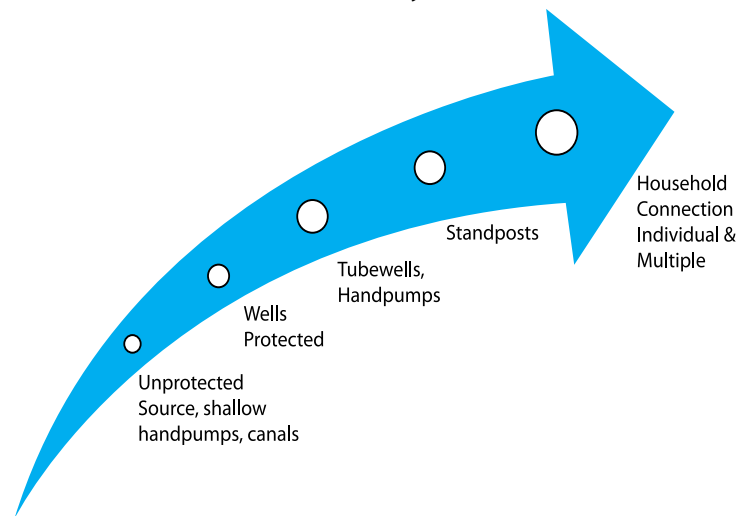
- ▶ Need to focus on piped water supply rather than on handpumps
- ▶ Enhancement of service levels for rural water supply from the norm of 40 lpcd to 55 lpcd for designing of systems.
- ▶ Greater thrust on coverage of water quality affected habitations to tackle this problem within the XIIth Plan period.
- ▶ Prioritisation of States which are lagging in terms of coverage with piped water supply

- Focus on States with Integrated Action Plan (IAP) districts
- Making available additional resources for operation and management of schemes
- Conjoint approach between rural water supply and rural sanitation so as to achieve saturation of habitations with both these services.
- Participative planning and implementation of water resource management practices
- Gradual shift from over dependence on ground water to surface water sources, and conjunctive use of ground water, surface water and rainwater.

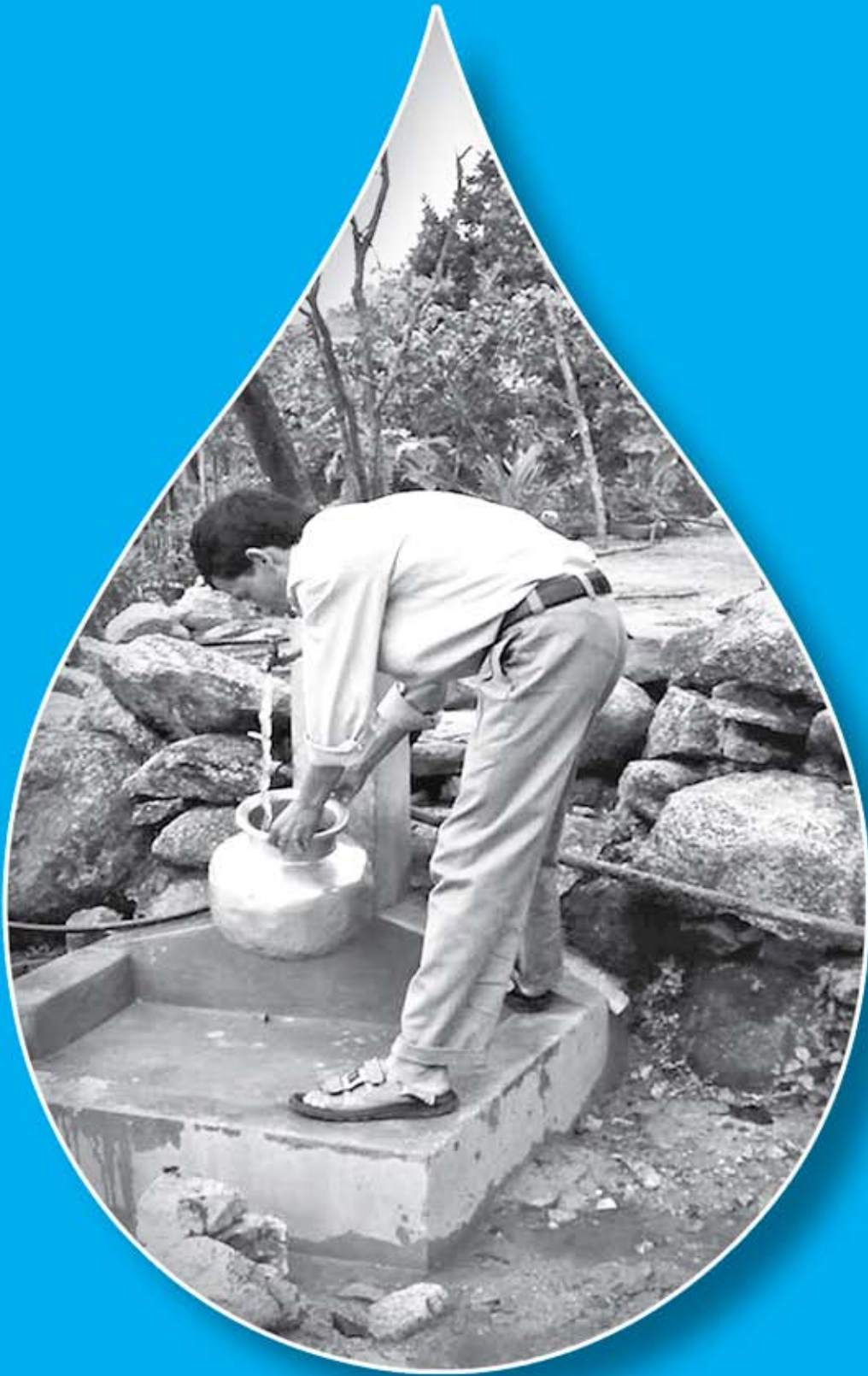
## 8. Norms

- To make norms and guidelines broad-based and allow flexibility to the community to plan water supply schemes based on their needs and to suit the local requirement, it is recommended that desirable service level should be decided in consultation with the community.
- Level of service should be linked to the issue of demand, commonly expressed through user's basic need for a particular level of service and satisfaction at household level on sustainable basis.
- The goal should be to move up the Water Ladder of service delivery so that ultimately all rural households are provided with adequate piped safe drinking water supply within the household premises. This is necessary to relieve women and girls especially, from the drudgery of fetching water, address malnutrition issues, and increase the time available for education and leisure, while also preventing contamination likely while fetching water from a distant source.
- The basic minimum service level of potable drinking water supply service in rural areas that was adhered to since the inception of ARWSP was 40 lpcd. The minimum level should be 55 lpcd in Twelfth Five Year Plan period as per details given in Annexure-I

### Water Ladder of Service Delivery



- A habitation in which all the households do not have the basic minimum drinking water facility of potable quality at a convenient location on a sustainable basis is to be considered as uncovered or partially covered.
- There is no distinction between habitations not covered due to quality or quantity aspects since in either case the same steps are to be taken to provide alternate potable and adequate water to the household.
- Highest priority should be given to habitations with 0-15 lpcd, then to habitations with 15-30 lpcd, then 30-40 lpcd and finally to these with 40-55 lpcd.
- Coverage of a particular habitation should be indicated based on these criteria.
- The issue of equity and basic minimum needs is to be considered while designing the schemes and planning investment.



To increase economic productivity and improve public health, there is an urgent need to immediately enhance access to safe and adequate drinking water

# The Programme



## 9.1 Household level drinking water security

- Starting with the Eleventh Plan, the endeavour is to achieve drinking water security at the household level. Average per capita availability may not necessarily mean assured access to potable drinking water to all sections of the population in the habitation.
- Under the plan, all the remaining habitations with population coverage from 0% population coverage to below 100% population coverage and existing and newly identified quality affected habitations are to be covered, sustainability of water supply schemes has to be ensured and “slip backs” are to be contained. Priority has to be given to coverage of 0-25% and 25%-50% population coverage habitations and quality affected habitations in planning.
- Census 2011 reports that 22.17% of rural households have their drinking water source beyond 500 metres. Providing drinking water supply closer to such households should be the highest priority. It also reports that 11.8% of rural households obtain drinking water from uncovered wells and 4% from other sources (other than handpump/tubewell, tap water or well water). Habitations with such households should also be covered on priority.
- The maintenance of water supply systems, ensuring water quality, reliability and convenience of availability to every rural household in an equitable manner has been given priority.

## Twelfth Five Year Plan approach

The Twelfth Five Year Plan approach envisages a significant shift in the way rural water supply is to be looked at. The principal areas of action and focus shall be the following:

- Looking at the increasing number of hand pumps, and the resulting lowering of the ground water table across the country, which is also leading to water quality issues, there has to be an increased focus on promoting piped water supply rather than on hand pumps, that too with a gradual shift towards surface water based schemes.
- Ever since the inception of planning for rural drinking water supply, service levels have been pegged at 40 lpcd. To progressively remove the gap between service levels of rural and urban water supply, it is now necessary to move towards enhancement of service levels for rural water supply from the norm of 40 lpcd to at least 55 lpcd for designing of systems.
- Over the past few Five Year Plans, even though focus has been placed on the coverage of Quality Affected habitations, there are still a large number of such habitations, with more habitations being reported every year. Through the XIIth Five Year Plan, it is necessary to have a greater thrust on coverage of the remaining and newly emerging water quality affected habitations, in order to remove this menace within the XIIth Five Year Plan period.
- An important indicator of improving service levels, is the extent of piped water supply. In view of the results of the Census 2011, it is



necessary that prioritisation of States which are lagging in terms of coverage with piped water supply be done.

- To ensure equitable development, there needs to be a focus on development of rural water supply in States with IAP districts.
- To ensure that schemes set up do not slip back, and valuable investment is protected, adequate resources for Operation and Maintenance of schemes needs to be made available.
- Drinking Water supply has a significant impact on Public Health and on the success of sanitation practices. Further, ineffective sanitation practices significantly impact the quality of water being consumed. A Conjoint approach between rural water supply and rural sanitation so as to achieve saturation of habitations and Gram Panchayats with both these services needs to be a focus area.

### Conjunctive use of water

- There should be a move from over-dependence on groundwater or any one source of drinking water to the conjunctive use from several sources, viz., ground, surface water and rainwater harvesting including recharge/roof water collection and bulk transfer through pipelines.

### Decentralised approach

- The fundamental basis on which drinking water security can be ensured is the decentralized approach through Panchayati Raj Institutions (PRIs) and community involvement.
- This needs to be achieved in Mission mode by involving the community and at the same time enriching their knowledge and skills in a way that rural households and communities are truly empowered to manage and maintain their drinking water sources and systems.
- It is necessary to build a warehouse of information and knowledge at the State and district levels which can regularly contribute

to bringing the “hardware” of technologies—conventional/unconventional/innovative systems of water supply and link the same to the “software” of skills, knowledge enthusiasm and desire for ownership of the water supply projects by the communities and Panchayati Raj Institutions themselves.

- The in-village water supply schemes should be planned, approved, implemented, managed, operated and maintained by the PRIs and local community.
- The State Government and/ or its agencies/public utilities may shoulder the responsibility of bulk metered transfer of water, its treatment and distribution up to the village, whereas inside the village, it is the PRI or its sub-committee i.e. Gram Panchayat/Village Water and Sanitation Committee (GPWSC/VWSC)/ Pani Samiti that is to take over the responsibility for in-village drinking water management and distribution.
- Government to play the role of facilitator and with the help of NGOs/CBOs and civil society to build the capacity of local community/ PRIs to manage the in-village water supply systems and sources.
- Transfer existing drinking water supply systems to communities and PRIs for management, operation and maintenance.
- To facilitate effective Operation and Maintenance of drinking water supply schemes, an Operation and Maintenance manual has been prepared by the Ministry.
- Reward good performance and achievement of sustainability.
- Activity mapping should be carried out indicating the process, time frame and incremental improvement towards transfer of “funds, functions and functionaries” to the three tiers of Panchayati Raj in such a way as to enable them to plan, implement and manage the rural water supply programme.
- Local planning involves preparing the community and even household level supply plan taking into consideration the available natural resources, skill and potentialities.

- ▶ Training of PRI functionaries and Gram Panchayat/Village Water and Sanitation Committee (GPWSC/VWSC) members is very essential for local planning and should be adequately provided for.

## 9.2 Earmarked Funds of NRDWP.

The earmarked funds under the NRDWP are:

- (i) 10% for North-East States including Sikkim
- (ii) 10% for Desert Development Programme (DDP) areas to tackle the extreme conditions of low rainfall and poor water availability.
- (iii) 5% of Water Quality for allocation to States with chemically contaminated quality affected habitations and JE/ AES affected high priority districts with bacteriological contamination.
- (iv) 2% for Natural Calamities for providing assistance to States/ UTs to mitigate drinking water problems in rural areas in the wake of natural calamities.

## 9.3. Components of the NRDWP

To meet the emerging challenges in the rural drinking water sector relating to NRDWP availability, sustainability and quality, the components under the programme on which all funds, except the earmarked 5% Water Quality and 2% Natural Calamities fund, will be utilised are as follows:

- i) COVERAGE for providing safe and adequate drinking water supply to unserved, partially served and slipped back habitations,
- ii) SUSTAINABILITY to encourage States to achieve drinking water security at the local level,
- iii) Provide potable drinking water to water QUALITY affected habitations
- iv) OPERATION & MAINTENANCE (O&M) for expenditure on running, repair and replacement costs of drinking water supply projects,
- v) Water Quality Monitoring and Surveillance (WQMS), and
- vi) SUPPORT activities.

### (i) At the Central Level

- ▶ **NRDWP – North East States:** 10% of the annual NRDWP allocation will be allocated to North East States on 90:10 Centre: State sharing pattern.
- ▶ **NRDWP – DDP:** 10% of the annual NRDWP allocation will be allocated to States with DDP areas on 100% Central share basis.
- ▶ **NRDWP (Water Quality affected areas):** 5% of the annual NRDWP allocation will be earmarked for allocation to States having chemical contamination of drinking water sources and with Japanese Encephalitis/ Acute Encephalitis Syndrome (JE/AES) affected high priority districts. Description of the activities to be taken up under this

### Component, Purpose, Distribution and Centre-State Sharing pattern of the NRDWP at Central level.

	NRDWP Central Allocation	Centre-State sharing pattern
Non NE States	73 %	90:10 to NE States and J & K and 50:50 to other States.
NE States	10 %	90 :10
DDP Area States	10 %	100 % Central share
Water Quality ( Earmarked ) for chemical contamination & JE/ AES affected States.	5 %	90:10 to NE States and J & K and 50:50 to other States.
Natural Calamities	2 %	100 % Central share

allocation is at Annexure XI. This will be funded on 50:50 cost sharing basis except for NE States and J&K for which it will be 90:10 between the Centre and States.

- ▶ **NRDWP (Natural calamity):** 2% of the NRDWP funds will be retained by MDWS and used for providing assistance to States/ UTs to mitigate drinking water problems in the rural areas in the wake of natural calamities.
- ▶ The remaining 73% of the NRDWP funds will be allocated among the non-North East States on a funding pattern of 50:50 except for J & K for which it will be on 90:10 sharing basis between Centre and States.

### (ii) At the State Level

At the State level the programme funds available for different components will be as follows:

- ▶ **NRDWP (Coverage):** 47 % of the annual NRDWP funds will be allocated for Coverage,

which will be allocated amongst States/ UTs on the basis of prescribed interstate allocation criteria. The funding pattern for this component will be on 50:50 basis except for the North–East States and Jammu & Kashmir for which the funding pattern will be on 90:10 basis between the Centre and the States.

- ▶ **NRDWP (Water Quality):** 20% of the annual NRDWP funds will be allocated for tackling water quality problems to enable rural communities to have access to potable drinking water. The funding pattern for this component will be on 50:50 basis except for the North–East States and Jammu & Kashmir for which, funding pattern will be on 90:10 basis between the Centre and the States.
- ▶ **NRDWP (Operation and Maintenance):** a maximum 15% NRDWP funds will be allocated to be used by the States/UTs on

### Component, Purpose, Distribution and Centre-State Sharing pattern of the NRDWP at State level.

Component	Purpose	Distribution of State NRDWP allocation	Center-State Sharing pattern
Coverage	For providing safe and adequate drinking water supply to unserved, partially served and slipped back habitations	47%	90:10 (for NE States and J&K) 50:50(for other States)
Quality	To provide safe drinking water to water quality affected habitations.	20%	
Operation and Maintenance (O & M)	For expenditure on running, repair and replacement costs of drinking water supply projects.	15% Maximum	
Sustainability	To encourage States to achieve drinking water security at the local level through sustainability of sources and systems.	10% Maximum	100:0
Support	Support activities like WSSO, DWSM, BRCs, IEC, HRD, MIS and computerisation, R&D etc.	5 %	100:0
Water Quality Monitoring and Surveillance	For monitoring and surveillance of water quality in habitations at field level and for setting up, upgrading laboratories at State, district and sub-district levels.	3%	100:0
Total		100 %	

O&M of rural drinking water supply schemes. The funding pattern for this component will be on 50:50 basis except for the North–East States and Jammu & Kashmir for which, funding pattern will be on 90:10 basis between the Centre and the States.

- **NRDWP (Sustainability)** – a maximum 10% of the NRDWP funds will be earmarked for this component on a 100% Central share basis to be allocated among States/UTs, which will be used to encourage States/ UTs to achieve drinking water security through sustainability of sources and systems. The component will be funded fully by the Centre (State share not required for the component). States will be required to prepare district-wise Drinking Water Security Plan and funds under NRDWP will be used to fund the gap in the plan.
- **NRDWP (DDP Areas):** 10% of the annual NRDWP allocation will be assigned amongst States having DDP blocks/ districts. This will be funded on 100% Central share basis.
- **NRDWP (Support):** 5% of NRDWP funds on a 100% Central share basis will be used for different support activities which will be required to be carried out in order to enable the rural communities to have access to assured availability of potable drinking water, use of advanced technology, viz. satellite data/ imagery; GIS mapping; MIS and computerization; etc. and other sector support activities, viz. IEC; HRD in the sector; training, conferences, seminar, R&D activities, WSSO (CCDU) setup, etc.
- **NRDWP (WQM&S):** 3% of NRDWP funds on a 100% Central share basis will be used for Water Quality Monitoring and Surveillance activities which is to be utilised to carry out water quality surveillance at the field level as well as setting up and operating water quality testing laboratories at the state, district and sub district levels. The Uniform Drinking Water Quality Monitoring Protocol may be referred for guidance.

## 9.4. Flexible Policy

- There will be incentives for States to decentralize and hand over water supply systems for management, operation and maintenance to Panchayats. Since there is a wide variation among States in the number of habitations having water quality problems and left over partially covered habitations, funds under different components of NRDWP, viz. Coverage and Water Quality will be available to States/ UTs with the flexibility to choose the component(s) under which, they would like the funding to be provided. As such up to 67% of the funds available at State level can be used for tackling coverage or water quality.
- The allocation for Sustainability component is limited to 10% on a 100% grant-in aid basis. States that propose to utilize less than 10% against the Sustainability component will have to furnish justification to MDWS for decision in the matter.
- Relaxation will be available only to those states/areas that are 'water surplus' (with annual normal rainfall more than 1500 mm). No relaxation of 'Sustainability' investment would be feasible for areas of 'water deficit' States (with normal rainfall less than 1500mm) since in such areas attention must be paid to recharge structures, rejuvenation of sources (defunct bore wells) and rain water harvesting structures.
- The allocation for Sustainability will be used exclusively to achieve drinking water security by adopting conjunctive use of surface water, rain water and ground water and construction of water recharging structures with major emphasis on water quality affected areas, overexploited, critical and semi-critical areas as specified by CGWB, and any other area that the State Government has identified as water stressed area. Guidelines for planning and implementation of Sustainability projects are at Annexure II.



- For taking up sustainability projects it is to be ensured that the existing and proposed rural drinking water sources are directly recharged and for that the detailed manual on “Mobilising Technology for Sustainability” and the Sustainability Manual issued by the Ministry of Drinking Water and Sanitation, Government of India may be referred for planning, design and implementation of such projects .

### 9.5. Criteria for Allocation of Funds under NRDWP

Criteria for allocation of funds to the States under the NRDWP w.e.f. 25.2.2010 (as modified from time to time) will be as under:

- In case of NRDWP (DDP Areas), the criteria for allocation of funds would be the same as that for the other components except that the relevant information pertaining to rural areas of DDP blocks would be considered. The Desert Development Programme of Department of Land Resources, Ministry of Rural Development is under implementation in 235 blocks of 40 districts in 7 States. The State Government Department in charge of Rural Water Supply Programme should ensure that funds released for DDP blocks are released to the respective district within which the DDP blocks falls, for taking up rural water supply projects in these blocks only. The States with DDP areas along with the number of blocks and area are indicated in the table below.
- The allocation of Central assistance under the NRDWP for a financial year would be communicated to the States/UTs at the beginning of the financial year.

### 9.6. Incentive Fund

- In the criteria for allocation of funds to States/UTs, 10% weightage has been given for “rural population managing rural drinking water supply schemes weighted by a Management Devolution Index (MDI). Indicators and weightages for calculating the MDI are given in Annexure VIII.
- This criterion for allocation will be used as incentive to States for decentralization and reforms in the sector.
- To encourage the States to bring in reforms and decentralize the rural drinking water supply sector, the States/UTs would provide the detailed information regarding “rural population managing rural drinking water supply schemes” before 31st March every year to enable the Ministry to finalize the allocation in the beginning of the next financial year.
- To achieve this ‘Activity mapping’ should be carried out clearly indicating the process, time frame and incremental improvement towards transfer of “funds, functions and functionaries” to the three tiers of Panchayati Raj Institutions.

S. No.	Criteria	Weightage (in %)
i)	Rural population	40
ii)	Rural SC and ST population	10
iii)	States under DDP, DPAP, HADP and special category Hill States in terms of rural areas	40
iv)	Rural population managing rural drinking water supply schemes weighted by a Management Devolution Index	10
	Total	100

\* Within the DDP areas, considering the ratio of the population supported in these two areas, Hot Desert Areas would be given weightage of 90% and Cold Desert areas would be given weightage of 10%.

**List of states with DDP Blocks**

S. No.	State	Number of Districts	Number of Blocks	Area in sq. kms.
1.	Andhra Pradesh	1	16	19136
2.	Gujarat	6	52	55424
3.	Haryana	7	45	20542
4.	Himachal Pradesh	2	3	35107
5.	Jammu & Kashmir	2	12	96701
6.	Karnataka	6	22	32295
7.	Rajasthan	16	85	198744
	Total	40	235	457949

- ▶ This Incentive Fund is a part of the Programme allocation and should be utilised for specified components of the NRDWP.

**9.7. Operation and Maintenance Fund**

- ▶ Up to 15% of NRDWP fund can be utilised by States/UTs for O&M and States/UTs will make matching contribution, which along with funds provided under the Finance Commission's recommendations as grants to PRIs will be used to meet the O&M expenditure on drinking water supply schemes. States should devolve the required O & M fund to the PRIs for O & M of schemes managed by them.
- ▶ All water supply schemes within the GP shall be maintained by the Gram Panchayat. For multi –village or bulk water supply schemes the source, treatment plants, rising mains etc., shall be maintained by PHED or the concerned agency while the distribution and other components within the village are to be maintained by the GP. State Governments shall endeavour to develop sustainable sources of funding for maintenance of rural water supply schemes and shall ensure that the Central and State Finance Commission and O&M funds released by MDWS are released to Panchayats.
- ▶ In case of 'Providing Urban Facilities in Rural Areas' (PURA) projects, the O&M fund shall not be included in the PURA grant payable to

the Concessionaire.

- ▶ States may use the O & M Manual prepared by the MDWS or prepare a State specific O & M Manual to guide systematic Operation & Maintenance.

**9.8. Provision of Drinking Water in Rural Schools & Anganwadis**

- ▶ All the States are required to compile data from the State Education Department and Women and Child Development Department regarding the rural Government schools & anganwadis in existence and the number of them having drinking water facilities and feed this data online in the IMIS.
- ▶ The remaining Government rural schools and Anganwadis (located in Government / public/ community buildings) are to be provided with drinking water facilities by end 2012-13.
- ▶ A part of this work will be accomplished through the funds provided by Central Finance Commission and the rest would have to be covered under the NRDWP.
- ▶ Schools and anganwadis with drinking water sources affected by bacteriological or excess iron contamination may be provided with water purification systems. Expenditure for this purpose would also be shared by the Central and State Government on 50:50 basis from the funds allocated for NRDWP (Coverage) and Quality.

- States would be required to fix targets for coverage of rural schools and report achievements online to the MDWS on a monthly basis.
- This activity is to be carried out in coordination with SSA and ICDS.

## 9.9. Public Facilities for Drinking Water

- In the rural context, drinking water is to be provided under NRDWP to every public place, including school, anganwadi, public building, PRI office, community halls, markets, temples, other religious institutions, market places, mela ground, cremation ground etc.,
- The programme will also address the needs of floating population by installing street stand posts at convenient locations.

## 9.10. Earmarking of Funds for SCs and STs- SCSP and TSP Component

- At the Central level 22% of NRDWP funds are earmarked for Scheduled Caste Sub-Plan and 10% for Tribal Sub-Plan to be utilised for provision of drinking water supply to SC/ ST concentrated habitations.
- To accelerate the assured availability of potable drinking water on a sustainable basis in SC and ST concentrated habitations, the States/UTs are required to earmark at least the percentage of the NRDWP funds for drinking water supply to the SC concentrated habitations and ST concentrated habitations as is communicated by the Ministry of Drinking Water and Sanitation based on the directions issued by the Government of India from time to time. Habitations in which more than 40% of the population belongs to SCs are considered as SC concentrated and with more than 40% STs are considered as ST concentrated.
- Where the percentage of SC or ST population in a particular State is high and warrants earmarking/utilization of more than the stipulated provisions, additional funds may be utilized.

- The State Governments/UT Administration should separately monitor the status of assured availability of potable drinking water in SC/ST habitations.

## 9.11. Gender Empowerment and Budgeting



- Women, especially those belonging to SCs, STs and OBCs, should constitute at least 50% of the members of the Gram Panchayat/ Village Water and Sanitation Committees (GPWSC/VWSC).
- GPWSC/VWSC should be a Standing or Sub-Committee of the Gram Panchayat except for 6th Schedule Areas. Provision for due participation of representatives of SCs, STs and Other Backward Classes in GPWSC/VWSC should be made.

## 10. Support Activities and Water Quality Monitoring and Surveillance Activities

- There are many fields where technical support would be required by the States to achieve the long term goal of the sector. Engaging State Technical Agency for preparation of projects, technical scrutiny and evaluation of rural water supply schemes. Hydro-geo-morphological maps, satellite-data imagery, GIS mapping systems, use of GPS system for unique identification of habitations and water sources and delivery points, support for successfully deploying the Integrated Management Information System (IMIS) and such other activities.
- NRDWP (Support): 5% of NRDWP funds will be released to States every year for undertaking software support activities. No additional fund will be provided by GoI for these activities beyond the allocated amount. All the Support activities indicated below continue for the 12th Five Year Plan. For this, each State should set up a properly staffed Water and Sanitation Support Organisation (WSSO) under the State Water and Sanitation Mission. WSSOs have to be staffed by experts in social development, human resource development, communication and IT skills and other areas as required by them in addition to engineering and technical staff that they may already be having; These funds will be utilised, inter alia, for

  - i) Support for Consultants at WSSO, DWSSM level
  - ii) Setting up and running of Block Resource Centres
  - iii) Providing support for awareness creation (IEC) and training activities (HRD) taken up by the WSSO or the CCDU under the WSSO;
  - iv) Providing hardware and software support for MIS at the district and sub divisional level to bring in more

accountability, effective monitoring and transparency in delivery of services.

- v) Research and Development activities relevant to the State.
  - vi) Engaging State Technical Agency for preparation of projects, technical scrutiny and evaluation of rural water supply schemes. Hydro-geo-morphological maps, satellite-data imagery, GIS mapping systems, use of GPS system for unique identification of habitations and water sources and delivery points, support for successfully deploying the Integrated Management Information System (IMIS) and such other activities.
  - vii) Other Support activities.
- NRDWP (WQM&S): 3% of NRDWP funds will be released to States every year for undertaking Water Quality Monitoring and Surveillance Activities. This shall include setting up and upgradation of district and sub district water quality testing labs, supply of field test kits and refill and training to grass root level workers for simple water quality tests.

Activities to be undertaken by the States under the NRDWP (Support) and NRDWP (WQM&S) funds are mentioned below:

### A) NRDWP (Support Fund)

#### 10.1. Water and Sanitation Support Organisation (Communication and Capacity Development)

The HRD and IEC programmes under the rural water supply programme were merged in 2004-05 and GoI provided 100% grant-in aid to establish Communication and Capacity Development Unit (WSSO (CCDU)) in all States/UTs. The CCDU shall now be merged into the Water and Sanitation Support Organisation (WSSO). Before taking up piped water supply projects in a village, GPWSC/VWSC should

be formed, their members trained and they should be involved in selection of source and system, estimating demand quantity, planning, monitoring, construction and in operation and maintenance. This requires targeted IEC and HRD activities in such villages. The aim is to create awareness among rural people on all aspects of rural water supply and its related issues and to enhance the capacity of the Panchayati Raj Institutions/Local Bodies/GPWSC/VWSC with the objective of enabling them to take up planning, implementation and operation and maintenance activities related to rural water supply systems. Thus, WSSO and DWSC can be strengthened with Consultants in specialised areas and Block Resource Centres set up to liaise between the GPs/ GPWSC/ VWSC and the Department I/c Rural Water Supply. NRDWP (Support) funds will be provided for activities under the WSSO (CCDU), as per the guidelines given in Annexure IV.

## 10.2. Management Information System

For effective planning, monitoring and implementation of NRDWP, Information Technology (IT) based Management Information System provides the following support:-

- ▶ Maintenance of habitation -level status of water supply data to ensure planning and monitoring at micro and macro level.
- ▶ Assistance for computer facilities up to subdivision level, in phases, to ensure latest technology for processing and storing data in an RDBMS and its communication from one office to another through Internet.
- ▶ Assistance for development of village based GIS maps and its storage and processing, including procurement of digital maps from Survey of India and procurement of GPS instruments for identification and capture of the location of drinking water sources.
- ▶ Development and maintenance of customized software for enabling States and UTs to fully utilise the computing power for

planning, monitoring and implementation of various activities in the sector and making the relevant data available at the central server through the IMIS application.

- ▶ NRDWP (Support) funds will be provided for MIS activities. Guideline on MIS and Computerization project is given in Annexure V.

## 10.3. Research and Development

- ▶ With the new issues and challenges emerging in the rural drinking water and sanitation sector, a Research & Development Advisory Committee (RDAC) has been set up under the Chairpersonship of Secretary, Ministry of Drinking Water and Sanitation, Government of India. The functions of the Research & Development Advisory Committee (RDAC) on rural drinking water and sanitation sector will be, inter alia:
  - i) Identify field problems from the user departments and community organizations, viz. Non Governmental Organizations (NGOs) Community based organization (CBOs), voluntary agencies, etc.
  - ii) Generate new ideas for research, development and innovation, and fix priority for such projects and decide thrust areas.
  - iii) Identify institutions and scientists for specific research, development, innovation and pilot projects, and invite them to submit proposals.
  - iv) Help the identified scientists/ organizations to formulate inter-sectoral and multi-disciplinary research projects relevant to the sector.
  - v) Help the Ministry to prepare specialized and emerging science and technology related documents of current interest.
  - vi) Advise the Ministry on all such matters which will be helpful in promoting and adopting useful technology as well as research and developmental activities with specific reference to rural water supply and sanitation sectors.



vii) Promote convergence with other agencies involved in similar activities and dovetail the same for the benefit of the WATSAN sector.

- In order to consider/ approve the Research and Development projects on Rural Drinking Water and Sanitation, it has been decided to constitute a Project Sanctioning Committee under the Chairpersonship of Secretary, Ministry of Drinking Water and Sanitation, Government of India. The Committee will consider the recommendations of the Research and Development Advisory Committee (RDAC) while approving the projects.
- To strengthen the R&D facilities in the concerned Departments in various States, State Governments are encouraged to establish R&D cells with adequate manpower and infrastructure. R&D Cells are required to remain in touch with the premier State Technical Agency.
- The network of technical institutions may follow the guidelines issued by the Ministry from time to time for effective implementation of the rural water supply programme. R&D Cells are also required to be in link with the Monitoring and Investigation Unit and study the Monitoring and Evaluation Study Reports for initiating appropriate follow up action.
- The R&D Cell should keep in touch with the documentation and information centre of the MDWS.
- Guideline indicating the thrust areas of R&D is at Annexure VI.

## **B) NRDWP (WQM&S Fund)**

### **10.4. Water Quality Monitoring & Surveillance (WQM&S)**

Under the National Rural Drinking Water Programme the issue of Water Quality Monitoring & Surveillance has been given due

emphasis. The monitoring and surveillance results from the habitations are also to be put on the database of the Ministry and monitored to ensure drinking water security at the household level.

The National Rural Water Quality Monitoring & Surveillance Programme launched in February 2005 has now been merged with NRDWP.

Detailed WQM&S Guideline is at Annexure III. Broadly, the programme is as follows:

- The approach, strategy and mode of implementation of the WQM&S programme as detailed in the "Implementation Manual on National Rural Water Quality Monitoring & Surveillance Programme" issued by RGNDWM, Ministry of Drinking Water and Sanitation, Government of India (November 2004) needs to be adopted.
- All drinking water sources should be tested at least twice a year for bacteriological contamination and once a year for chemical contamination.
- Under NRDWP, States may establish/ upgrade Water Testing Laboratories at the State, district and Sub- District level with a provision of testing few selected chemical parameters (need based) and biological parameters. Under NRHM there is a provision of testing water quality (biological parameters) at the Primary Health Centres. Such facilities, along with any other labs like college/school labs, in the area, may be used for the programme.
- The existing Field Testing Kits (FTK) may continue to be used for primary detection of chemical and biological contamination of all the drinking water sources in the villages. Provision of refills and replacement of FTKs can also be done with this fund.
- IEC and HRD for WQM&S are to be taken up as part of the WSSO (CCDU) activities.
- The services of five GP level persons who have been trained under National Rural Drinking Water Quality Monitoring & Surveillance programme since February

2006 i.e. ASHA, Anganwadi Workers, School Teachers, GP members, Social Workers etc. will continue to be utilized for the surveillance programme. Training of new personnel and refresher training should be provided annually.

- ▶ Monitoring is to be done by entering the test results of all sources tested by the designated labs on the IMIS of MDWS. The habitation and household data must be collected by two village level members (i) GPWSC/VWSC member selected in the Gram Sabha and fully accountable to the Panchayat and (ii) ASHA of NRHM. They will also authenticate the test results of Field Test Kits used in the village.

### 10.4.1 Water Quality Monitoring & Surveillance (WQM&S) Protocol

A WQM&S Protocol is prepared to guide State governments in implementing the programme.

## 11. Other Support Activities

### 11.1. Rigs and Hydro Fracturing Units

- ▶ The expenditure for purchase of Rigs/Hydro fracturing units would be made by the Central Government and State Government on 50:50 basis from the NRDWP Coverage fund.
- ▶ A rig monitoring plan for the State should be drawn up at the beginning of the year to effect optimum utilisation of these machines and the crew.

### 11.2. Monitoring and Investigation Units

- ▶ A special monitoring cell and investigation unit at the State headquarters should be set up and headed by a well qualified and senior officer with necessary supporting staff.

- ▶ The Monitoring unit shall be responsible for collecting information either online from the executing agencies through prescribed reports (Progress Monitoring System), maintenance of the data and timely submission of the prescribed data online to the Central Government by due dates.
- ▶ The unit shall also be responsible for monitoring aspects of quality of water, adequacy of service and other related qualitative aspects of the programme at the field level.
- ▶ The Unit shall also maintain water quality data in coordination with the concerned Department, Central/State Ground Water Board. Details of different technologies developed by institutions for tackling different problems should be provided by the Unit to the field level executing agencies.
- ▶ The Monitoring and Investigation Units should also have technical posts of hydrologists, geophysicist, computer specialists with data entry operators, etc.
- ▶ A Quality Control Unit should be an integral part of M&I Units and should work in coordination with the R&D Cell. This unit will be responsible for controlling/regulating the quality of construction works in water supply schemes and will ensure practical application of latest technologies in the field.
- ▶ The expenditure will be borne by the Central Government and the State Governments on 50:50 sharing basis. The Central share will be met from the NRDWP (Support) funds.

### 11.3. Programme and Project Monitoring and Evaluation

Central Government takes up monitoring and evaluation studies through reputed organizations / institutions from time to time.

- ▶ The State Governments may also take up similar monitoring and evaluation studies on the implementation of the rural water supply programme. Such proposal needs to be approved in the SLSSC meeting.

- 100% financial assistance will be provided by the Centre to the States for taking up such evaluation studies under Support activities fund.
- The reports of these studies should be made available to the Ministry and immediate corrective action should be initiated as a follow up to improve the quality of programme implementation.
- These projects should address software activity needs, drinking water supply, sustainability measures, enabling target communities to become open-defecation free, environmental sanitation, health education, income generating activities, etc.
- Approval of State Finance and Planning Departments should be obtained to ensure that the proposal has been scrutinized for its viability.
- The progress should be monitored at the level of Secretary in the State to ensure the completion of projects on time to avoid cost overrun and to take appropriate remedial measures.

#### 11.4. External Support Agencies

- Various external support agencies like World Bank, Japan International Cooperation Agency, KFW etc. are willing to support projects in the rural water supply sector. States that desire to avail such assistance may prepare project proposals as explained below:
- Projects submitted for external funding should include a strong component for institutionalising community-based demand driven Rural Water Supply Programme with cost sharing by the communities.





The Ministry of Drinking Water and Sanitation is to conduct regular Monitoring and Evaluation of the implementation and impact of the rural water supply programme in the States.

# Delivery Mechanism



## 12. Institutional Set Up

### 12.1. National Level

The Ministry of Drinking Water and Sanitation to

- ▶ Provide policy guidance and financial and technical support to the States.
- ▶ Conduct regular Monitoring and Evaluation of the implementation and impact of the rural water supply programme in the States.
- ▶ Support the States in setting up WSSO as per the NRDWP guidelines.
- ▶ Assist the States in case of natural disaster for restoration of damaged water supply systems.

### 12.2. National Technical Support Agencies

To assist the MDWS and State RWS&S Department(s) prepare and advise on specialized and emerging science and technology issues as well as research and development activities with specific reference to the rural water and sanitation sector the following National Agencies have been identified:

- ▶ All Central Council of Scientific and Industrial Research (CSIR) Laboratories and Organizations viz., CSMCRI (Bhavnagar), ITRC (Lucknow), CMERI (Durgapur), NCL (Pune), NEERI (Nagpur) etc.
- ▶ Central Ground Water Board (CGWB)
- ▶ Geological Survey of India (GSI)
- ▶ Department of Science and Technology (Govt)
- ▶ Department of Space Technology (Govt)
- ▶ Central Water Commission (CWC)

- ▶ National Remote Sensing Centre (NRSC)
- ▶ National Institute of Communicable Diseases (NICD)
- ▶ National Institute of Rural Development (NIRD)
- ▶ National Arid Zone Research Institute (Jodhpur)
- ▶ Centre for Science and Environment (CSE)
- ▶ Centre for Environment and Education (CEE)
- ▶ Indian Institutes of Technology (IIT)
- ▶ Indian Institute of Science (IISc)
- ▶ Regional Engineering Colleges (REC)
- ▶ India Institute of Hygiene and Public Health (IIH&PH)
- ▶ Any other Central Agency dealing with RWS&S sector development.

### National Level Technical Experts

The Ministry will empanel Technical Experts, individuals and institutions, to provide technical assistance to State Governments, provide technical advice in policy formulation and implementation, to undertake specific technical reviews, conduct technical enquiries, provide capacity building support to the Ministry and to State Departments incharge of I/c Rural Water Supply and Sanitation.

### 12.3. Role of National Informatics Centre

National Informatics Centre (NIC), at New Delhi would act as technical consultant for the MDWS at the center and State NIC would act as

technical adviser to the State Government and would primarily be responsible for extending support to the States in terms of e-governance requirements.

- ▶ NIC will also maintain the central databases and will be responsible for maintaining the National Rural Habitation Directory of the country.
- ▶ The role of NIC will also encompass the activity of standardisation of location and other codes thereby enabling building of two way linkages with the State database on the basis of standard codes.
- ▶ The State governments must strictly follow this coding pattern for achieving this goal of interoperability between the State and Central MIS.
- ▶ The State level NIC Officer is the member of the SLSSC Committee for MIS and Computerization projects only and can support the State Government as e-governance/ICT consultant for IT related activities.
- ▶ At the State level, NIC state unit will extend technical support to the MIS programme of the state, including development of software applications and training as per mutually agreed proposals.

## 12.4. State Level

Public Health Engineering Departments/Rural Water Supply and Sanitation Departments/Boards are the primary executing agencies for commissioning rural water supply schemes at the state level. The changed water resource situation and need to adopt decentralized strategy emphasizing a user-driven demand-oriented approach necessitates these Engineering Departments to have a greater understanding about communication methodologies, PRA techniques and shifting their role to one of facilitator rather than just a service provider. For this, it will be necessary to strengthen and restructure the existing PHEDs/Boards by making them responsive to the needs

of the community and the evolving scenario by studying their strengths and weaknesses.

Each State is to have the following Institutions:

- ▶ State Water and Sanitation Mission (SWSM).
- ▶ State Level Scheme Sanctioning Committee (SLSSC).
- ▶ State Technical Agency (STA).
- ▶ Water and Sanitation Support Organization (WSSO).

The composition and functions of each of these bodies is indicated at Annexure VII.

## 12.5. District Level

A District Water and Sanitation Mission (DWSM) shall be constituted at the district level and should function under the supervision, control and guidance of Zilla Panchayat/Parishad. States which do not have a proper PRI set up in place, as in case of 6<sup>th</sup> Schedule Area and desire to supervise the working of the DWSM through alternative mechanism, may put in place a suitable body through which the District Water Security Plan will be prepared and implemented. The Village Water Security Plans should be analyzed and consolidated at the district level by DWSM. It should prepare a district based water security plan for implementation. At the district level, convergence of all the other related programmes and funding should be ensured. Some of the major related programmes are MGNREGS, Integrated Watershed Management projects of Department of Land Resources, Ministry of Rural Development, Central and State Finance Commission funds, NRHM, various Watershed and Irrigation schemes of the Ministry of Agriculture, various schemes of the Ministry of Water Resources etc. The DWSM would be supported by Consultants and office staff. The composition and functions of DWSM are indicated at Annexure VII.

## 12.6. Sub District Level

A Block Resource Centre shall be set up at the block/taluka/mandal level to provide continuous support to GPs/GPWSC/VWSCs on both water and sanitation issues and to act as a link between them and the DWSM. The Centre will be entrusted with the task of continuous awareness generation, motivation and training of GPs, GPWSC/VWSCs and local community members to enable them to ensure safe drinking water and improved sanitation in their villages/habitations. The expenditure on the BRC staff and on its activities may be met out of the NRDWP Support fund. The composition and functions of the BRC are indicated at Annexure VII.

## 12.7 Village/Gram Panchayat Level

- ▶ A Gram Panchayat/Village Water and Sanitation Committee (GPWSC/VWSC) is to be set up as a Standing Committee/ Sub-Committee in each Gram Panchayat for planning, monitoring, implementation and operation and maintenance of their Water Supply Scheme to ensure active participation of the villagers. This Committee may be merged with the Village Health Committee set up under NRHM, so that water, sanitation and health issues are tackled together at the village level. The membership of a GPWSC/VWSC may consist of about 6 to 12 persons, comprising elected members of the Panchayat, women with due representation to SCs, STs and poorer sections of the village. This Committee shall function as a Standing Committee/ Sub-Committee on Water and Sanitation of the Gram Panchayat and should be an integral part of the Village Panchayat. The composition and functions of the GPWSC/VWSCs can be regulated by a set of by-laws under the State Panchayati Raj Act.
- ▶ In case of a PURA project, the primary responsibility of delivery shall rest with the Concessionaire, who shall work jointly with the GPWSC/VWSC/ Village Panchayat.

## 12.8. Role of NGOs and CSOs

The experience gained under the Swajaldhara and externally supported projects in rural water supply sector revealed that NGOs and Civil Society Organisations have played a major role in community mobilisation and assisting the community in planning and management of the water supply schemes. They can also play a role in the following activities:

- ▶ Information Dissemination: NGOs and CSOs can inform communities through diverse, effective and multiple communication methods about the guidelines and their roles, powers and responsibility in participating and contributing to the programme.
- ▶ Institutional building: CSOs can play an important role in building up institutions on the planning, managerial, technical, maintenance and social engineering aspects from the Gram Sabha and Gram Panchayat, right up to the institutions set up at the district and state level. Grass root organisations can provide tremendous support to the Gram Sabha for collective action and to the PRIs so that they are enabled to effectively implement the provisions of the guidelines.
- ▶ Engagement at state level: CSOs can be involved in developing state mechanisms and plans for operationalising the programme in its true spirit. This will help in an objective analysis of the bottlenecks as well as identification of appropriate solutions.
- ▶ Planning and technical support: Several CSOs have considerable technical experience gained from working on water resources, watershed and other related programmes. Wherever, possible, this experience should be utilised, especially for making the village water security plans and implementing them.
- ▶ Monitoring: The community through the Gram Sabha and SHGs must be



empowered to monitor the programme. This empowerment process can be facilitated by CSOs and NGOs.

**Institutionalisation of engagement:** The facilitative capacities of NGOs in the above mentioned areas need to be institutionalised in the entire process and effort. For this, there needs to be space for civil society organisations, who are partners in the process, with clarity on their roles and responsibilities.

**Selection of CSOs:** The CSOs must be selected by a transparent and fair process and based on ability and capacity. The state may define the eligibility or qualifying criteria for selection of CSOs keeping in view the state specific situation. The CSO selected should be active in the proposed area of operation.

**Capacity building of CSOs:** Adequate resources need to be allocated so that the capacities of CSOs are built, so that they are facilitated and empowered to carry out their responsibilities.

## 12.9 Incentive to ASHA Workers

ASHA Workers who motivate households to obtain tap connections within their houses shall be paid an incentive of Rs. 75 per connection. This fund will be provided from the NRDWP (Support ) Fund.

## 12.10 Public Private Partnership

The Rural Drinking Water Supply sector requires enormous investments to provide assured and safe piped water supply at the household level in all rural households of the country, to meet the rising expectations of the rural population and to improve their standard of living. The sector also requires resolving tariff and collection issues, improving operational and cost efficiency and installing financial discipline and managerial efficiency for satisfactory operation and maintenance of existing systems as well

as new systems. In this context Public Private Partnerships allow States to retain regulatory and supervisory responsibility while accessing skilled operator and service providers. Some of the models of PPP that may be considered by States are Service contracts, Management contracts, Lease contracts – mainly for existing systems and BOT (Build Operate and Transfer) contracts – mainly for new systems. PPP agreements (whether with community based or private operators) in all PPP models, should be drawn with transparent, objective, non-discretionary provisions to bring transparency to service deliverables and to clearly lay out the roles, responsibilities, performance indicators, customer accountability with incentives and disincentives for the operator.

Aspects like equity in access of SC, ST and poor households to drinking water supply, medium-term and long term recurring liabilities likely to develop on the Government or the community due to PPP agreements, sensitive nature of water being a finite basic necessity with many competing demands, management of rejects of water treatment plants etc. should be kept in mind while deciding on the need for and nature for PPP agreements.

States should develop and disseminate appropriate knowledge and tools to prepare, tender and manage service/PPP agreements with community based or private handpump mechanics, contractors, pipe water supply implementing agencies/operators and other service providers. While formulating State specific PPP policies the PURA scheme Guidelines and documents prepared under it may be considered for guidance.



**Women Handpump/tubewell Mechanics are making a difference**



A water safety plan, performance improvement plan when augmenting existing infrastructure and an operational plan for operating the scheme will be part of the VWSP.



# Planning, Fund Release and Monitoring



## 13. Village and District Water Security Plan

- ▶ In many States, Gram Panchayats or their Sub-committee i.e. Gram Panchayat/Village Water and Sanitation Committee have become fully responsible for planning, implementation, management, operation and maintenance of the rural water supply systems.
- ▶ Village level planning including water budgeting is the key factor in ensuring optimum utilization of water.  
\* Appropriate institutional support is required to facilitate the process of preparation of Village Water Security Plan (VWSP), which is to be prepared by the village community with the help of NGOs.
- ▶ Village Water Security Plan will be prepared, which inter alia, will include the demographic, physical features, water sources, and other details of the village; available drinking water infrastructure and gaps; proposed work to augment the existing infrastructure and water sources; funding by dovetailing various funds available at village level and requirement of funds from rural water supply programmes. The Village Water Security Plans should be prepared by using Ground Water Prospect Maps, in districts where they have been supplied, after ground verification, on a micro-watershed basis.
- ▶ The VWSP will also have details of management, operation and maintenance of the systems and sources. A water safety plan, performance improvement plan when augmenting existing infrastructure and an operational plan for operating the scheme will be part of the VWSP.

- ▶ Based on all the VWSPs of the districts, the District Water Security Plan will be prepared.
- ▶ Under the District Water Security Plan, all in-village work should be carried out by the Gram Panchayat or its sub-committee i.e. GPWSC/VWSC, whereas bulk water transfer and metering, inter-village distribution, maintenance of water grid, etc. will be handled by the State Government and or its agencies/public utilities.
- ▶ The District Water Security Plan will be implemented by dovetailing funds from different sources/rural water supply programmes and NRDWP funds.
- ▶ The funds available under NRDWP Coverage and Quality will be used for funding of Village Water Security Action Plans for in-village infrastructure and for bulk water transfer, treatment plants, distribution network.

## 14. Annual Action Plan (AAP)

The main objective of the Annual Action Plan is to provide a definite direction to the programme, and also to ensure regular monitoring of the progress made by the respective State towards the goal of achieving drinking water security to every rural household.

Under the broad goal set by each State, a five year Comprehensive Water Security Action plan is to be prepared and during each financial year the sub-goal and the priorities would be fixed based on mutual consultation by the Centre and the State which includes the following:

- ▶ Every year, the States/UTs shall prepare the Annual Action Plans, which will, inter-



alia, include broad directions/thrust and tangible targets planned to be achieved in the financial year. The AAP formats will be prescribed by the Ministry.

- ▶ Taking into consideration the funds available from different sources and working out the Central fund based on the present allocation plus 10% increase every year AAP will have to be prepared by each State.
- ▶ Each State will have to submit to MDWS the Annual Action Plan by January every year, through online IMIS.
- ▶ After consultation with each State during Feb and March of the previous financial year, funds are to be released from April to States for the financial year.
- ▶ The AAP will be prepared in a participatory manner and after carrying out detailed SWOT analysis.
- ▶ The progress made and achievements in the previous year will be basis of the AAP and it will incorporate schemes to be taken up, allocation of funds under the State Sector, Central Sector as well as carried over funds, if any.,
- ▶ While preparing the AAP, completion of the incomplete works shall be given priority over new works.
- ▶ It should be ensured that the works taken up are completed as per schedule and that there should not be any delay in execution which would result in cost escalation, non-utilisation of assets created, etc.
- ▶ The Annual Action Plans should indicate the following aspects :
  - a) Target for the year of coverage of habitations with 0% population covered, 0-25% population covered, 25-50% population covered, 50-75% population covered and 75-100% population covered and quality affected habitations, SC, ST and minority concentrated habitations, with their names, block, district, etc. with reference to census village code from the appropriate survey

list in the website. Higher priority should be given to coverage of 0% population covered, 0-25% population covered, quality affected, SC, ST and minority concentrated habitations in planning. The names of habitations targeted should be marked on line:

- b) The schemes to be taken up to cover the targeted habitations, ongoing and new, piped or others, with their location, coverage, estimated cost, estimated expenditure etc;
- c) Population to be benefited indicating separately the SC/ST, other backward classes and minority population;
- d) Results Framework Document (RFD) Indicator-wise Targets;
- e) Financial Progress and Plan ;
- f) Sustainability structures to be taken up, their type, location and estimated cost. Larger number of sustainability structures should be taken up in over-exploited and critical blocks and quality affected habitations. Ground Water Prospect Maps (Hydro-geomorphological Maps) may be used in preparation of Sustainability Plans and siting of sustainability structures;
- g) Plan for coverage of schools and anganwadis with water supply;
- h) Plan for Community involvement, IEC and other Support activities;
- i) Plan for Water quality monitoring and surveillance training, sample testing etc;
- j) Plan for ensuring clean environment around drinking water sources including hand pumps, O&M and involvement of the Panchayati Raj Institutions;

## 15. Planning

- 15.1. Based on the 'National Policy Framework' each State should prepare State specific Sector Policy framework. Subsequently State Level Planning for taking up water supply schemes for the 12<sup>th</sup> Plan Period is to be prepared based on the State Policy framework.
- 15.2. State will have to plan for each year taking in to consideration the Ongoing schemes, new schemes as well as schemes which will require augmentation and link to the habitations which are proposed to be covered under these schemes adhering to the prioritisation in targeting habitations as described above.
- 15.3. Proposals received from Members of Parliament for installation of hand pumps / rural drinking water supply schemes in habitations within their constituencies should be given priority while planning for water supply schemes. Such proposal received from the Member of Parliament should be forwarded to the State Rural Water Supply Department for inclusion in the State annual shelf of projects.
- 15.4. Members of Parliament should be informed of the inclusion/non-inclusion of their proposals along with the reasons in each case in the event of non-inclusion. It would be preferable if the communication is issued from the State Nodal Department at a senior level.
- 15.5. While planning all habitations are to be linked to census village and cumulative population of the main village and other villages will be as recorded in the Census 2011. The National population growth factor indicated in Census 2011 may be adopted to arrive at the present population.
- 15.6. A Model DPR format incorporating all elements of planning, preparatory, implementation and Operation and

Maintenance phases has been prepared and disseminated to States. While preparing the DPR, a Life Cycle Cost approach may be followed. Detailed Project Report (DPR) of water supply schemes/projects are to be prepared in the Model DPR format by the State Rural Water Supply Department for which services of the State Technical Agency (STA) may be sought. While commencing the preparation of the DPRs the Rural Water Supply Department will hold consultation with the local community through the mechanism of the Gram Panchayat in order to ensure community participation and also to ensure that the choice of technology/ system is appropriate and easy to operate and maintain. These DPRs are to be scrutinized and vetted by the State Technical Agency. In preparing DPR for new water supply schemes and augmentation of existing schemes Ground Water Prospects maps should be used for siting locations of production wells/ borewells and locating sites for suitable sustainability structures, wherever required and feasible. SLSSC shall ensure this while according approval to schemes. For PURA projects, the DPRs shall be prepared by the Concessionaire and approved by the Empowered committee notified by Ministry of Rural Development. An Operation and Maintenance manual for rural water supply schemes has also been prepared and may be utilised by agencies managing such schemes.

- 15.7. Once the annual shelf of projects (DPRs) is finalized, it is to be placed in the State Level Scheme Sanctioning Committee (SLSSC) meeting for approval. The SLSSC would scrutinize the proposals to see that they are in accordance with the Guidelines and the proposals of the Members of Parliament have been given full consideration.

- Overall, it may be ensured that there is an approved shelf of schemes/ projects wherein the total estimated cost of handpumps, SVSS, sustainability structures, MVSS and RWSS shall be between two to three times the Coverage, Quality and Sustainability components of available funds (OB+ Central Allocation + State Allocation) under the NRDWP in a particular year. It is desirable to have an approved shelf of projects with a total estimated cost of *four times the likely available NRDWP funds (OB + Central allocation + State allocation). The multiple would depend on the type of scheme viz. handpump, single village schemes or multi village scheme and average time taken for completion.*
- 15.8. The approved annual shelf of projects (DPRs) approved by SLSSC are to be entered on line (IMIS) as per the prescribed proforma. The projects are to be linked to the habitations to be covered during the particular financial year.
- 16.3 The SWSM will communicate to the MDWS, the details of the Bank branch IFSC code and the Account numbers. The MDWS shall release the programme funds and support funds respectively into the programme and support accounts. The WQM&S funds will be released into the support account.
- 16.4 The MDWS shall credit the Support Account of SWSM with funds for carrying out software activities as indicated in para 10 of the guideline and for proper functioning of the Water and Sanitation Support Organization.
- 16.5 The State Government shall match the Programme Account with funds as per the funding pattern indicated in para 9 of the guideline in order to meet works related expenses for implementing rural water supply projects and sustainability projects and also to meet expenses which are not found eligible to be funded under the National Rural Drinking Water Programme, such as to meet cost escalation, tender premium and other programme expenses which are the responsibility of the State Government.

## 16. Flow of Funds

- 16.1 The State Water and Sanitation Mission (SWSM) shall select a Bank branch of any Public Sector Bank with internet connectivity at the State Headquarters, for maintaining the two accounts namely Programme Account, and Support Activities Account under the National Rural Drinking Water Programme. These shall be saving accounts and once selected, the Accounts shall not be changed to any other Branch or Bank without concurrence of MDWS.
- 16.2 There will be a written undertaking from the Bank that it will follow the Guidelines of Government of India for payments from the MDWS Funds. The concerned branch will maintain Internet connectivity and enter the data into the relevant module of the Online Integrated Management Information System (IMIS).
- 16.6 The mode of the Programme and Support activities expenditure will be regulated as follows:
- i) Expenditure account for programme fund and support fund needs to be separated. For programme fund expenditure should have linkage with physical progress of the projects/ schemes being implemented. Expenditure under support fund should be made strictly as per the items of activities and hardware specified in the respective support activities guidelines.
  - ii) NRDW programme fund needs to be matched by the State matching fund as per the pattern of funding indicated in para 9.3 of the guidelines.

- iii) The Bank will render monthly account, in respect of NRDWP Funds, to the PHED/Board, the SWSM and whenever requested, to the MDWS.
- 16.7 A tripartite Memorandum of Understanding will be entered into between the Bank, SWSM and the MDWS wherein the parties would agree to abide by the provisions of the Guidelines. In particular, the Bank will agree to abide by the instructions issued, from time to time, by the MDWS, regarding the operation of the Accounts.
- 16.8 The MDWS may, from time to time, issue such directives as necessary for smooth flow of funds and effectiveness of the Programme.
- 16.9 The Accounting System, to be prescribed by the MDWS, would be based on the well-established Public Works Accounting system, with its own Chart of Accounts and Balance Sheet. The Integrated (Online) Management Information System (IMIS) software would support the Accounting System and would be enabled so that PHED, SWSM and Bank branch concerned can make data entry on line for their respective transaction.
- 16.10 Money accruing as Interest credited in the Programme Account and support accounts will be credited to the same account and reflected in the Utilization Certificate of the year. The expenditure out of this interest amount will be made on items of work allowed in these Guidelines. Any deviation of expenditure will be guided by the instructions/ guidelines to be issued by the MDWS from time to time. The Bank shall intimate to the State level Agency the interest amount credited by it to the Account on quarterly basis.
- 16.11 The State shall have to enter the details of all offices (subordinate to the SWSM) utilising NRDWP funds, including their

bank account details in the Central Plan Scheme Monitoring System (CPSMS) managed by the Ministry of Finance, Government of India.

## 17. Release of Funds

- ▶ Every year, in the beginning of the financial year, allocation of funds under different components of NRDWP will be communicated to the States. The States/UTs will be required to indicate the component under which and to what extent, they would like to avail the funds.
- ▶ However, once allocation is made, the 1st installment amounting to 50% of the allocation under Programme Fund will be released to States/UTs, taking into consideration available excess Opening Balance with the States, without any proposal from the State/UT, if the concerned State/UT has drawn the 2nd installment in the previous year. Support Fund which is 100% grant in aid, will also be released in two installments based on certain criteria.
- ▶ While releasing the 1<sup>st</sup>. instalment, in consonance with the requirement of observance of discipline in fiscal transfer to States as per OM dated 13<sup>th</sup> May, 2012 of the Ministry of Finance. DOE, the opening balance in excess of 10% of the release in the previous year will be subsumed in the first instalment. Balance of First Installment may be released upon utilization of 60% of the available fund.
- ▶ In case, due to any reason, allocation under Programme Fund could not be decided in the beginning of the financial year and/or Parliament has not passed the full budget of the financial year, release will be made in April on ad-hoc basis based on the available funds as part of the 1st installment against programme fund.
- ▶ Once the allocation under Programme Fund is decided and adequate funds become available, the remaining part of the 1st installment will be released making it 50% of the allocation.

- The 2nd installment under Programme Fund to cover the balance of the annual allocation will be released on fulfillment of the following conditions:

- a) Receipt of a specific proposal under Programme Fund from the State/UT in the prescribed proforma (Annexure IX) and checklist (Annexure XII) with progress reports generated from the IMIS and returns; progress reports that are not generated from IMIS will not be accepted. Further, component –wise break up details ( in pattern of serial number 4,5,6 of Annexure IX) are also required under NRDWP in serial number 1,2,3 of Annexure-X .
- b) A checklist to be submitted by State while submitting proposal for release of funds to under the NRDWP is at Annexure XII.
- c) Utilization of 60% of the available resources under Programme Fund and corresponding expenditure under the State sector funds available till date (unutilised opening balance, if any, from the previous years plus funds released as the first installment).
- d) Receipt of certificate of actual expenditure under the State sector and the NRDWP from a Chartered Accountant empanelled by the C&AG for the previous financial year in case of funds released to SWSM. In case of funds released to State Government accounts from the Accountant General for the period upto the year preceding the previous financial or incase of funds released to SWSM from a Chartered Accountant empanelled by the C&AG for the previous financial year. However, if report from Accountant General/ CA is not received due to any unforeseen reasons, the release will not be withheld, if State Government/UT Administration is able to provide specific reasons for delay

and gives undertaking for furnishing the same after the receipt of the same from the office of the Accountant General/ CA. In case, in the AG's/ CA's report, some discrepancies/deficiencies are reported, the same will be adjusted in the subsequent releases.

- e) Receipt of Utilization Certificate (in the prescribed Proforma as at Annexure X) under the State sector and the NRDWP signed by the Head of the fund recipient Department/Board/Authority/ Corporation/Body and countersigned by the Principal Secretary/Secretary of the concerned Department.
- f) Certificate that the unfinished works are given priority for completion.
- g) Certificate that all the schemes approved by the State level Scheme Sanctioning Committee six months ago have been taken up for implementation.
- h) Proposal for release of the second installment of funds under the Programme Fund, complete in all respects as indicated above, should reach MDWS by the 31st December of the financial year. Proposals received after 31st December will be subjected to progressive cuts as indicated below:

Month of receipt of proposal	Cut on the 2nd installment amount
Up to December	Nil
January	5%
February	10%
March	15 %

Any restoration of cut imposed on account of late submission of proposal will be made by MDWS, in consultation with its finance wing, on a case to case basis depending upon the progress made by the State. The primary reason for considering such restoration would

- be if delay was due to reasons not under the control of the implementing agency.
- i) Release of fund under Support Fund will be done in two installments and the release of 2nd installment will be based on submission of activity-wise Physical and Financial progress and Utilization Certificate. Only those activities permissible under the guidelines indicated under Support activities will be permitted.
  - j) The expenditure on O&M should not exceed 15% of the total funds released in the previous year under NRDWP. Excess expenditure in the previous year, if any, will be deducted at the time of release of the 2nd installment of funds.
  - k) States/UTs have to ensure that online reporting is done.
  - l) Details of the meeting of the State Vigilance and Monitoring Committee held during the previous year, wherein issues relating to NRDWP were discussed.
  - m) A certificate that no centage charges have been made on NRDWP funds.
  - n) Funds will be released based on the specific proposals from the State Governments indicating the actual requirement during the remaining part of the year and utilization of prescribed percentage of funds already released.
  - o) While releasing the Central share, the quantum of unutilised funds available with the States/UTs in relation to the total allocation for the financial year will be kept in view.
  - p) Carry over funds in the next financial year will be allowed to the extent of 10% of the total amount released.
  - q) While releasing the 2nd installment, if any amount for which sanction order has been issued in the month of March, and/or, the same could not be transferred to the State within that Financial Year, the same will not be accounted as carry forward amount and shall not be taken into account while calculating the excess Opening Balance with the State.
  - r) While releasing the 2nd installment, the excess amount over and above the prescribed limit, as specified in para (p), will be deducted. However, if the State/UT has utilized more than 75% of the total available fund (Opening Balance + 1<sup>st</sup> installment) in the current financial year, the excess carry over amount may not be deducted while releasing the 2nd installment.
  - s) The States/UTs shall release the entire amount of central allocation received along with the matching State share to the implementing agency (s) without any delay and in any case not later than 15 days after its receipt.
  - t) The funds provided under NRDWP will be used to meet the expenditure on approved schemes and O&M as prescribed under the guidelines.
  - u) In case, any State/UT levies the centage charges on NRDWP funds, double the amount charged will be deducted while releasing the last installment of funds.
  - v) In the States where the programmes are implemented through Statutory Bodies like Boards, Nigam and Authority etc, Central allocation will be released directly to such Bodies. In such cases, expenditure incurred under the NRDWP and matching State share will be subjected to the audit either by the Accountant General of the



- State concerned or by the Chartered Accountants.
- w) While releasing the State share and or transferring the NRDWP funds to the implementing agency (s), the State Government will endorse the copies of the sanction orders releasing the funds to the MDWS.
  - x) Amount released under the NRDWP cannot be utilized/ adjusted against any cost escalation of the schemes or excess expenditure over and above the approved cost of schemes in the previous years.
  - y) For PURA projects the schemes funds shall be released by the DWSM to the DRDA in advance as per the terms of the Concession Agreement and State Support Agreement. The DRDA shall be authorized to release the funds to the Concessionaire as per scheme guidelines.

## 18. Audit

- 18.1 The SWSM will ensure that the accounts are audited by a Chartered Accountant selected from a panel approved by the CAG, within six months of the close of the financial year. This account will be supported by a statement of reconciliation with the accounts of PHED and a certificate of the Chartered Accountant on its accuracy. A format for the Audit Report from States with respect to the NRDWP is at Annexure XIII.
- 18.2 In addition to the Audit by the Chartered Accountant, the works under this Programme could be subject to audit by the Office of the Comptroller and Auditor-General of India (C&AG). The Audit of the work done by the C&AG may cover aspects of quality, in addition to financial audit.
- 18.3 Both the State level Agency and the PHED must provide all relevant information to the District level Vigilance and Monitoring Committees.
- 18.4 Statement from the Bank Authority needs to be submitted along with Audit report in respect of available balance with the SWSM as on 31st March of the financial year.

## 19. Monitoring

### 19.1. Online Monitoring

- ▶ Before 1996 the Annual Action Plan was prepared considering “census village” as the lowest unit. Since the census code provides population against the census village, coverage of rural population was indicated in term of “population covered”.
- ▶ It was found that large numbers of satellite habitations were without adequate drinking water facilities although the main village was shown fully covered.
- ▶ As a consequence fresh survey was carried out during 1994-96 and the lowest unit of planning, target fixing and coverage was shifted from population covered to “habitation covered”, which may not reflect the actual coverage.
- ▶ To iron out this deficiency, it has to be ascertained that the population of the census village as per 2011 Census should be same as the cumulative population of the main village and allied habitations.
- ▶ Thus the present habitation names have to be linked to a Census village. This exercise has to be done online and is to be carried out by all states, compulsorily.
- ▶ For integration of data with other Departments, like Health, Water Resources, Education, Panchayati Raj, Census etc it is important to have the common unit as Census Village.

- For preparation of GIS maps, the available digital maps with Survey of India are based on revenue village.
- All reporting viz. the annual action plan and the physical and financial progress reports must be online.
- States are required to re-verify the list of habitations entered online on an annual basis, and indicate the status of coverage in term of the population covered. If the status is changed from 100% population covered to lesser population covered, States should indicate the reason as listed on the IMIS.
- Water quality and quantity of every delivery point to be tested by the community periodically as per the WQM&S guideline.
- The test results are to be fed into the central IMIS database.
- Data along with action taken by the appropriate agency will be monitored online through the website.
- Release of funds w.e.f. 1.4.2010 will be based on the data furnished online by the States. This is non-negotiable.
- The State Government should provide necessary manpower, space and facilities to set up the Computer Hardware at the sub-division, district and state level. Since the data would reside on the State Servers, the State level Agency must ensure that the State Server is functional all 24 hours and the data is synchronized to the central server regularly.
- It shall be the responsibility of the Executive Engineer, PHED to ensure that all Master data including the District Water Security Plan and RWS projects are entered in the database and for the monthly updating and accuracy of data relating to the progress of works, record of quality control tests. In case of failure to update data on the IMIS, further releases to the State concerned could be affected.
- Each State Government would identify one officer of sufficient seniority and having adequate knowledge of Information Technology to function as State IT Nodal Officer. His function will be to oversee the regularity and accuracy of the data being furnished by the Districts. The IT Nodal Officer, who shall form part of the SWSM, shall also be responsible to oversee the upkeep of the Hardware and Software as well as the computer training requirements of the personnel dealing with the NRDWP.

## 19.2. State Level

- Effective monitoring of the Programme being critical, the State Governments will ensure that the officials are prompt in sending the requisite reports/information to the SWSM as well as the MDWS.
- The Integrated Management Information System (IMIS) will be the chief mechanism for monitoring the Programme. To this end, the officials are required to furnish, 'Online', all the data and information, as may be prescribed by MDWS from time to time, in the relevant module of the online IMIS.
- They shall be responsible for uninterrupted maintenance of the computer hardware and software as well as the internet connectivity. The software for the IMIS shall be supplied by MDWS and it shall not be modified at any level in the States; any requirement or suggestion for change shall be intimated to the MDWS.
- The District Vigilance and Monitoring Committee set up by the Ministry of Rural Development will also monitor the progress and exercise vigilance in respect of NRDWP.
- Vigilance and Monitoring Committee at State, District and Village level may be set up in accordance with the orders No Q-13018/6/2009-A.I.V & MC (RD) dated 26<sup>th</sup> August, 2009 issued by the Ministry of Rural Development, Government of India and updated thereafter and regular meetings of the same should be held.
- The State Government should carry out regular monitoring and evaluation through STA of all the activities viz., RWS projects with major emphasis on Sustainability projects

(100% GoI funded), software activities and submit the report to SWSM/SLSSC/PHED for carrying out mid-course corrections if required. This should be done at least once in every year and preferably biannually.

### 19.3. Community Monitoring and Social Audit

The community and community-based organizations (GPWSC/VWSC/User Groups) should monitor demand/need and coverage. Community Based Monitoring should preferably fulfill the following objectives:

- It should provide regular and systematic information about community needs, which would guide related planning;
- It should provide feedback according to the locally developed yardsticks for monitoring as well as key indicators for measuring the consumer's satisfaction of provision of drinking water services available to them on a sustainable basis;
- Effective community monitoring especially by the GPWSC/VWSC members would change the status of community members from being passive to active partners in the planning, implementation and management of rural water supply services;
- A social audit is a way of measuring, understanding, reporting and ultimately improving an organization's social responsibility and ethical performance. A social audit helps to narrow the gap between the perception of the line department's definition of services provided and the beneficiaries' level of satisfaction of the service provided. Social auditing also enhances the performance of the local self government, particularly for strengthening accountability and transparency in local bodies and it focuses on the neglected issues related to marginalised/poor groups whose voices are rarely heard;
- Every six months on a fixed date there should be a social audit by the community

organization to ensure that the works under taken by the PHED/Related Department and PRIs are as per the specification and funds utilised are appropriate to the works under taken;

- To begin with the State Government may adopt the following parameters for evaluating the performance of the drinking water services:
  - Distance from source
  - Time taken for fetching water
  - Access and usage
  - Quality and quantity
  - Hours of supply per day
  - Days of supply per week
  - Reliability of supply during summer months
  - Responsiveness of the service providers
  - User satisfaction

Based on these parameters including any additional relevant local parameters, the State Government may start a benchmarking of service standards based on the feedback of communities at the Block, district and state levels. This will be used to develop a performance index of the rural water supply situation across all states and also in providing incentives for States, Districts and Panchayats.

## 20. Regulation & Pricing

Many states now are encouraging NGOs, private foundations and the private sector to set up water quality treatment plants and supply quality water at affordable prices. Pricing of water and wastewater (rejection) management in these systems is an issue to be dealt with.

- The National Policy Framework also encourages setting up of bulk water utilities at various levels and Gram Panchayat to be responsible for distribution of water at the local level. The State Governments and Local Governments may or may not outsource the bulk water supply and local water supply to outside agencies in the public private partnership mode respectively. Further in

some states cost of electricity in running the scheme is subsidized while in others it is not, which will have an impact on pricing. Pricing and continuous quality water supply from the bulk water utility to local water utility and distribution within the Panchayat will be issues that will have to be dealt with. Therefore, SWSM may look into the issue of pricing, terms of engagement between the bulk water utility and PRIs, protecting the catchments of local water supply through control of activities that could be performed in these catchments.

- Poor cost recovery in the rural water supply sector is primarily due to negligible tariff levels which do not reflect actual costs of electricity, spare parts, manpower and

chemicals (based on type of water supply system) and are not routinely evaluated and collected resulting in exacerbating an already critical situation in terms of funds available for operation and maintenance of rural water supply schemes.

SWSM should decide the tariff structure of rural water supply, taking into consideration the differential connection charges and tariff structure for house connection and supply through handpumps/ street stand post and also lower/affordable tariff for SC, ST, OBC and BPL households. The recovery mechanism should be in place and Gram Panchayat/GPWSC/VWSC should be empowered/ authorized to collect user charge for O&M.



While planning for schemes in any year, priority is to be given to habitations where none (0%) or less than 50% of the population has access to adequate and safe drinking water.

Schools and Anganwadis have to be provided water supply.



# Annexures



## Annexure 1

### A. Norms for Providing Potable Drinking Water in Rural Areas

Under the ARWSP guideline the norms that have been adopted since the inception of the programme (1972) for providing potable drinking water to the rural population based on basic minimum need was 40 lpcd. From the 12<sup>th</sup> 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. Considering the fact that 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, as an interim measure the norm is 55 litres per capita per day (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 uses	12
Total	55

- ▶ The above norms may be assessed by the respective State Governments and they may fix their own higher norms based on water

availability, demand, capital cost involved, affordability etc.

- ▶ For purposes of comparability coverage means provision within a distance of 100 mts from the household or 30 minutes of time taken for fetching water in a day.

### B. Norms for Coverage

While planning for schemes in any year, priority is to be given to habitations where none (0%) or less than 50% of the population has access to adequate and safe drinking water. The habitations can be categorized in terms of population covered as 0%, 0-25%, 25-50%, 50-75%, 75-100% and 100%.

- ▶ Coverage of population is to be calculated on the following criterion:
  - Percentage of people within habitation getting basic minimum quantity of potable water within a distance of 100 mts from the household from either a public or a community source.

### C. Definitions of Joint Monitoring Programme for MDG

The WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation is the official United Nations mechanism tasked with monitoring progress towards the Millennium Development Goal (MDG) relating to drinking-water and sanitation (MDG 7, Target 7c), which is to: "Halve, by 2015, the proportion of people



without sustainable access to safe drinking-water and basic sanitation” (as existed in 1990).

In fulfilling this mandate, the JMP publishes updated estimates every two years on the use of improved drinking-water sources and sanitation facilities at the national, regional and global levels.

The JMP definitions of improved and unimproved sources of drinking water are relevant because the progress of the country towards achieving MDG is reported based on these definitions by the United Nation.

An “improved drinking-water source” is defined as one that, by nature of its construction or through active intervention, is protected from outside contamination, in particular from contamination with faecal matter. JMP has defined drinking-water sources that can be considered “improved” or “unimproved”.

### “Improved” drinking-water sources

- ▶ “Piped water into dwelling,” also called a household connection, is defined as a water service pipe connected with in-house plumbing to one or more taps (e.g. in the kitchen and bathroom), also called a household connection, is defined as a water service pipe connected with in-house plumbing to one or more taps (e.g. in the kitchen and bathroom).
- ▶ “Piped water to yard/plot, also called a yard connection, is defined as a piped water connection to a tap placed in the yard or plot outside the house.”
- ▶ “Public tap or standpipe” is a public water point from which people can collect water. A standpipe is also known as a public fountain or public tap. Public standpipes can have one or more taps and are typically made of brickwork, masonry or concrete. It is a public water point from which people can collect water.
- ▶ “Tubewell or borehole” is a deep hole that has been driven, bored or drilled, with the

purpose of reaching groundwater supplies. Boreholes/tubewells are constructed with casing, or pipes, that prevent the small diameter hole from caving in and protects the water source from infiltration by run-off water. Water is delivered from a tubewell or borehole through a pump, which may be powered by human, animal, wind, electric, diesel or solar means. Boreholes/tubewells are usually protected by a platform around the well, which leads spilled water away from the borehole and prevents infiltration of run-off water at the well head.

- ▶ “Protected dug well” is a dug well that is protected from runoff water by a well lining or casing that is raised above ground level and a platform that diverts spilled water away from the well. A protected dug well is also covered, so that bird droppings and animals cannot fall into the well.
- ▶ “Protected spring” is typically protected from runoff, bird droppings and animals by a “spring box”, which is constructed of brick, masonry, or concrete and is built around the spring so that water flows directly out of the box into a pipe or cistern, without being exposed to outside pollution.
- ▶ “Rainwater” refers to rain that is collected or harvested from surfaces (by roof or ground catchment) and stored in a container, tank or cistern until used.

### “Unimproved” drinking-water sources

- ▶ “Unprotected spring”. This is a spring that is subject to runoff, bird droppings, or the entry of animals. Unprotected springs typically do not have a “spring box”.
- ▶ “Unprotected dug well”. This is a dug well for which one of the following conditions is true:
  - 1) the well is not protected from runoff water; or
  - 2) the well is not protected from bird droppings and animals. If at least one of these conditions is true, the well is unprotected.

- “Cart with small tank/drum”. This refers to water sold by a provider who transports water into a community. The types of transportation used include donkey carts, motorized vehicles and other means.
- “Tanker-truck”. The water is trucked into a community and sold from the water truck.
- “Surface water” is water located above ground and includes rivers, dams, lakes, ponds, streams, canals, and irrigation channels.
- “Bottled water” is considered to be improved only when the household uses drinking-water from an improved source for cooking and personal hygiene;

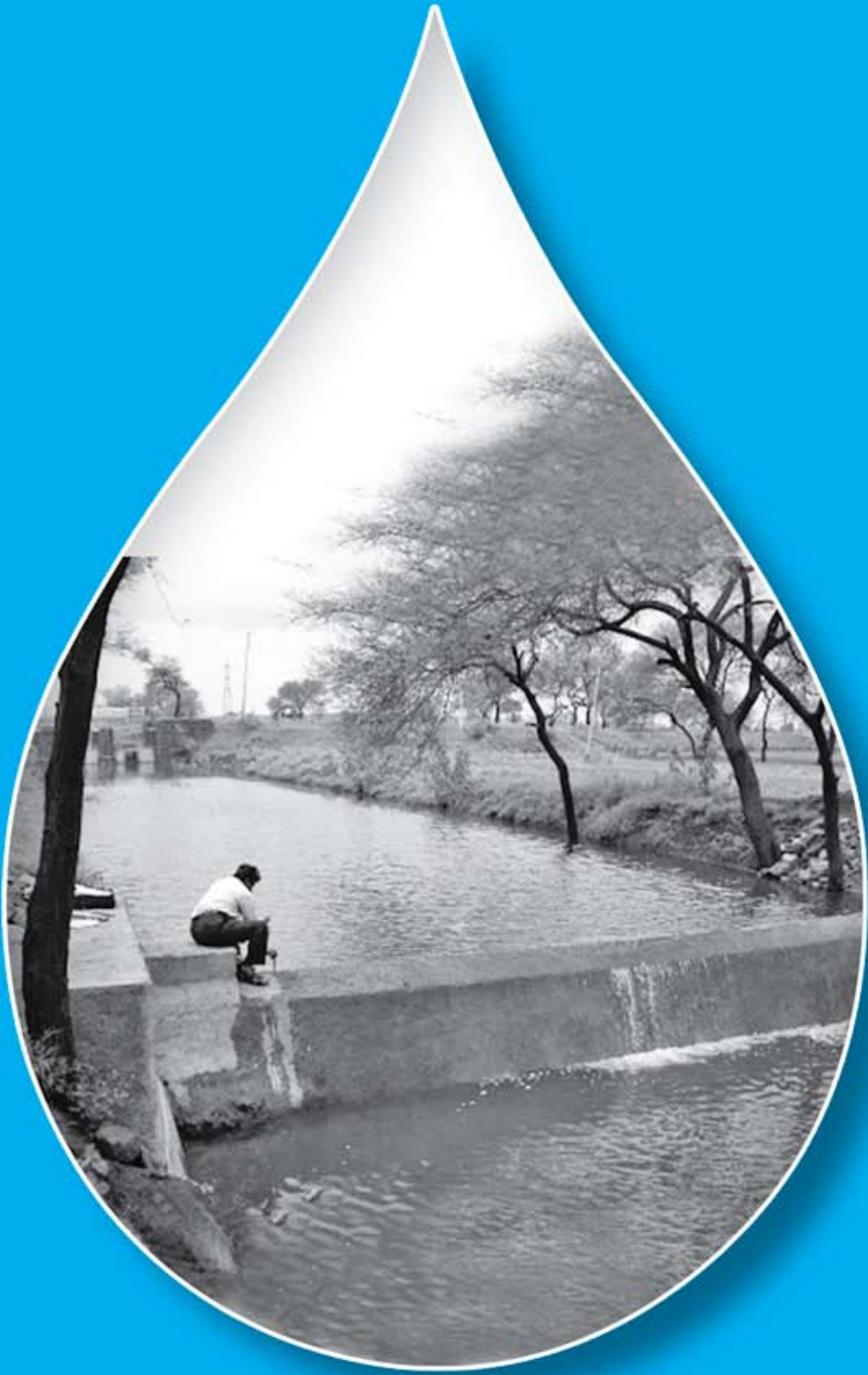
where this information is not available, bottled water is classified on a case-by-case basis.

## D. Parameters of Potability - Safe Drinking Water

Water is defined as safe if it is free from biological contamination (guinea worm, cholera, typhoid etc.) and within permissible limits of chemical contamination (excess fluoride, brackishness, iron, arsenic, nitrates, etc.) as per IS-10500 standard of BIS as revised in 2012.

### IS-10500 (2012)

S. N.	Parameters	Unit	BIS (IS:10500)-2012		WHO Desirable Limits
			Desirable Limits	Max. Permissible Limits	
1	pH	———	6.5 - 8.5	6.5 - 8.5	6.5 - 9.2
2	Arsenic	mg/L	0.01	0.05	0.01
3	Fluoride	Mg/L	1.0	1.5	1.5
4	E-Coli	Number/	Absent	Absent	Absent
5	TDS	mg/L	500	2000	1200
6	Nitrate	mg/L	45	45	50
7	Iron	mg/L	0.30	0.30	0.30
8	Calcium (as Ca)	mg/L	75	200	No Specification
9	Magnesium (as Mg)	mg/L	30	100	No Specification
10	Sulphate	mg/L	200	400	500
11	Alkalinity	mg/L	200	600	No Specification
12	Turbidity	NTU	1	5	10



## Annexure II

# Guideline for Implementation of Sustainability

## 1. Background

The term “Sustainable Development” was defined by Bruntland in 1987 as *development that meets the needs of the present without compromising the ability of future generations to meet their own needs*.

Groundwater used for freshwater drinking supplies can be easily overexploited by other competing users like irrigation, industry, etc. When this happens it can become contaminated with salt water, fluoride or other geogenic contaminants which makes it unsuitable for use. Water available in rivers and lakes is sometimes polluted, making it harmful to plants, animals and people. Sustainability and safe sanitation practices are the forerunner for safe drinking water supply.

India has a particularly strong tradition of water harvesting – communities have met their minimum water requirements effectively by collecting rainwater locally, diverting and storing water from local streams and springs and tapping sub-surface water. However, these traditional technologies and methods have fallen prey to inattention and ignorance over time, and need to be revived and rejuvenated. On the other hand are the most modern, state-of-the-art technologies and practices which could make a lot of difference in these water-stressed times. This approach offers today’s water managers a range of choices which will enable them to make their own water security plans in an effective manner – by taking from the best practices of both the worlds and adopting them viably for best results.

Traditional structures such as the tankas and khadins of Rajasthan, baoris (step-wells) of western India, the ooranis, cheruvus and temple tanks of south India, and the bamboo split pipe harvesting method practised in the north-east still serve as lifelines for local people. Communities can combine and converge this knowledge with modern technologies and scientific tools such as satellite imaging. Emphasizing on the urgent need for rainwater harvesting, replenishing and restoring existing surface water bodies and creating new ones, and recharging groundwater, this segment urges practitioners to think beyond the conventional and look for innovative solutions.

## 2. Approach

The 10% allocation for Sustainability which is on a 100% Central share basis will be used exclusively to achieve drinking water security by providing specific sustainability components for sources and systems with major emphasis on tribal areas, water quality affected areas, over-exploited, critical and semi-critical areas as specified by CGWB and any other area the State Government has identified as difficult and water stressed area.

For taking up sustainability projects it is to be ensured that the existing and proposed rural drinking water sources are directly recharged and for that detailed manuals namely “Sustainability manual”, “Mobilising Technology for Sustainability”, “Bringing Sustainability of Drinking Water System” and “Convergence of sustainability projects” (web site: <http://MDWS.gov.in> under icon Publication 2007-08) issued by the Ministry of Drinking Water and

Sanitation, Government of India may be referred for planning, design and implementation of sustainability projects under NRDWP.

### 3. Elements of Sustainability

- ▶ **Source Sustainability** = Ensuring availability of safe drinking water in adequate quantity throughout the year
- ▶ **System Sustainability** = Optimizing the cost of production of water, devising proper protocol for O&M, building capacity of PRIs and awareness generation
- ▶ **Financial Sustainability** = Proper utilization of Finance Commission and O&M funds under NRDWP guidelines and recovering at least 50% cost through flexible methods devised by the local self government and improving energy efficiency
- ▶ **Social and environmental Sustainability** = Proper reject management and involvement of all key stakeholders

Sustainability of drinking water sources and schemes is a process which facilitates the existing/new drinking water supply projects to provide safe drinking water in adequate quantity, even during distress periods, duly addressing equity, gender, vulnerability, convenience and consumer preference issues, through conjunctive use of groundwater, surface water and roof-water harvesting. The main aim of providing sustainability of drinking water schemes is to ensure that such schemes do not slip back from universal access of safe drinking water to the community throughout the design period of the schemes.

Any recharging structure meant for overall management of water resources and that does not directly recharge drinking water sources is not eligible for funding under the Sustainability component of this Programme.

The basic principles of sustainability are:-

- ▶ Conjunctive use of water defined as judicious use of ground water, surface water and roof-water as per drinking water demand and availability, seasonally or monthly.

- ▶ Recharge and rest of groundwater aquifers during monsoon. This could even dilute the contaminants considerably over a period of time. Many recharge structures provide both for groundwater recharge and surface water availability.
- ▶ Store surface water as per terrain conditions.
- ▶ Adopt roof-water harvesting in a big way especially for scattered habitations.
- ▶ Revive traditional and village ponds into better functional systems in providing safe drinking water.
- ▶ Use of new and renewable energy sources for pumping/in situ treatment like solar disinfection, solar desalination, etc.

### 4. Parameters to be studied for Ensuring Sustainability

- ▶ Taking local wisdom into cognizance
- ▶ Rainfall pattern (monthly) – total, intensity, number of rainy days, hydrograph
- ▶ Annual Cyclic rainfall pattern (over 10 years) - trends
- ▶ Soil porosity and permeability
- ▶ Aquifers vis-a-vis rock type (geological and tectonic), age and probable leaching for chemical contamination
- ▶ Source survey for biological contamination
- ▶ Lithology and static groundwater table details
- ▶ Evaporation and seepage rates
- ▶ Water budgeting for household security
- ▶ Suitability of locally available material
- ▶ Use of HGM maps based on satellite data and desirable geophysical investigations
- ▶ Involvement of Community in decision making
- ▶ Existing water harvesting structures and its functionality
- ▶ Climatic change and its impact on drinking water sources
- ▶ Water management options for emergency situations
- ▶ Leak detection methods and prevention of leakage
- ▶ Promoting use of water saving, energy efficiency devices/fixtures



- ▶ Promoting use of new and renewable energy sources

## 5. Suggestive List of Ground, Surface and Roof-water Harvesting Systems/ Structures to improve rural drinking water supply

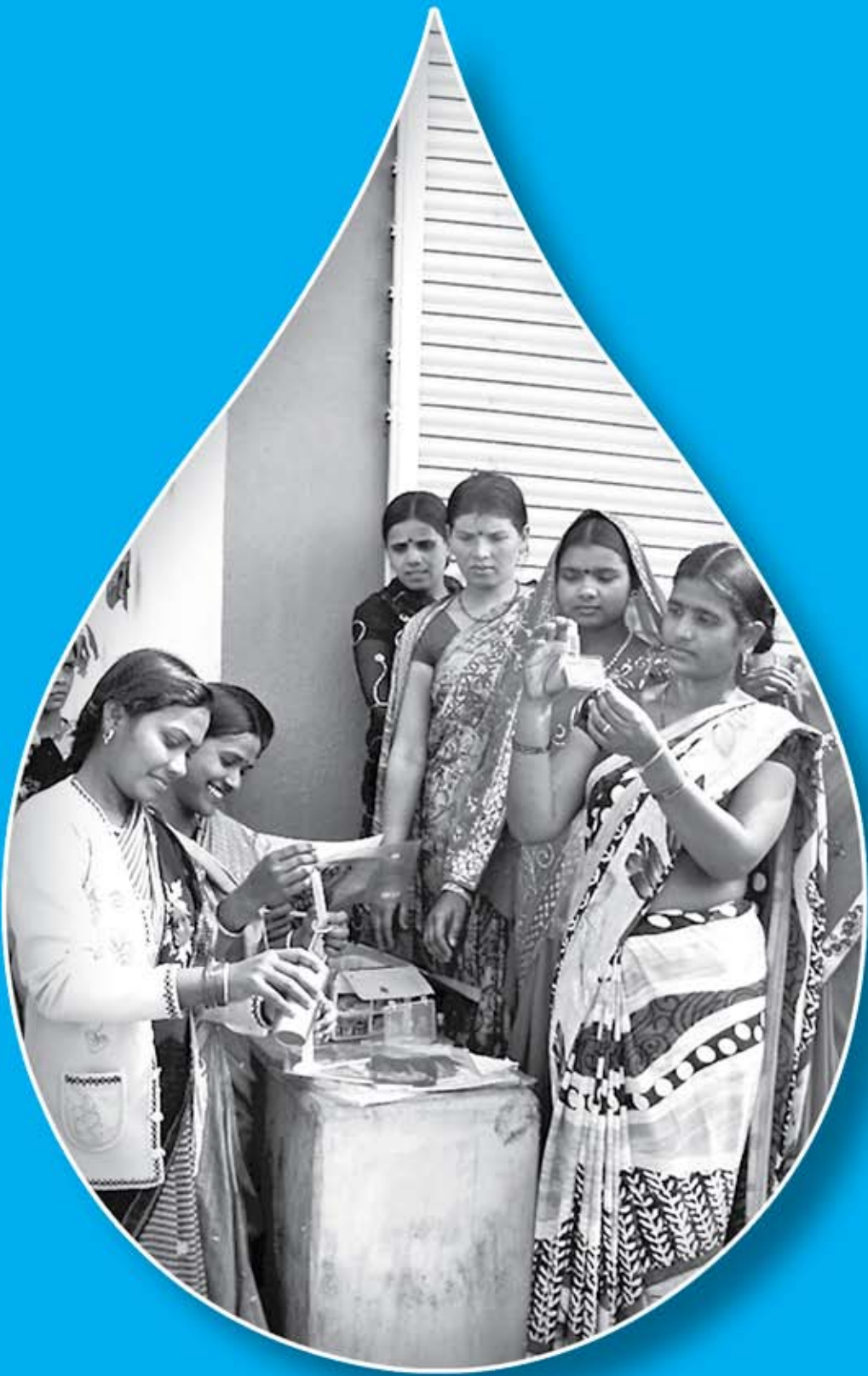
- ▶ Flood recharging method (only for regional drinking water systems)
- ▶ Gully plugs
- ▶ Recharge Pit
- ▶ Contour trench/bund
- ▶ Semi-circular trenches on slopes
- ▶ Check dam/Nala bund
- ▶ Percolation pond/tank
- ▶ Sub-surface dyke
- ▶ Injection well
- ▶ Injection spring
- ▶ Induced spring
- ▶ Recharge shaft
- ▶ Recharge well/Dug well with radial recharging systems
- ▶ Point source recharging systems (defunct borewells and abandoned dugwells)
- ▶ Recharging through sand dunes – coastal/ desert
- ▶ Levees – for retaining the flash run-off
- ▶ Infiltration well with collector well
- ▶ Infiltration gallery
- ▶ Ooranis or scientifically developed village ponds with in situ filtration and collection system
- ▶ Roof water harvesting for community structures like schools, anganwadis, GP office, etc.
- ▶ Soak Pits

The above list of works may be taken up either under Sustainability component of NRDWP or in convergence with other related programmes viz., MGNREGS (Department of Rural Development, GoI), National Afforestation Programme (Ministry of Environment and Forest), National Project for Repair, Restoration and Renovation of Water Bodies (Ministry of Water Resources, GoI), Integrated Watershed Management Programme (Dept of Land Resources, Ministry of Rural Development, GoI), etc.

The technologies mentioned above are suggestive in nature. The State Governments may like to adopt appropriate structures depending upon the local hydro-geo-morphological conditions suitable to rural drinking water schemes.

## 6. Eligibility Criteria for Funding under Sustainability Component

- ▶ Sustainability structures should be taken up on priority in over-exploited, critical and semi-critical blocks and in quality affected habitations.
- ▶ Labour cost of any recharging system/ surface water impounding structures **may** be met from Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) / Integrated Watershed Management Programme funds.
- ▶ Desilting of ponds to be done only with MGNREGS funds
- ▶ Only material component of conversion of existing village ponds into recharge/ collection structure should be funded under this component.
- ▶ Capital cost component of roof-water harvesting structure should be a simple PVC gutter, first flush facility, tap and adopting preferably ferro-cement/PVC tanks, wherever feasible. Capacities to be designed on volume demand.
- ▶ Pumps, Pipes or any other storage structure (other than collector well for an infiltration well/gallery) to be considered only under regular programme
- ▶ All proposals with prior scientific database to be vetted by the State Technical Agency involving Technical Experts and approval by the SLSSC.
- ▶ Cost of constructing roof of the building of any nature for roof-water harvesting is not admissible under the Sustainability component.
- ▶ Sustainability component of the drinking water supply systems should be such that it is easy to operate and maintain by the community/Gram Panchayat/Water User group.



Water quality surveillance at the Gram Panchayat Level

## Annexure III

# Framework for Water Quality Monitoring & Surveillance (WQM&S)

## 1. Background

The National Rural Drinking Water Quality Monitoring & Surveillance Programme was launched in February 2006 (2005-06) with the prime objective of institutionalization of community participation and involvement of PRIs for water quality monitoring & surveillance of all drinking water sources. As drinking water quality monitoring, and quality surveillance are two distinct but closely related activities, requiring drinking water quality monitoring by suppliers of the drinking water and surveillance by the Health authorities, close collaboration is required between drinking water supply agencies and Health authorities all over the country.

Indiscriminate over-drawal of groundwater has changed the hydro-geo-chemical environments of the aquifers and in general enhanced toxic and undesirable chemical constituents of water beyond the permissible limit viz. fluoride, arsenic, TDS, nitrate etc. with direct health implications leading to manifestations of various diseases. Climate change is also affecting water resources in all countries resulting in increase in diseases such as cholera, typhoid, malaria and dengue which are basically sanitation and water related diseases.

Excess fluoride and arsenic in ground water drinking sources has given rise to crippling and incurable diseases like fluorosis and arsenical dermatitis. Fluoride contamination continues to affect 17986 habitations in 19 states and excess arsenic continues to affect 4314 habitations of

West Bengal, Assam, Bihar and Uttar Pradesh and other States. New evidence suggests that the whole Ganga-Meghna-Brahmaputra belt is under threat of arsenic contamination. In India current estimates place 30-40 lakh people at risk from arsenic poisoning and 5 crore people exposed to excess fluoride, iron, nitrate and salinity. The indiscriminate use of fertilizers and insecticides along with unscientific usage of single pit latrine and indiscriminate disposal of domestic waste water, have further contributed to the deterioration of ground water quality.

An Implementation Manual on National Rural Drinking Water Quality Monitoring & Surveillance Programme was prepared through All India Institute of Hygiene and Public Health, and circulated to all State Governments in January 2004.

## 2. Implementation from 2004 to 2008

The evaluation of the programme implementation during 2004 to 2008 by different agencies revealed that there is an urgent need to restructure the National Rural Drinking Water Supply Quality Monitoring and Surveillance.

National Rural Drinking Water Quality Monitoring & Surveillance Programme envisaged implementing the programme through the following strategy:

- ▶ Under the programme, 100 % funding would be provided for IEC activities, HRD activities, strengthening of district level laboratories, procurement of field test kits,

travel and transport cost, data reporting cost, stationery cost, honorarium to district level surveillance coordinators, water testing, documentation and data entry costs to the States for strengthening water quality monitoring facilities as per approved norms for water quality monitoring & surveillance programme and NRDWP guidelines.

- ▶ The existing personnel (both technical and non-technical) in several departments like PHE, Health, Rural Development, Panchayati Raj etc., would be mobilized and involved.
- ▶ O&M of the field test kits including refilling costs for field test kits, cost of disinfectants, minor remedial expenses, annuity and mobility, honorarium to grass root workers, and honorarium to GP level coordinator will be covered by community contribution.
- ▶ One field test kit per GP shall be provided. In addition, demo kits shall also be provided as per the following breakup: - State/SRI -1, District- 3 and Block- 2.
- ▶ The funds for implementation of the Programme will be released by Government of India to the SWSM/PHED/Boards, based on criteria like number of drinking water sources, number of GPs, Block Panchayats, districts, total rural population, etc. in respective States.
- ▶ State Governments then release funds relating to IEC and HRD to the WSSO (CCDU). Funds for setting up of new laboratories and strengthening of existing district level laboratories and administrative expenses shall be released by the States to DWSM/ District laboratory.
- ▶ Fund flow and strategy for procurement of field testing kits may be decided by the respective State/UT Government.
- ▶ For meeting recurring costs of field test kits and other expenses, the community could contribute @ Rs 1 per family per month to be deposited in the GPWSC/VWSC accounts with separate ledger.

### 3. Need for Change

- ▶ With the approval of the “National Rural Drinking Water Programme” by the Government of India there is a paradigm shift from ‘just providing a water supply system in the habitation’ to ‘ensuring water supply security at the house hold level’.
- ▶ The enormous task of drinking water quality monitoring & surveillance in rural areas requires about 50 lakh samples to be tested annually with a norm of testing all sources once a year for chemical contamination and twice a year for bacteriological contamination.
- ▶ At present the State Rural water Supply Departments have skeleton Water Testing Laboratory at the District level only and it is practically impossible to test all the drinking water sources of the villages in the district in this laboratory. In some of the districts the horizontal distance may be more than 100 kilometers and in hilly areas and in difficult terrain it may take 6-8 hours of travel.
- ▶ Regular water testing facilities in schools and other institutions at the Sub-division are not available or are non functional. As such depending on such non-existent facilities at the sub-divisional level grossly affects the testing and verification of water quality data and actions/intervention to be initiated based on confirmed data

### 4. Modified Strategy

- ▶ To have authentic water quality data for initiating action it is essential to have a basic Water Testing Laboratory at the District and Sub-Divisional / Sub-district Level, either established with NRDWP funds, or existing labs of other departments / educational institutions with appropriate testing facilities duly identified for the purpose. Under NRHM there is a provision of testing water quality (biological parameters) at the Primary Health Centers (1 per 30,000 population i.e. approximately for 30 to 40 villages/cluster of

GPs). Such facilities, along with any other labs in the area, may be used for the programme. Ideally, these labs should be under the joint management of PRI and PHED similar to Primary Health Centres (PHCs) of National Rural Health Mission.

- As such all basic chemical and biological parameters can be tested at Sub-divisional/ Sub-district laboratory and primarily biological test of all sources can be tested in PHCs and joint remedial actions can be taken up by the Gram Panchayat.
  - For data collection at the household level and at the habitation level one person, preferably a woman member of GPWSC/ VWSC (which is a Standing Committee of the GP) may be nominated. The person selected may be designated as “JAL SURAKSHAK” and provided with a badge. Since ASHA of NRHM is also responsible for community action on prevention of water and sanitation –borne diseases the GPWSC/VWSC member selected should work in close coordination with ASHA.
  - Broad role and responsibilities of GPWSC/ VWSC/ASHA members are indicated below:
- The Jal Surakshak should make use of the Field Test Kits (FTKs) provided under the programme to obtain a preliminary result. This must however be confirmed through subsequent testing in the established labs. The refill costs of the FTKs may be borne from the NRDWP (WQMS) funds provided to the State.
  - The District / Sub-division Level Water Testing Laboratory must have facilities of testing the following parameters viz.

    1. pH
    2. Total Hardness
    3. Iron
    4. Chlorine demand
    5. Residual Chlorine
    6. Nitrate
    7. Fluoride and Arsenic where ever it has been identified and detected
    8. In addition to above tests there will be provision for bacteriological analysis of water to determine if there is any faecal contamination. It has been envisaged that a blanket test of bacteriological contamination of all sources will be conducted for MPN counts and

Sl. No.	Role of GPWSC/VWSC member	Role of ASHA (NRHM)
i	Ascertain drinking water adequacy at the household level including livestock needs.	Ascertain water and excreta related diseases at the household level as per the NRHM format
ii	Identify all sources of drinking water for different purpose	Collect sample for testing and transfer at the PHC for testing biological parameters
iii	Test all the sources by field testing kits	Carry out sanitary inspection of all the sources
iv	Collect sample for testing and transfer to the Sub-division Water Testing Laboratory for testing both chemical and biological parameters	Take corrective measures along with GPWSC/VWSC member to prevent pollution of drinking water sources.
v	Record details of water supply sources and system in the village/GP	Record keeping of all water and sanitation disease related data
vi	Tariff collection from every household and management of water supply scheme at the GP level.	Advocacy on hygiene promotion and disease prevention issues at the household level
vii	Carry out awareness activities on water related issues	Carry out awareness activities on sanitation related issues
viii	Any other task assigned by GP President related to rural water supply activities	Any other task assigned by GP President related to rural sanitation activities



E-Coli/Faecal Coliforms in all the Sub-divisional Laboratories.

- Consolidated at the District level to be entered on line in MDWS website.
- All interventions and actions for dealing with physical (turbidity) and biological contamination of sources are to be taken care of at the GP and Sub-division level.
- IEC and HRD activities need to be linked with WSSO (CCDU).
- The services of five GP level workers who have been trained under National Rural Drinking Water Quality Monitoring & Surveillance programme since February 2006 i.e. ASHA, Anganwadi Workers, School Teachers, GP members, Social Workers etc, will continue to be used for the surveillance programme.

## 5. Approach

### At the National Level

- The Ministry of Drinking Water and Sanitation (MDWS) to monitor the entire programme.
- The Ministry has issued Uniform Drinking Water Quality Monitoring Protocol for guidance of State RWS/ PHE Departments, State, district and sub-district laboratories and other stakeholders in WQM&S.
- Establishing a well structured information flow between Government, Technical Institutes, District Laboratories, Sub-Divisional Laboratories and grassroots functionaries.

### At the State, District and GP Level

- States may access funds from NRDWP (WQMS) for setting up and upgrading drinking Water Testing Laboratories at the State, District and Sub-Division level.
- Take up State and Region specific IEC activities involving PRIs, Co-operatives, Women Groups, SHGs, and NGOs by WSSO (CCDU)/SWSM.

- Impart training to district, sub-division, block and GP level functionaries. Special training to be imparted to the 5 members (School teachers, Anganwadi Workers, ASHA, Ex Army Personnel, local NGO Members, GPWSC/VWSC) members in each GP.
- The State level laboratories would also be involved in testing concentrations of rare elements and in providing water quality testing reports to the State Government during natural calamities and disasters.
- Testing of 100% of the sources at sub-divisional laboratories both for bacteriological and chemical and physical parameters and 10% of samples to be tested which include positively tested samples by the district laboratories apart from routine cross verification by the State laboratory.
- For chemical and physical parameters testing may be carried out once a year and for bacteriological parameter it is desirable to test twice a year pre and post monsoon and as and when water related diseases are detected.
- Gram Panchayat will carry out testing of all drinking water sources including private sources within its jurisdiction particularly for bacteriological parameters.
- Identification/Registration of safe drinking water sources in all rural habitations (Gram Panchayat wise).
- Bacteriological parameters of all the water samples to be tested, whereas the physical and chemical parameters to be tested on area specific requirement.
- Data generated from the house hold level or laboratories to be reported through MIS developed by the NIC-MDWS or through MIS developed by the States. Only the chemical parameters will be reflected at the National level MIS, whereas the physical and bacteriological contamination is to be reported and tackled at the GP/District/State level.
- Water sample collection, household survey and sanitary inspections of drinking water

sources should be by village level workers from GPWSC/VWSC/GP.

- IEC and awareness generation by village level workers from GPWSC/VWSC/GP using Field Testing Kits.

## 6. Funding

- Under the programme, 3% of State NRDWP allocation is provided for NRDWP (WQMS) on a 100% Central funding basis for setting up/ strengthening of State and district level laboratories, setting up/ strengthening of sub-divisional laboratories, stationery cost, sample collection cost, consumables, water testing, outsourcing of services, documentation, FTK cost, refill costs of FTKs and data entry costs to the States for strengthening water quality monitoring facilities as per norms approved by MDWS or SLSSC.
- The existing personnel (both technical and non-technical) in several departments like PHE, Health, Rural Development, Panchayati Raj etc. would be mobilized and involved. NHRM and Central Finance Commission funds to be utilized for this purpose.
- Salaries of regular staff engaged in WQMS should be fully borne from State funds.
- The State Water and Sanitation Support Organization (WSSO) needs to prepare a master plan for the WQM&S programme and also Annual Action Plan indicating year wise financial implication which is to be approved by SLSSC.
- The funds for implementation of the programme will be released by Govt. of India to the SWSM/PHED/Boards under the Support component of NRDWP.
- All IEC and HRD activities under WQM&S programme are to be taken up by WSSO (CCDU) under the WSSO.
- Funds for setting up of new laboratories and strengthening of existing district level laboratories and administrative expenses shall be released by the States to DWWSM/ District laboratory. Fund flow and strategy

of the entire programme may be decided by the respective State/UT Govt.

## 7. Illustrative List of Training and IEC activities

- Training of Members of PRIs/GPWSC/VWSC/ Standing Committee of PRI on water quality and sanitation
- Water quality issues including health related diseases
- Water quality monitoring
- Sanitation and hygiene
- Training of NGOs, district level officers, State level functionaries on
- Social mobilization
- Water quality monitoring & surveillance
- Sanitation and hygiene
- Training of school teachers at village, block, district level, Health workers, Anganwadi workers for promotion of water quality monitoring & surveillance.
- IEC strategy which may include
- Inter-personal communication (door to door contact)
- Audio-visual publicity
- Hoardings and wall writings etc.
- Slogans, picture frames, group meetings, street plays, participatory rural appraisal and exhibitions may be used as tools.
- IEC guidelines for the Rural Drinking Water Supply sector are at Annexure IV-A.

## 8. Monitoring of the Programme

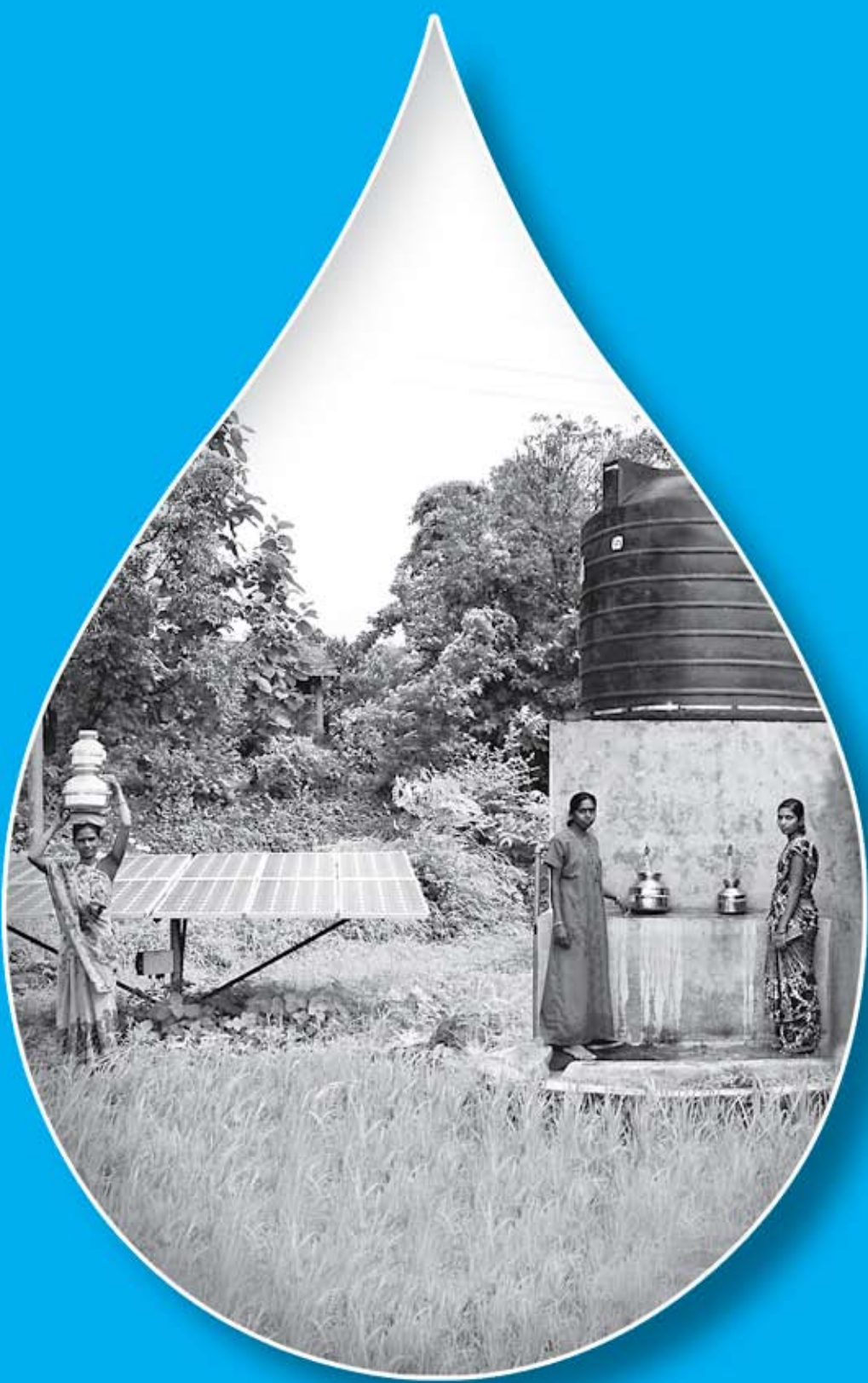
- Monitoring through regular field inspections by officers from the State level and the district levels is essential for the effective implementation of the programme. DWWSM should constitute a team of experts in the district who should review the implementation in different blocks frequently. Such review should be held at least once in a quarter.

- ▶ Similarly the SWSM should conduct review of the programme in the districts once in 6 months.
- ▶ Inspection should be made to check and ensure that the water quality monitoring & surveillance programme is implemented in accordance with the norms and also that the community has been involved in the analysis of water samples using field test kits.
- ▶ Inspection should be done to check whether the water quality information of the drinking water sources in a Gram Panchayat has been displayed transparently in the Gram Panchayat (by wall painting or special hoarding for which IEC funds could be utilized).
- ▶ In addition, Govt. of India may also send its Review Missions to the States to assess the quality of implementation of the programme.

## 9. Reports

The reporting mechanism shall be as follows:-

- ▶ All data generated at various levels to be entered online. Data generated from the house hold level or laboratories to be reported through MIS developed by the NIC-MDWS or through MIS developed by the States.
- ▶ Only the chemical parameters will be reflected at the National level MIS whereas the physical and bacteriological contamination to be reported and tackled at the GP/District/State level.



Sustainability of Drinking water sources have to be ensured.





Community based planning is an essented part of drinking water  
supply management



## Annexure IV

# WSSO – {Communication and Capacity Development Unit to be merged into WSSO}

## 1. Background

In demand driven and community based programmes, effective and creative communication plays a crucial role in their success. Both NRDWP and TSC/NBA lay great emphasis on use of IEC and HRD to generate demand and create awareness and participation of the community. In some places, results have been good and in some places these have not been so satisfactory in the absence of clear strategy, plan of action, modules, and untargeted resource centers which can help in proper implementation. WSSO {Communication and Capacity Development Unit (CCDU)) to be merged with the WSSO} has been designed to support the Engineering Department by taking up software activities like IEC, HRD, MIS etc. to improve the quality of the implementation and should be set up in each State for promoting initiatives in water supply and sanitation sector. In States where the water and sanitation sector is looked after by two separate departments the sanitation CCDU may be formed and report to the WSSO and SWSM and access funds from allocation for Nirmal Bharat Abhiyan. States may take steps to strengthen WSSO to become Rural Water and Sanitation Support and Management Organisation on the following lines:

- ▶ A multi disciplinary Rural Water and Sanitation Management Organisation (RWASMO) at the State level in the shape of a Society registered under the Societies Registration Act. It should consist of apart from official members, members for reputed CSOs. academic institutions, technical

institutes working the sector, representatives of GPWSC/VWSCs etc.

- ▶ It should have personnel with suitable academic qualification and experience to oversee work relating to water security planning, water conservation and recharge, water quality, construction, operation and maintenance of civil and engineering works, community mobilisation, financial planning and management, accounting, mass communication, training etc.
- ▶ The organisation should be empowered to take financial and administrative decisions and should have flexibility to appoint personnel from open market on contractual basis or take government servants on deputation.
- ▶ The Multi disciplinary District Water and Sanitation Mission (DWSM) for each district would report to the RWASMO.
- ▶ The Block Resource Centres (BRC) would report to the DWSM and work with the Managing Committees/GPWSC/VWSCs for implementing water supply and sanitation schemes.

## 2. Objectives

The broad objectives of WSSO {CCDU} include:

- ▶ Develop state specific information, education and communication strategy for reform initiatives in water and sanitation
- ▶ Provide capacity development of functionaries at all levels
- ▶ Address the need of sustainability in water and sanitation

- ▶ Promote new technologies which may be taken up under NRDWP and other Rural Water Supply Programmes and Nirmal Bharat Abhiyan
- ▶ Take up advocacy on conventional and traditional water conservation and rain water harvesting
- ▶ Undertake action research on various aspects of sanitation including new technologies, impact of provision of sanitation facilities on health indicators, IEC strategies etc.

### 3. Strategy

The IEC and HRD activities shall be converged at State level by “Water and Sanitation Support Organisation” under State Water and Sanitation Mission. CCDU will form part of WSSO along with MIS/Computerization Project, Water Quality Monitoring & Surveillance etc as explained in the NRDWP guidelines. WSSO (CCDU) will have expertise and infrastructure for carrying out the IEC and HRD activities for all the sub programmes of rural water and sanitation sector. The CCDU part of the WSSO shall undertake the following activities –

- ▶ Conduct Training Needs Assessment for Water and Sanitation
- ▶ Prepare Capacity Building Plan for PRI members, GPWSC/VWSC members and Engineering/technical staff.
- ▶ Identify Key Resource Centres at State and district/ regional level.
- ▶ Take up training programmes through National, State and district Resource Centres and through in-house resource persons.
- ▶ Prepare Annual IEC plan based on Communication Strategy for Water and Sanitation sectors.
- ▶ Create awareness amongst the community and stakeholders.
- ▶ Make Payment to the State Technical Agency and for Consultancy services.

### 4. Functions

The WSSO is to provide IEC, HRD and other support to the State Water and Sanitation Mission. It shall provide:

- ▶ HRD and IEC inputs to the National Rural Drinking Water Programme (NRDWP) and Nirmal Bharat Abhiyan (NBA) projects in the State
- ▶ Documentation shall be carried out of successful cases or initiatives taken by the States/agencies.
- ▶ Districts, which are poor performing, shall also be documented to find out the reasons and possible solutions which may help improve their performance.

### 5. Funding

All funds available under NRDWP 5% Support Fund may be transferred to Water and Sanitation Support Organization (WSSO) under State Water Sanitation Mission w.e.f. 1st April 2009.

The WSSO (CCDU) may look after all or some of the following for both Water and Sanitation.

- ▶ IEC and HRD
- ▶ Water Quality Monitoring & Surveillance.
- ▶ MIS/Computerization programme.
- ▶ Sustainability
- ▶ Monitoring and Evaluation of performance under NRDWP and TSC/NBA.
- ▶ Research and Development activities.
- ▶ State Technical Agency
- ▶ Other Support

Annual Action Plan of IEC, HRD and other Support activities including Capacity Building Plan is to be prepared by each State. This should be need based and approved by the State level Scheme Sanctioning Committee every year before or at the commencement of the financial year to which it relates.

The Annual Action Plan should include the following:

- IEC Activities plan
- Capacity Building Plan for PRI and GPWSC/ VWSC members, engineers, grassroots workers on
- Linkage of health with water and sanitation
- Role of PRIs and community in planning, monitoring and managing rural water supply and sanitation
- Water quality testing and monitoring
- Design and implementation of sustainability structures
- Professional development for engineers and technical staff
- Training of grassroots level workers like pump mechanics, pump operators, masons, plumbers, accountants etc,
- One-time procurement of equipment (if not already procured)
- Establishment cost (Consultants fee, contingency, TA/DA)
- Upgradation of the equipments purchased earlier or replacement of outdated/non functional items
- R&D, MIS, STA and other Support activities

## 6. Establishment Cost

Establishment cost shall include contingency expenditure, fees paid to Consultants, TA/DA etc. Payments of officials who are part of the WSSO (CCDU) but on deputation needs to be considered as they are paid from the WSSO (CCDU) funds. Cost of one time procurement of equipment shall, however, not be accounted as establishment cost.

## 7. Structure of WSSO (CCDU)

The structure of WSSO (CCDU) is indicated in Annexure VII under structure of WSSO. Desirable qualifications and experience of the WSSO staff are given at the end of Annexure VII.

## 8. Payment to State Technical Agency (STA)

STA may be assigned the job of Project preparation, project evaluation and approval, development of IEC and HRD modules etc. The job assigned to STA and payment to be made to the institute needs to be approved by State Level Scheme Sanctioning Committee (SLSSC). In this regard state norms may be followed.

## 9. Reporting Mechanism

The progress report on the IEC, HRD and other Support activities from planning to implementation for various functionaries at different levels should be entered in the online IMIS of the Ministry of Drinking Water and Sanitation on monthly basis.

The material developed on both IEC and HRD needs to be shared with the Ministry on regular basis.

## Annexure IV-A

# IEC Guidelines for Rural Drinking Water Supply

1. Water is a State subject and State Government/ its agencies are responsible for managing safe drinking water to all habitations in rural areas. With 73<sup>rd</sup> Amendment of the Constitution, rural drinking water has been placed in the XIth Schedule of the Constitution to be devolved to PRIs. Improving the access and usage of safe drinking water on a sustainable basis is a difficult and complex process especially in rural areas. Consumption of potable drinking water has a profound bearing on the overall well-being of people and their health. National Rural Drinking Water Programme (NRDWP) aims at empowered, well aware and skilled stakeholders capable of proper planning, implementation, operation, maintenance and management of water supply and water resources at all levels.
2. In order to enable the village community and PRIs to play their rightful role, it is important that knowledge and information gaps – both thematic and programmatic on various aspects of drinking water are bridged and an enabling environment is created. To enable the PRIs especially at the village level to plan, implement, manage, operate and maintain 'safe drinking water to all throughout the year on a sustainable basis' and to ensure coverage of all rural habitations with access to safe drinking water, sustainability of drinking water systems and sources, and to tackle the problem of water quality in the affected habitations, it is necessary that a multi-pronged approach is adopted. In this

context, a well planned information, education and communication (IEC) campaign plays a critical role.

## Strategy

3. IEC Campaign has to inform, educate and persuade people to realize their roles and responsibilities, and benefits accruing from investing in right practices. It should take into account the barriers and variables related to infrastructure, socio-cultural practices and traditions. The focus of any communication activity should be on awareness, sensitization and motivation of people to follow right hygiene, sanitation and water handling practices. The medium to be used for the IEC will depend on the following aspects:
  - a. access to service in terms of quantity, quality and periodicity/ regularity of drinking water supply;
  - b. various aspects of drinking water management viz. usage, conservation, safety and hygiene issues, economic aspects, operation, repair and maintenance, etc.;
  - c. different age groups and people viz. children, women, village elders and community leaders, etc.; and
  - d. local culture, traditional practices, language and dialect of the State/ region
4. The thrust of the IEC strategy requires promotion of community management to reorient the delivery of water services from the centralized supply-driven

approach to the decentralized, demand-driven, community-managed approach to be managed by the PRIs and local communities. IEC strategy needs to prepare the PRIs and rural community to take over the responsibility of managing and providing safe drinking water to all on a sustainable basis. Different strategies and activities need to be used for different areas. The following four broad areas need to be kept in mind while preparing the IEC strategy of the State:

- ▶ **Awareness:** The rural community needs to be made aware about bacteriological contamination, water-borne diseases and their impact on health, safe hygienic and sanitation facilities, various aspects of safe drinking water, appropriate technologies, water quality standards, testing the quality of water, waste management, wise management of local water resources, etc.
- ▶ **Transparency:** It is very critical that people are fully informed about the plan, schemes and investments proposed to be made in their areas. In fact, they should have a major role in deciding on the appropriate option. The village committee should display details of funds received and utilized at a prominent place in such a manner that people can see and understand it. This should be updated on a regular basis.
- ▶ **People's participation:** Rural community should be involved in planning, implementation and monitoring of the programme. While designing the programme for the community its needs, resources and challenges have to be assessed.
- ▶ **Accountability & responsibility:** People are to be made aware that Gram Panchayat and Gram Sabha have a key role in monitoring the programme.

## Objective

5. The objective of the IEC campaign is to trigger positive behavioural changes among stakeholders with respect to

hygiene, use of safe drinking water and sanitation facilities. This requires enhancing knowledge regarding safe drinking water, hygiene and sanitation by preparing, involving and empowering the rural community to actively shoulder the responsibility. The objectives of the IEC campaign may be as follows:

- ▶ create awareness and motivate people to take affirmative action for protection of drinking water sources, safe handling of drinking water;
- ▶ create awareness and motivate people to conserve water resources;
- ▶ trigger behavior change among individuals, families and communities to adopt improved health and hygiene practices;
- ▶ create awareness and demand for community participation;
- ▶ create an enabling environment through strengthened coordination, effective advocacy with media and critical stakeholders; and
- ▶ promote personal accountability and responsibility for ensuring provision of safe drinking water to all.

## Focused areas

6. IEC Campaign on safe drinking water would, *inter alia* include the following themes:
  - i) Use of safe and clean of drinking water
  - ii) Judicious use of drinking water
  - iii) Avoiding wastage of water
  - iv) Rainwater and rooftop water harvesting, recharge of ground water
  - v) Reuse and recycling of water
  - vi) Protection of drinking water sources
  - vii) Involvement of panchayats and community
  - viii) Formation of GPWSC/VWSCs with women and SC/ ST/ minority members and it's capacity building
  - ix) Water borne diseases
  - x) Water handling



- xi) Wastewater and solid waste management
- xii) Sustainability of water sources though various technologies
- xiii) Hygiene behavior
- xiv) Water quality & testing
- xv) Gender specific water issues
- xvi) Water resources and treatment
- xvii) Operation & Maintenance of water systems – A manual has been prepared for this activity.
- xviii) Management and planning of water services
- xix) Low cost technological options
- xx) Safe water in schools and anganwadis
- xxi) Equity issues (SC/ ST/ minorities)
- xxii) Cost effectiveness of various options
- xxiii) Use of water efficient items

## Planning IEC Campaign

7. Following target groups should be kept in view while planning the campaign:
  - ▶ **Primary Target Group** : creating awareness, raising the profile of issues and involving people in solving them – rural community, women, school going children and youth, Panchayat members and village elders/ community leaders
  - ▶ **Secondary Target Group**: Other important stakeholders and influencers (programme managers, district officials, etc.)
8. While planning the campaign, the following should be considered:
  - ▶ for effective implementation of the IEC campaign, the following issues need to be kept in mind :
    - it is necessary to understand whose behavior (target group) needs to be changed;
    - which behavior pattern needs to be changed and in what direction;
    - specific messages should be given to specific groups;
  - ▶ hence it is necessary to know:
    - what do people already know and do in terms of water and sanitation facilities;
    - their perception regarding health and hygiene aspects;
    - how do they define safe water, sustainability, sanitation, health and hygiene;
    - how much importance do they attach to safe drinking water, sustainability and basic sanitation facilities;
  - ▶ it is essential to establish in people's mind the relationship between safe drinking water, sustainability, clean environment, sanitation and health and that these are not possible without community participation; and
  - ▶ a sense of community ownership, accountability and responsibility to use and maintain facilities should be inculcated. Involvement of different implementing agencies is required in order to motivate the users in planning and implementing of the project.

## Suggested List of IEC Activities

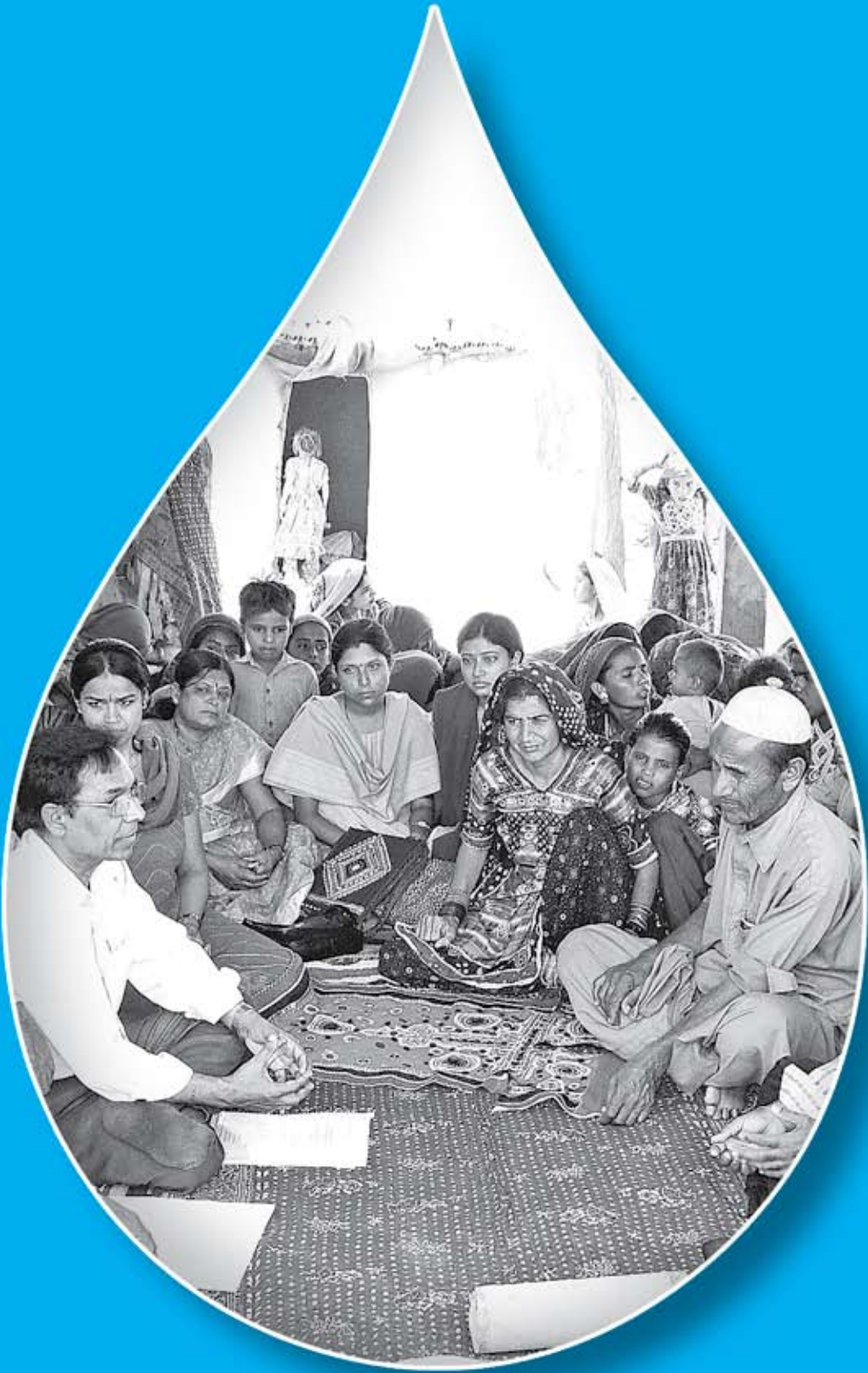
9. State IEC activities shall intensify and extend the reach of Behavior Change Communication campaign. Selection of any communication medium is driven by the programme objective. While developing any communication activity it is necessary to keep in mind the requirement of the target audience in terms of information needed and the manner in which it has to be disseminated. Multiple channels are essential to harness optimum results. The key audience and merits of a media will be key factors in prioritizing the various channels.
10. Details of suggested activities at State, District, block, GP and village level are given in IEC Guidelines.

## Implementation Plan

11. A proper plan based on the above need to be developed in the Annual Action Plan and should be followed during the year for effective IEC campaign.
12. Following key points should be considered while implementing the IEC campaign:
  - ▶ Baseline survey to understand basic information about the target audience and their felt needs, problems and services available;
  - ▶ Preparation of State, district, block and village Panchayat specific IEC strategy and modules for carrying out the campaign;
  - ▶ Formation of Gram Panchayat/Village Water and Sanitation Committee (GPWSC/VWSC);
  - ▶ Development and supply of required number of IEC materials;
  - ▶ Pre test of IEC material developed;
  - ▶ Use of inter community communication and behavior change communication strategy while implementing the programme;
  - ▶ Using interpersonal communication should be an integral part of IEC strategy;
- ▶ Conducting focus group discussion to understand needs, challenges and perception of the community about the programmes; and
- ▶ Monitoring and evaluation of the IEC by end use monitoring etc.
13. Funds available under Support Activities of NRDWP along with State resources and assistance available from other sources should be dovetailed while planning and implementing the IEC campaign.

## IEC Fund distribution

14. SWSM should approve the IEC plan and accordingly distribute the funds for activities to be taken up at different levels. Out of the total available fund for IEC, about 10% funds may be allocated to activities at the State level, 20% to activities at the district level, 10% to the block level and 60% for village level activities. This norm is flexible and activities should be planned in such a manner that there is no duplication and economies of scale are achieved. The communication strategy of the Ministry shall be implemented.



Participative planning and capacity building is essential for involving  
PRIs and Communities.

## Annexure IV-B

# Strategy for Implementation of HRD Campaign

The State WSSO (CCDU) needs to hold Training Needs Assessment workshops and make an in-depth study to ascertain the training needs for different stakeholders on different issues of rural water and sanitation programme.

Based on the need assessment report WSSO (CCDU), in co-ordination with STA and other State and National Key Resource Centres, needs to develop “Training modules” for different stakeholders on different related subjects.

Every year a Capacity Building Plan has to be prepared as part of the Annual Action Plan for training of the following stakeholders at different levels:

## Village level

- ▶ Gram Panchayat and GP/ Village Water Sanitation Committee members, GP Secretary and staff, Women, Masons, Self Help Group members, Motivators, Teachers, Anganwadi workers, Health workers/ASHA workers, Non Governmental Organizations / Community Based Organizations, pump mechanics, pump operators, plumbers, water quality testers etc.

## Block level

- ▶ Gram Pradhans, Block Panchayat members, Block Development Officer, Block Coordinator, Cluster Coordinators, Health Officer, Education Officer, Non Governmental Organisations, Junior Engineers, Master Masons, Mechanics, Teachers etc.

## District level

- ▶ Block Panchayat Presidents, Zilla Panchayat members, PHED engineers, District Coordinator, Consultants, Support Staff, Non Government Organisations, District Water Sanitation Mission and Committee members, Development Officers, Other related department officers etc.

## State level

- ▶ Zilla Panchayat Presidents, State level PHED Engineers, CEs, SEs, EEs, District Collectors, CEOs of ZP, Consultants of WSSO (CCDU), Support staff of WSSO (CCDU), , Non Government Organisations, Other related department officers etc.



Use of appropriate technology and recent advances in Engineering and Management have to be embraced.



## Annexure IV-C

# Guidelines for Engaging Technical Experts in Rural Water Supply and Sanitation Sector

## 1. Background

Technical expertise is required at all levels including the Panchayats to achieve the goals of NRDWP. Therefore, guidelines have been developed for engaging technical experts in rural water supply and sanitation sector to support the State Governments in their endeavours in this direction. This is a part of the Support Activities funded under the NRDWP.

## 2. Specific Objectives and Tasks

- ▶ To assist State Governments in providing appropriate technology and bringing in sustainability to drinking water supply systems, safe sanitation, proper handling of water and hygiene practices and solid/liquid waste management, etc.
- ▶ Assist in promoting sustainable technologies like Eco-sanitation.
- ▶ Assist in demand driven community mobilized projects duly addressing equity, gender and vulnerability issues.
- ▶ Assist the States in developing district and State level Master Plans for water supply and Sanitation.
- ▶ Assist in training/capacity building of State/ PRI officials
- ▶ Assist in conducting National/State level Workshops both for water and sanitation.
- ▶ Attend the State Level Scheme Sanctioning Committee meetings and provide proper direction in approving good and sustainable projects.

- ▶ Assist in developing and publishing technical manuals/operational guidelines/publications/brochures/leaflets on water, sanitation, health and hygiene related issues.
- ▶ Evaluate technologies/conduct impact assessment studies on specific cases.
- ▶ Exploring sustainable and low cost technologies, use of new and renewable energy systems within and outside the country and disseminating the information to the States.
- ▶ Assisting the States in using technologies like GIS/Remote Sensing for preparing good quality hydro-geo-morphological maps and identification of appropriate sites for drilling for groundwater sources and for recharge structures.
- ▶ Review district water testing laboratories and provide necessary technical advice for improvements/upgradation of these labs.

## 3. Qualification and Experience of Technical Experts and Methodology of Empanelment

The focus of extending technical support to the State Governments is to utilize the technical competency of experts in the water and sanitation sector who have worked at senior positions.

The following are indicative requirements for empanelment of these experts by the State Department.

## Relevant University/Engineering Degree

At least 20 years of experience in senior position in any specific area relating to water and sanitation sector e.g. environmental engineering/ science, water supply and sanitation engineering, repair and installation of water treatment plants and designing optimum cost distribution network, water auditing, social auditing, energy auditing, new and renewable energy systems, impact assessment studies, ISO-14001 lead auditor, expertise in handling sludge/ wastewater, ecological sanitation, geology, hydrology, chemistry, micro-biology, preventive medicine, specialist diagnosis, creation of low cost local solutions by conjunctive use of water, special techniques in ground water recharge, Oorani development and revival of traditional ponds, roof-water harvesting, carbon credits exchange for bio-gasifiers, community mobilization , capacity building, software solutions for reducing O&M cost, online monitoring, etc. or any related field of work.

## 4. Institutional Mechanism for Engaging Technical Experts

It is the responsibility of the STA to engage technical experts on specific assignments. For preparation of Sustainability projects, the STA may depute technical expert(s) to the concerned district. Once such projects are prepared, the STA may hire subject matter specialists to examine these projects before they are submitted to the SLSSC for approval.

For other tasks e.g. preparation of manuals, hand books, review of projects, field visits for overseeing implementation of new technology, impact assessment studies, etc. STA will hire the services of the Technical experts directly and involve them at the State level.

## 5. Major Activities and Funding Pattern

Specific objectives and tasks have already been stated at Para 2.0. These tasks can be broadly divided into the following categories:

- ▶ Attending State level Scheme Sanctioning Committee (SLSSC)/State or Central level discussions/Reviewing the Sustainability component in projects already prepared by the State Governments for sanction of SLSSC/Review of water supply and Sanitation projects. A brief report will have to be prepared by the technical expert to the concerned State Government.
- ▶ Preparation of Projects by Technical Experts – These projects may be of two types i) DPRs/ FRs already prepared by State officials but IEC, HRD, Sustainability and Environmental sanitation component is not built in and has to be designed with all details. ii) Totally new projects are required to be prepared along with IEC, HRD, Sustainability and Environmental sanitation components with focus on developing local solutions through conjunctive use of ground water, surface and roof-water harvesting. In either case, all relevant basic data required for preparation of projects will have to be provided by the State Government. The Technical expert would design the project based on the inputs from the State Government concerned. The project report preparation cost is to be built into the total project cost. All such reports would be placed for examination by the State Technical Agency (STA) to be created by all State Governments, which is one of important wings of the State Water and Sanitation Mission. The SLSSC should not approve any project unless the STA clears the said project in the first phase. A set of additional technical experts from reputed Institutions/Universities/Engineering Colleges can also be hired as empanelled specialists with the STA.

- It is the responsibility of the State Governments to replicate any successful sustainability model and experts should not be hired for creating similar models elsewhere.
- Developing Training Manuals/Modules/ Design/Hand book, etc. on Water Supply or Sanitation
- Assisting in conducting specific training/ awareness generation programme
- Assisting in conducting impact assessment studies
- TA/DA, local travel and incidental expenses etc. will be reimbursed by the State/UT

Government on actual basis as per the existing Government of India guidelines for travel of Grade-A Central Government Officers on duty. This expenditure could be met from the funds provided to the State Water and Sanitation Support Organization (WSSO) under the National Rural Drinking Water Programme. A suggestive list of Technical experts State-wise has been provided in the Ministry's web site. However, the State Governments are free to select their experts as per the local conditions based on the provisions of the guidelines as above.

## Annexure V

# Guideline on Computerisation and Management Information System (MIS)

The Ministry of Drinking Water and Sanitation (MDWS) will continue to practice and promote e-governance activities within the Ministry and support the strengthening of these activities, at state level, during the 11th Five-Year Plan with priority on deployment of state MIS, capacity building, Content Management (adoption and integration of GIS/Remote Sensing content with MIS), Compliance with census administrative codes and sharing the information in public domain through state PHED/RWSS website (for promoting the RTI Act), connectivity, computerized grievance redressal and e-service delivery. The programme will also cover the provision of computing environment at sub-division (sub-district in the field offices of PHED/RWSS agencies) level in the remaining states.

Government of India will provide financial support to the State Governments/NIC-MDWS under NRDWP Support Fund on 100% Central share basis for the following items -

- 1 Computing Environment
  - a For Mission HQ
  - b New field offices at state/circle/zones/divisions
  - c Remaining/new Sub Division offices
  - d Upgradation of hardware and system software
- 2 Connectivity/Networking for remaining sites/offices including sub division and VC facility at state and Mission HQ.
- 3 Strengthening (Modification/addition/upgradation) of MIS/Application Software Package.
  - a) Operation and Maintenance – MIS
- b) Development of State PHED/RWSS Dynamic Website, its linkages with state/MDWS MIS, making it compliant with W3C accessibility/security standards, localization, e-documentation, Multimedia presentation and for sharing departmental data/information dynamically, in public domain.
- 4 Content Management - Compliance with Census Codes, localization of data, and adherence to other standardized content management practices, GPS integrated hand held device deployment for field data collection etc.
- 5 Capacity Building for centrally developed applications by MDWS (IMIS, new technology such as usage of GPS enabled devices/hand held devices etc).
- 6 GIS Development
  - a GIS Hardware and system software (only at Mission and State HQ Level)
  - b GIS sensitization at IIRS/NRSC for maximum 5-10 persons/state
- 7 Central Monitoring Cell for ensuring the effective implementation of e-Governance Guidelines.
- 8 Computerised Grievance Redressal system at the State/ district levels.
- 9 E-Procurement.
- 10 Recurring Expenditure and consumables for state projects to be funded wholly from State funds.

MIS and Computerisation plan should be prepared as part of the Annual Action Plan under NRDWP (Support). Based on the plan discussions with the MDWS the activities proposed in the

plan are to be revised. The SLSSC would have powers to approve the revised Plan activities for implementation,

During 9<sup>th</sup> Plan to part of 11<sup>th</sup> Plan period (upto 31.3.2009), funds were released to the States to provide hardware/networking support to State, Regional and District level Offices of PHED and w.e.f. 1.4.2009 the same was extended to sub-divisional offices of PHED in States.

Funds released to States for computerization of State, Regional and District PHED offices upto 31.3.2009 need to be utilized fully for items approved by Government of India and expenditure statement including utilization certificate to be submitted to Gol. Unspent/balance amount may be utilized for providing hardware/networking support and soft ware etc to the Sub-Division Offices of PHED.

As in the previous plan periods, National Informatics Centre (NIC) will continue to play role of Chief Technical/e-Governance Consultant to the Department during 12th Plan period also. NIC will assist the Ministry at the National Level. The NIC State Unit would assist the State Level Scheme Sanctioning Committee (SLSSC) for implementation of the Project in the identified areas stated above. At the center, NIC will be in charge of the management of central database and will be responsible for all software development and training needs. These activities will be carried out through paid projects awarded to NIC/NICSI.

## 2 Computing Environment

With the fast changing specification/configuration of hardware in Information Technology Sector and fluctuation of rate of different components of the computer hardware/System software, all States are to adopt the specification and rates finalized by the respective States/UTs Governments following proper formalities, at the time of procurement of hardware.

### 2.1 Sub Division Offices and Water Quality Testing Laboratories

Keeping in view the assistance provided to the States, in the last two plan periods, subdivision level computerization would be supported in the current plan period. The following items will be allowed at Sub-Division Offices and water quality testing laboratories.

- I. Computing Environment at Subdivision level offices
  - a. Desktop with Operating System and Office Automation Software (Two)
  - b. Printer (One)
  - c. UPS (Two)
  - d. Portable Hard Drive, pen drive, internet data card (as per requirement)
  - e. Hand held (with integrated GPS) device (Two/Subdivision)
  - f. Internet connectivity through dial up/lease line/VSAT/and associated network equipment as found suitable
  - g. Installation of LAN based on switch/hub/repeater & CATS cabling
- II. Computing Environment at Water Quality Testing Laboratories
  - a. Desktop with Operating System and Office Automation Software (One)
  - b. Printer (One)
  - c. UPS/CVT (One)
  - d. Portable Hard Drive, pen drive, internet data card (as per requirement)
  - e. Internet connectivity through dial up/lease line/VSAT/associated network equipment as found suitable

### 2.2 Upgradation of hardware

Keeping in view, the pace of technical advancement and innovations, all hardware provided under the erstwhile MIS projects may be declared obsolete after five years from the date of purchase and can be replaced with new hardware of higher specifications and necessary



system software after due approval from SLSSC. Buy back options could also be considered.

### 3. Connectivity/Networking/ Video Conferencing Facility

- a) Installation of LAN based on Hub/Switch and cabling at new offices and remaining Sub-Division level (As per requirement).
- b) Installation of a VC facility at District, Regional and CE offices, State PHED/RWSS Secretary. (One in each office).

### 4. Strengthening of Application Software /MIS Package Implementation

During the 10<sup>th</sup> plan, States were offered and provided funds for development of MIS Software. As a result, a few states are engaged in deploying their information systems. Successful deployment and sustenance of these state MIS would require operation and maintenance (MIS O&M) funds. Such O&M expenditure may be borne from the NRDWP Support funds with the approval of SLSSC provided the following conditions of deployment and usage are met:

The deployment of MIS, in the following minimum areas should have been successfully completed with data granularity of habitation-wise water sources/systems and the system fully utilized on a day to day basis with data available in public domain. This is required to realize state specific web based information system, on the lines of IMIS, so that the data could be exchanged between state system and IMIS electronically and repetitive data entry is avoided. This is non-negotiable precondition for any further funding under these guidelines.

- ▶ Habitation data with 100% linkage to Census 2011 data
- ▶ Finance and works Accounting
- ▶ Scheme/Assets and Programme Management

- ▶ Water Quality Monitoring & Surveillance Programme
- ▶ Inventory management of major procurement items like pipes etc.
- ▶ E-procurement. (Support also given by MDWS through NICSI).

### 5. Content Management

For making MIS data compliant with 2011 Census Codes, localization of data and adherence to other standardized content management practices, funding can be met from Support component based on data entry man-months as per requirements. Cost of engaging enumerators for one time GPS survey of water sources can also be met from this component as per requirements.

### 6. Capacity Building

Funds can also be used for capacity building for centrally developed applications by MDWS including usage of GPS enabled devices/hand held devices for mobile application, through field level training programmes as well as web based multimedia videos and presentations.

### 7. GIS Development

GIS application development costs could be funded with approval of SLSSC in states which have moved into the third phase of computerization where governance is fully based on web based digital information and new innovative technologies have been adopted. For such states, equipments/activities for GIS development at the Head Office of the State Government dealing with Rural Water Supply and Sanitation will be supported under Support component.

#### 7(a) GIS Hardware and Software at State Headquarters

- i. PC with OS - 2

- ii. A0 Size Scanner cum Printer - 1
- iii. A0 Plotter - 1
- iv. UPS 3 KVA
- v. Digitizer A3 Size - 1
- vi. GIS software (as per requirement)

7(b) Development of web enabled GIS package integrated with already developed MIS and Content Management (Digitization, scanning, web enabled GIS Integration with existing MIS)

## 8. Role of NIC/NICSI

Funds will be provided to NIC/NICSI based on proposals submitted by NIC/NICSI, for execution of these guidelines at the central level and extensive capacity building at field level, as and when required. This will include application development and deployment charges, manpower charges, hardware and system software expenses, data entry expenses, provision of space, site preparation, honorarium of officers/contract personnel and travel expenses of officers and contract personnel who will have to travel for extending support at State/Regional level. This should also include the fund requirements for participation of group/cell members in conferences/workshops/training programmes etc for enhancement of their skill sets.

For effective monitoring, contract persons (Consultants, Designer, Programmers, Data Entry Operators and other staff) may be hired, through NICSI or through other suitable agencies, if required.

## 9. Procurement

The procurement of hardware and office automation software will be done by State Governments after the project is approved by SLSSC. All the related procurement and financial norms as prescribed by the respective State governments for procurement of computers, hardware and software should be followed.

## 10. Annual Maintenance

Comprehensive Annual Maintenance Contract (AMC) should be entered into by the respective State/UT Governments/Agencies with the selected vendor or any other appropriate agency.

## Annexure VI

# Policy Guidelines on Research and Development for Rural Water Supply and Sanitation Sector

## 1. Introduction

Research and Development in the field of Rural Water Supply and Sanitation programme is one of the Support activities of the Ministry of DWS for which 100% funding to research organizations including NGOs is given under NRDWP (Support).

To strengthen the R&D facilities in the concerned Departments in various States, State Governments are encouraged to establish R&D cells with adequate manpower and infrastructure and fund State specific research projects from the NRDWP (Support) funds.

## 2. Priority areas for research and development (R&D) initiatives in rural drinking water and sanitation sector

Ministry of Drinking Water and Sanitation, Government of India has identified the following priority areas for sponsoring research and development projects in rural drinking water and sanitation sector and seeks R&D proposals from well established R&D institutions, Universities, etc.:

### Priority area – I

Water resources exploration, assessment & exploitation related technology development

- ▶ Specialized geo-physical interventions for problem areas;
- ▶ Remote sensing applications in specific areas (other than hydro-geo-morphological maps) including temporal changes in land use and interventions on creation of ground water sanctuaries;
- ▶ Improvement of traditional springs/ tanks/ ponds/ surangams including monitoring;
- ▶ Evaporation control in drinking water based surface water courses; and
- ▶ Dissemination of efficient technologies through universities and reputed organizations.

### Priority area – II

Technology development for improvement in water extraction techniques

- ▶ Improvements in hand pump/ attachments like dual pumps energy saving pumps/ windmill/ solar pumps/ hydraulic rams;
- ▶ Improving energy efficiency for reducing O&M costs for projects using conventional power;
- ▶ Improvement in tube-well efficiency (strainer, gravel pack);
- ▶ Improvement on rejuvenation techniques (caving of wells/ clogged strainers/ clogged infiltration gallery).

### Priority area – III

Water scarcity reduction and related technology development

- Artificial recharge/ control of salinity ingress/ evaporation reduction techniques/ desalination;
- Water saving irrigation/ industry/ reuse and recycling/ tap leakage detection and prevention improved storage and distribution inexpensive storage tanks (ferro-cement)/ distribution pipes (PVC, bamboo);
- Improvements in distribution network of water supply projects for reducing water losses including unaccounted losses;
- Recovery of pure water from wastewater/ sludge generated from clari-flocculators and improved methods of alum recovery;
- Special interventions for providing safe drinking water in drought prone and flood-hit areas; and
- Cost optimization and improvements on types of materials, structure, storage, etc. For rainwater harvesting structures.

### Priority area – IV

Technology for water quality enhancement for rural areas

- Development of water quality kit;
- Technologies for treatment of excess salinity/ sulphate/ nitrate/ arsenic/ fluoride/ iron, etc.;
- Bacteria/ virus and related micro-biological/ genetic engineering impacts with respect to unsafe drinking water quality;
- Development of water quality enhancement - tablets/ powders/ portable heaters/ traditional herbs and processes;
- Various methods of disinfection including newer technologies like ozonation, copper-silver ionization, etc.;
- Environment friendly sludge disposal methodologies from treatment plants; and
- Improving efficiency of RO plants and reduction of O&M cost through use of solar photovoltaic (PV) cells.

### Priority area – V

Watershed management to optimise drinking water supply

- Delineation and resource inventory of the micro or mini watersheds;
- Maximization of water conservation and minimization of environmental degradation like erosion, sedimentation, etc.;
- Conjunctive use of water resources – development of effective models; and
- Pilot studies on convergence of various centrally sponsored schemes for achieving drinking water security.

### Priority area – VI

Water-health interaction in the socio economic cultural set up

- Interface problems between engineers/ geologists/ medical scientists on water and sanitation issues;
- Correlation between water constraints and quality of life, especially for communication and social mobilization strategies;
- Nutritional intervention in Fluoride and Arsenic affected villages;
- Methods of bringing about behavioural changes in sanitation, safe water use, etc.;
- Improving water and sanitation governance;
- R&D projects based on multi-centric studies;
- Governance and conflict resolutions in water and sanitation sector; and
- Change management of rural water supply sector Engineers/ Scientists.

### Priority area – VII

Development of appropriate rural sanitation technology

- Design of improved leach pit;
- Hygienic rural toilets;
- Utilization of kitchen waste;
- Protection of open wells/ ponds and

- improved methods of sanitary survey;
- Ecological sanitation and methods for enhancing fertilizer value of digested material;
- Improved methods of solid and liquid waste management;
- Solid waste management especially with regard to reuse/ recycle/ reduce use of plastics; and
- Women menstrual hygiene, baby friendly toilets, special toilets for disabled, infant sanitation, etc.

**Note:** thrust will be given on technology development and demonstration and proving them in the field through trials and transfer of technology for large scale application.

### 3. Approach

The detailed guideline on R&D activities may be seen at the web site <http://MDWS.gov.in> under programme - R&D. The State Government may take up R&D projects in consultation with STA under State Water and Sanitation Organization (WSSO) with the approval of SLSSC. For taking up such R&D projects, GoI guidelines issued by Ministry of Drinking Water and Sanitation may be adhered to with suitable modifications necessary for the State.



## Annexure VII

# Institutional Set Up at State, District, Block and Village Levels

## 1. State Water and Sanitation Mission (SWSM)

As a step towards achieving coordination and convergence among State Departments dealing with Rural Drinking Water Supply, Rural Sanitation, School Education, Health, Women and Child Development, Water Resources, Agriculture etc. a State Water and Sanitation Mission should be set up at the State/UT level. It shall be a registered society under the aegis of the Department/Board/Nigam/Authority/ Agency implementing rural water supply programme in the State. It will be providing the operational flexibility to the States/UTs, so that the desired thrust is made available for an integrated implementation of and institutionalizing community participation under Rural Water Supply Programme and Total Sanitation Campaign/ Nirmal Bharat Abhiyan (TSC/NBA). The State Water and Sanitation Mission (SWSM) shall be headed by the Chief Secretary/Additional Chief Secretary/ Development Commissioner with Secretaries in-charge of PHED, Rural Development (RD), Panchayati Raj (PR), Finance, Health, Education, Women and Child Development, Water Resources, Agriculture, Information and Public Relations (I&PR) as members. Secretary (PHED) (or the Department concerned with rural water supply) shall be the nodal Secretary responsible for all the SWSM activities and for convening the meetings of the Mission. Experts in the field of Hydrology, IEC, HRD, MIS, Media, NGOs etc. may be co-opted as members.

The **State Water and Sanitation Mission (SWSM)** would have the following functions:

- ▶ Provide policy guidance;
- ▶ Convergence of water supply and sanitation activities including Special Projects;
- ▶ Coordination with various State Government Departments and other partners in relevant activities;
- ▶ Monitoring and evaluation of physical and financial performance and management of the water supply and sanitation projects;
- ▶ Integrating communication and capacity development programmes for both water supply and sanitation;
- ▶ Maintaining the accounts for Programme Fund and Support Fund and carrying out the required audits for the accounts.

## 2. State Level Scheme Sanctioning Committee (SLSSC)

One of the policy issues mentioned in the National Rural Drinking Water Programme guideline is about delegation of power for giving technical and administrative approval to the State Government in order to avoid administrative bottlenecks in the execution of the rural water supply schemes and related Support activities viz., WSSO (CCDU), WQM&S, MIS, R&D, M&E, STA etc.

The delegation of powers is subject to the condition that the State Governments have to ensure that proper system of close monitoring and evaluation is in place. The State Governments should furnish complete and

timely information to enable the Government of India to release funds regularly.

In this regard, all States are to constitute a “State Level Scheme Sanctioning Committee” (SLSSC) with the following members:

- ▶ Secretary PHED/Rural Water Supply  
Department: Chairperson
- ▶ Engineer-in Chief, PHED/Rural Water Supply  
Department: Member Secretary
- ▶ Representative of Ministry of Drinking Water and Sanitation, GoI: Member
- ▶ Representative of CGWB, State  
Representative: Member
- ▶ Representative of State and Central Water Commission/Board: Member
- ▶ Representative of State Technical Agency (STA)
- ▶ Technical Expert from reputed State and/or National related institutions
- ▶ Chief Engineer, Planning PHED/Rural Water Supply Department; Member
- ▶ Director, Water and Sanitation Support Organization
- ▶ Any other member (need based) nominated by State Secretary, PHED.

The agenda note for the meeting should be sent to the MDWS 15 days in advance and its representative should invariably be invited to attend the meeting of the State Level Scheme Sanctioning Committee. All the RWS projects and Support activities under all heads to be taken up by the State Government are to be approved by SLSSC.

The functions of SLSSC are:

- ▶ Before the beginning of every year, the State Government will have to prepare an Annual Action Plan on the habitations to be targeted adhering to the prioritisation of habitations to be covered as laid down in the Guidelines, schemes to be taken up and other activities to be taken up in the year.
- ▶ Based on the Annual Action Plan that is finalized after discussions with the MDWS before or in the beginning of the year, the

habitations to be targeted and schemes to be taken up for approval of the State level Scheme Sanctioning Committee should be firmed up and marked on the IMIS.

- ▶ Annual Action Plan of all support activities under WSSO (CCDU), WQM & S, MIS, R&D, M&E etc., to be under taken by State Water and Sanitation Support Organization needs to be prepared and got approved in the SLSSC as per the guidelines issued by MDWS.
- ▶ The schemes put up for approval in the committee should be cleared by the Source Finding Committee and technical approval should be given by the competent authority of the State/UT.
- ▶ State Level Scheme Sanctioning Committee should ensure that all the approved projects are entered on the central online MIS for accounting of habitations addressed/covered during the year.
- ▶ Meetings of the Committee should be held at least twice in a year, wherein apart from sanctioning new schemes, progress, completion and commissioning of the schemes approved earlier by the Committee should be reviewed.

### Source Finding Committee

- ▶ The Committee should invariably review the functioning/performance of existing water supply schemes for availability of potable drinking water in adequate quantity in the rural habitations of the State/UT.

## 3. State Technical Agency (STA)

SWSM in each State in consultation with the Ministry will identify reputed Technical Institutions, designated as State Technical Agencies (STA) to which technical support to PHED/Boards can be outsourced. The STA will be used to fill up gaps in the technical needs of the PHED, as and when required, without resorting to creation of posts and recruitment. PHED/Boards may outsource the designing, preparation of rural water supply projects and

carrying out state specific R&D activities or any other input required by the Ministry, such as preparation of village water security plan etc. The broad function of STA is given below:

- To assist the State Department to plan and design scientifically sound and cost effective rural water supply schemes with special emphasis on sustainability of the source and system.
- To assist the PHED in preparation of action plan for both software activities and hardware activities.
- To evaluate and scrutinize major/ complicated water supply schemes as assigned by the SLSSC/PHED for consideration under SLSSC.
- To provide feedback to the SWSM/SLSSC/ PHED on various aspects of programme and problems encountered in planning and implementation at the field level for possible changes/solution at the State level.
- To engage technical experts on specific assignments.

## 4. Water and Sanitation Support Organization

All States will have to set up Water and Sanitation Support Organization (WSSO) under State Water and Sanitation Mission (SWSM) to deal with WQM&S (DWT Labs), MIS/Computerization, M&E IEC&HRD (WSSO (CCDU)), R&D, etc. The CCDUs for water and sanitation should be merged with the WSSO. These are activities for which 100% fund are provided as Support Funds by Ministry of Drinking Water and Sanitation, Government of India. The personnel can be engaged as per WSSO (CCDU) guidelines and the State Government should clearly define their role and functions. The main functions of WSSO are as follows:

- This organization would deal with software aspects of RWS sector;
- The organizations main function would be to act as a facilitating agency and would function as a bridge between the PHED/

Board and the Community Organizations, assisting the PRIs and GPWSC/VWSCs to prepare water security plan and plan, implement and maintain RWS projects based on the water security plan;

- Take up HRD and IEC activities through the CCDU which has been merged with the WSSO;
- Take up evaluation studies, impact assessment studies, R&D activities and share the findings with PHED for corrective action;
- Take up MIS and computerization programmes, GIS mapping and online monitoring systems, including those for water quality monitoring & surveillance;
- States are encouraged to strengthen WSSO to become Rural Water and Sanitation Support and Management Organisation as described in Annexure-IV.

### Institutional structure :

In States where two separate departments deal with rural drinking water and sanitation, staffing in such states will be as follows:

For Rural Drinking Water		For Sanitation	
Director	1	State Coordinator	1
Consultant HRD and IEC	1	Consultant HRD and IEC	1
Consultant M&E	1	Consultant Sanitation & Hygiene	1
Consultant Hydrogeologist	1	Data Entry Operator	1
Consultant WQM&S	1	Accountant	1
Accountant	1		
Data Entry Operator	1		

In other States where both rural drinking water and sanitation are dealt with by the same Department, WSSO and WSSO (CCDU) may be merged and the staffing may be as follows.

Director	1	Consultant WQM&S	1
Consultant HRD	1	Consultant Sanitation and Hygiene	1
Consultant IEC	1	Accountant	1
Consultant M&E	1	Data Entry Operator	2
Consultant Hydrogeologist	1		

The following scale of 'consolidated monthly emoluments' may be considered. It is however subject to variations decided at State level as per prevailing local conditions, but within the upper limit: (2011 rates)

Director	Rs. 50,000/- to 60,000/-
State Coordinator	Rs. 40,000/- to 50,000/-
Consultants	Rs. 30,000/- to 40,000/-
Accountant	Rs. 15,000/- to 20,000/- (may be on part time basis)
Data Entry Operator	Rs. 10,000/- to 15,000/-

The Salary and Administrative expenditure of the all the above will be borne on the NRDWP Support funds.

The selection of the WSSO staff may be done by a Committee with the following composition or with any changes among state level representatives approved by the State Government:

Principal Secretary/Secretary i/c of RWS in the State	Chairman
Engineer-in-Chief/Chief Engineer, PHED or (RWS dept)/Director (NBA)	Member
Official not below the rank of Joint Secretary in State Govt. or an expert nominated by the State Government	Member
2 representatives of GOI	Members

## 5. District Water and Sanitation Mission (DWSM)

A District Water and Sanitation Mission (DWSM) shall be constituted at the district level and should function under the supervision, control and guidance of Zilla Panchayat/Parishad. States which do not have a proper PRI set up in place, as in case of 6<sup>th</sup> Schedule Areas and desire to supervise the working of the DWSM through alternative mechanism, may put in place a suitable body through which the District Water Security Plan will be prepared and implemented. The entire village water security plan should be consolidated and analyzed at the district level by DWSM. It should prepare a district based water security plan under the guidance of DWSM for implementation. At the district level, convergence of all the other related programmes and funding should be ensured. Some of the major related programmes are, MGNREGS, Integrated Watershed Management Programme projects of Dept. of Land Resources, Ministry of Rural Development, Central and State Finance Commission funds, NRHM, various Watershed and Irrigation schemes of the Ministry of Agriculture, various schemes of the Ministry of Water Resources etc. The composition and functions of DWSM should be as follows:

- ▶ DWSM shall be headed by Chairman of Zilla Parishad. In Districts where Zilla Parishads have not been constituted and there is no Chairman in place, the Chairman of the District Planning Committee or the District Collector/Deputy Commissioner, as may be decided by the State Water and Sanitation Mission will be the Chairperson of the DWSM.
- ▶ The members would be – all MPs/MLAs and MLCs of the District; Chairperson of the Standing Committees of the Zilla Parishad; District Collector/Deputy Commissioner, District Officers of Education, Health, Panchayati Raj, Social Welfare, ICDS, PHED, Water Resources, Agriculture, Information and Public Relation;

- NGOs shall be identified by the District Water and Sanitation Mission and co-opted into the Mission as members.
- The Executive Engineer of PHED/District Engineer of the ZP shall be the Member Secretary and the Drawing and Disbursing Officer. The Member Secretary shall ensure utilisation of the existing infrastructure with him for administrative support for day today functioning.
- The Mission shall meet at least quarterly. In case of MPs/MLAs/MLCs of the district who are also Ministers in Central/State Governments, they may be allowed to depute one representative each on their behalf to the District Water and Sanitation Mission.

The functions of the District Water & Sanitation Mission (DWSM) are as follows:

- formulation, management and monitoring of projects and progress on drinking water security and total sanitation in rural areas;
- scrutiny and approval of the schemes submitted by the Block Panchayat/ Gram Panchayat and forwarding them to SLSSC where necessary;
- selection of agencies and/ NGOs and enter into agreements for social mobilisation, capacity development, communication, project management and supervision;
- sensitising the public representatives, officials and the general public;
- engaging Institutions for imparting training for capacity development of all stakeholders, and undertaking communication campaign;
- coordination of matters relating to water and sanitation between district representatives of Health, Education, Forests, Agriculture, Rural Development, etc as well as National programmes such as SSA, NRHM, ICDS, etc; and
- interaction with SWSM, State Government and the Government of India.

#### **Institutional structure:**

In line with the set up of the WSSO, the DWSM shall require technical and professional inputs in the various activities taking place at the district level in rural water supply and sanitation. Thus staffing at the DWSM shall be permitted as follows:

Consultant HRD	1	Consultant WQM&S	1
Consultant IEC	1	Consultant Sanitation and Hygiene	1
Consultant M&E	1	Accountant	1
Consultant Hydrogeologist	1	Data Entry Operator	1

For Consultants at the DWSM level the minimum experience required is 5 years. They may be paid a 'consolidated monthly remuneration' in the range of Rs. 20000/- to Rs. 30000/-. Allowances may be paid to the DWSM staff after appropriate approvals from the State Government. The Salary and Administrative expenditure of the all the above will be borne on the NRDWP Support funds.

The DWSM manpower may be selected by a Committee with the following members or with any changes among State level representatives approved by the State Government.

Director WSSO	Chairman
Addl./Joint/Deputy Secretary to the Department	Member
An expert to be nominated by the State Departments	Member
2 Expert/Officer nominated by GOI – Director SIRD or his representative/ Regional CGWB or his representative	Member

The States shall be free to recruit functionaries for the DWSM on an outsourcing basis.



## 6) Block Resource Centre (BRC)

1. **Introduction:** With the coming into effect of the National Rural Drinking Water Programme (NRDWP), there has been a shift in focus from mere coverage of habitations to drinking water security at household level and a shift from a supply- driven approach to a demand managed approach. The Total Sanitation Campaign/ Nirmal Bharat Abhiyan aims at ensuring total sanitation coverage by motivating village communities and the Gram Panchayat to lead the campaign and make their village open defecation free. In ensuring adequate safe drinking water and sanitation to all households in rural areas on a long term basis, Gram Panchayats and their Standing committee, viz. Village Water & Sanitation Committees (GPWSC/VWSCs) and Gram Sabhas have to play a critical role. NRDWP also aims at fully empowered, aware and skilled Gram Panchayats capable of planning, implementation, operation, maintenance and management of water supply at village levels. In order to ensure that GPs/ GPWSC/ VWSCs develop understanding of the rural drinking water supply and sanitation programmes, and are empowered to shoulder their responsibilities, they need to be provided with continuous support in terms of creating awareness, training and handholding on various aspects of drinking water supply and sanitation.
2. **Block Resource Centres:** The role of Block Panchayats in rural drinking water and sanitation sector needs to be strengthened to provide guidance, support and monitor water supply and sanitation status in villages. Block Panchayat is the ideal unit for providing support as it is nearer to the Gram Panchayats than the Zilla Panchayat. To achieve this objective, Block Resource Centres (BRC) shall be the institutional set up at the block level to provide continuous

support in terms of awareness generation, motivation, mobilisation, training and handholding to village communities, GPs and GPWSC/VWSCs. The BRC will serve as an extended delivery arm of the District Water & Sanitation Mission in terms of software support and act as a link between it and the GPs/ GPWSC/VWSCs/ village communities. Capacity building and generating awareness among the village community on various aspects of safe drinking water by BRCs will be the first step in improving their understanding to achieve drinking water security in terms of quantity and quality. It will also help the villages in achieving Nirmal Gram status, sustaining and building on it with effective and low cost management of solid and liquid wastes.

3. **Functions of BRCs:** The BRC shall be responsible for following functions:
  - i.) Helping the village community in formation of GPWSC/VWSCs in all villages;
  - ii.) Taking up awareness generation and development communication activities among GP and GPWSC/ VWSC members and the village community;
  - iii.) Conducting training courses at block and village level for members of GPWSC/VWSCs and GPs and other grassroots level workers in the village (ASHA worker, Anganwadi worker, schoolteachers, self help groups, Mahila and Yuvak mandals etc.) on various aspects of water and sanitation. This can be through classroom training, hands on support in villages and exposure visits;
  - iv.) Preparing an Annual Activities Calendar mainly focusing on IEC and training activities and will be responsible for its implementation;
  - v.) Helping the GPs/ GPWSC/VWSCs in baseline surveys, sanitary survey of

- drinking water sources and systems falling within their jurisdiction;
- vi.) Helping the village community/ GPWSC/VWSCs/ GPs in preparation of their Village Action Plan and its approval by the Gram Sabha;
- vii.) Guiding GPWSC/VWSCs in implementing and monitoring the works relating to water supply schemes and sanitation as envisaged in the Village Action Plan;
- viii.) Coordination and follow up with grassroots level workers trained in water quality monitoring and surveillance and ensuring that they take up water quality testing and surveillance activities;
- ix.) Interacting regularly with Panchayats, ASHA workers, anganwadi workers, Self help groups, Mahila and Yuvak mandals to ensure that issues relating to water supply, quality and sanitation get regular attention;
- x.) Visiting schools to deliver talks to sensitize teachers and students to adopt improved hygiene practices, improved sanitation and safe handling of water to keep it potable;
- xi.) Helping in conducting social audits;
- xii.) Coordinating with water quality testing laboratories for water quality testing, reporting to villages, cautioning the GPs/ GPWSC/VWSCs/ PHEDs to take effective steps for maintaining potability and guiding on remedial steps;
- xiii.) Assisting in gathering information for updating habitation status on the IMIS.

- 4. Role of Block Panchayats in BRCs:** The BRCs will be under the administrative control and supervision of Block Panchayats. In case, BRC is run by an NGO, similar reporting arrangements will be followed. BRC shall be supervised by the DWSM at the district level. It shall function

according to the Plan approved by the DWSM. The Block Panchayat will supervise the BRCs to ensure that the functionaries carry out their activities in accordance with the Plan formulated by the Block Panchayat and approved by the DWSM.

- 5. Location of BRC:** The BRC shall be located in the office of the Block Panchayat. However, the Cluster Coordinators shall, as far as possible, be located in their respective clusters.

- 6. Staffing of BRCs:** All functionaries of BRC will be hired by the DWSM through an NGO or an outsourcing agency to provide specific services on contract basis, renewable on a yearly basis, following the process laid down by the SWSM and will be paid a consolidated remuneration. The running of BRCs can also be outsourced by the SWSM to reputed NGOs. To achieve economy of scale, it will be desirable that in a district, all BRCs are managed by a single NGO/out sourcing agency that can be given upto 12% of the total expenditure as service remuneration or overhead (including service tax).

The BRC functionaries engaged will have the following educational qualifications, experience, age limit and remuneration:

## 6.1 Qualification, experience and remuneration of BRC functionaries

S. No.	BRC functionary	Minimum Educational qualification experience	Age limit	Monthly remuneration	Mobility Allowance
1.	Block Coordinator	Graduate in mass communication/ social sciences/ rural studies with two years experience of working on PWSC/VWSC/ WQM&S/ Sanitation, etc.	Between 25 to 35 years. Upper age Limit relaxable in case of exservicemen to 45 years.	Rs. 5,000 /	Rs. 125 per full day of village visit*
2.	Cluster Coordinator	Graduate in mass communication/ social sciences/ rural studies with one year experience of working on PWSC/VWSC/ WQM&S/ Sanitation, etc.	Between 25 to 30 years. Upper age Limit relaxable in case of exservicemen to 45 years.	Rs. 4,500 /	Rs. 100 per full day of village visit*

\*Number of days of village visit should be between 10-15 days in a month. They should attend evening meetings in the villages, preferably with night stay. Field visit of less than 8 hours will be counted as half a day and 50% of the mobility allowance will be paid.

## 6.2 Number of functionaries

There shall be 24 functionaries in the BRC depending on the population of the block as per the following scale. The Gram Panchayats in the Block should be formed into 2, 3 or 4 clusters as the case may be and distributed among the BRC functionaries for handholding.

- i.) Population of block as per 2001 Census (70,000 or less) – 2 functionaries viz. Block Coordinator and Cluster Coordinator.
- ii.) Population of block as per 2001 Census (between 70,000 to 1.5 lakh) – 3 functionaries viz. Block Coordinator and two Cluster Coordinators.
- iii.) Population of block as per 2001 Census (more than 1.5 lakh) 4 functionaries viz. Block Coordinator and three Cluster Coordinators.
- iv.) In case of Andhra Pradesh since the number of blocks are 1099 out of 6442 blocks in the entire country, one Coordinator per block will be allowed.

Based on the need and the State's plan to converge other activities at the BRC level, States can enhance the qualifications, experience or remuneration of the BRC functionaries. However, the additional expenses will be borne by the State Government out of their own resources. SWSM shall fix financial outlays for functionaries, contingencies and other activities for each BRC within the overall Support activities fund. The Ministry of Drinking Water and Sanitation, Government of India shall not bear any liability insofar as the service conditions or tenure of the BRC functionaries is concerned. The decisions regarding selection, service conditions, continuation are the sole responsibility of the respective State Government.

- 7. Selection process:** The SWSM should decide the specific qualification and evaluation criteria, mode of selection, etc. In the case of selection of NGOs, those who have been registered for at least 3 years; already working in water & sanitation / health/ rural development/ water resource development/ forest management, etc.;

having sufficient domain knowledge and expertise of the sector, may be given preference. In case, it is decided to run the BRCs with functionaries engaged from outsourcing agencies, the SWSM may lay down a transparent and objective process for the selection of the outsourcing agency and functionaries at the district level. The selection of the NGO or the Outsourcing agency should be through a State level Selection Committee, preferably, headed by the Secretary of the State in-charge of the Rural Water Supply and Sanitation with representation from Government of India. Similarly, after the selection of the NGO and the outsourcing agency, in the selection of the functionaries by the NGOs or the outsourcing agency at the district or block levels, proper representation of the State/ District administration may be kept.

**8. Roles & responsibilities:** Each BRC shall be headed by a Block Coordinator. Other members of the team shall report to the Block Coordinator. The following role and responsibilities shall be assigned to the members of the BRC.

#### 8.1 Block Coordinator:

- i.) Carrying out all functions of the BRC listed in para 6.3;
- ii.) Doing fieldwork in the Gram Panchayats assigned;
- iii.) Handling matters relating to community mobilization in drinking water and sanitation;
- iv.) Helping the Gram Sabhas in selecting/electing GPWSC/VWSCs in all villages in the block, opening of the Bank account, etc. coordinating with PHED officers incharge of rural water supply and sanitation;
- v.) Training GPWSC/VWSC/ GP members about planning, implementation, operation and maintenance of water supply systems, keeping water

- quality surveillance, maintaining sanitation facilities, etc.;
- vi.) Assisting GPs/ GPWSC/VWSCs to operate and maintain their water supply systems;
- vii.) Getting water samples tested in the water quality testing laboratory and reporting the results to village community/ GPs, GPWSC/VWSCs;
- viii.) Distribution of chlorine tablets if so decided by the Public Health authorities;
- ix.) Coordinating and exchange of information to and from the block level engineer to the block level health officer for taking corrective action in cases of incidence of water and sanitation related diseases;
- x.) Documenting case studies and success stories from villages;
- xi.) Handling day-to-day accounting of BRC expenditure.

#### 8.2 Cluster Coordinator

- i.) Carrying out all roles and responsibilities listed out for the Block Coordinator except handling accounting of BRC expenditure.

**9. Training:** After selection, a 10 day induction training programme should be provided to BRC functionaries to orient and update their knowledge, build capacity and improve skills. The focus should be given on developing their communication skills for dealing with the village community. The training should be so conducted that they become sensitized about the conjunctive use of water which includes quality monitoring and surveillance. They should also have a pro-Panchayat bias and should get proper exposure to the PRIs. After the training, they should be able to explain the basic features of linkages between health, illness, personal and community hygiene practices, safe drinking water,

sanitation, safe handling of water, protection of drinking water sources, etc. BRC functionaries should also be informed about the approaches followed in the sector so that they can transfer this knowledge to GPs/ GPWSC/VWSCs/ village community. A generic module will be prepared by Ministry of Drinking Water and Sanitation and shared with the States. The State Key Resource Centres (KRCs) should prepare the region specific training modules based on the generic module and the Training Needs Assessment. The Ministry of Drinking Water and Sanitation will provide guidance to the KRCs in preparing these modules. The State KRCs should organise the induction training at the district level. At least two weeks of the induction training should consist of village stay and in the field training. The tenure of the selected BRC functionaries shall commence on the first day of the induction training. Only those trainees who successfully complete the induction training should be engaged on duty. Every month, a one-day review cum refresher training meet should be held at the district level by the DWSM to acquaint them with new developments and to foster attitudinal changes among them.

- 10. Financing BRCs:** Expenditure on the functionaries, contingencies and activities of the BRC are to be met out of 5% NRDWP allocation for Support activities. BRC shall work in collaboration with block level staff of other programmes like NRHM, Block Resource Centre of SSA, MNREGS, ICDS, etc. and not as a standalone entity. Training and IEC activities under programmes like TSC/NBA, NRHM, ICDS, etc. shall be dovetailed with BRC activities and convergence of efforts achieved. State Government may also provide additional resources from their own funds to the BRCs.

The officer in-charge of rural water supply and/or CEO, ZP shall ensure that sufficient funds are available at the appropriate level for payment to the NGOs or outsourcing agencies for payment of remuneration and allowances to the BRC functionaries and that these are actually paid to them before 7th day of every month without fail.

A suitable reporting software will be developed and provided by Ministry of Drinking Water and Sanitation for keeping the BRC accounts and for reporting on their physical and financial performance on the Integrated Management Information System of the Ministry.

- 11. Outputs of BRCs:** The SWSM shall quantify the targeted outputs from each DWSM in terms of the following success indicators at the beginning of every year for the year. In turn the DWSM shall quantify the targeted outputs for each BRC against the same indicators. The DWSM is advised to converge IEC and training activities under NRDWP, TSC/NBA, NRHM, SSA, ICDS etc. at the district level so that the messages given under these different programmes cover the aspects of safe water, safe sanitation, hygiene, health and nutrition and the activities in the villages are spread out over the targeted villages. These include:
- i.) Number of village visits done
  - ii.) Number of GPWSC/VWSCs formed – all villages
  - iii.) Number of GPWSC/VWSCs A/c opened – for all GPWSC/VWSCs
  - iv.) Number of Gram Sabhas in which BRC functionaries participated and talked about water, sanitation and hygiene issues
  - v.) Number of schools visited and sensitization/ awareness talks given
  - vi.) Number of anganwadis visited and workers sensitized
  - vii.) Number of trainings conducted at a) village level b) block level for i) GPWSC/



- VWSC members ii) GP members iii) other grassroots level workers
- viii.) Number of mandays of training provided at a) village level b) block level to i) GPWSC/VWSC members ii) GP members iii) other grassroots level workers
- ix.) Number of villages where water quality testing is done by using kits and number of times such tests carried out for all drinking water sources –each drinking water source to be tested minimum 2 times in a year

**12. Role of DWSM:** The DWSM shall monitor the overall functioning and activities of the BRCs and provide necessary guidance to them. It shall ensure training of BRC functionaries, training materials, IEC materials, etc. As per the Annual Action Plan approved by the Block Panchayat and then by the DWSM, the BRC shall prepare a monthly activity plan and put it in the public domain, especially outside the BRC on a notice board. The same shall be approved by the Block Panchayat and monitored on a monthly basis in the Block Panchayat and DWSM meetings. The DWSM shall release funds from the NRDWP Support component to the Block Panchayats for funding the staff expenses, administrative expenses and activities of the BRCs. It shall ensure that the BRC functionaries are paid before 7th day of every month without fail.

**13. Role of SWSM:** The SWSM shall decide on the nature of the BRCs i.e. whether they are to be run by NGOs or the services of functionaries are to be obtained through outsourcing agencies. The role of Block Panchayats and DWSM may vary from State to State depending upon the functions devolved on them. The SWSM shall have powers to appropriately modify the administrative arrangements detailed in these Guidelines, except for the financial limits indicated in para 6, keeping in mind

the spirit of the NRDWP Guidelines viz. strengthening the role of Panchayats in rural water supply and sanitation. It will lay down the detailed selection procedure for the NGOs/ outsourcing agencies/ BRC functionaries and select the NGOs/ agencies. It will entrust development of training modules for induction training and refresher courses for BRC functionaries to Key Resource Centres. It will approve the induction training calendar for training of BRC functionaries to start within 15 days of their selection. The SWSM will transfer funds from the NRDWP Support component to the DWSM for funding the BRCs and will give detailed instructions on their utilisation. It will fix financial outlays for functionaries, contingencies and other activities for each BRC within the Support fund. SWSM shall prescribe/issue detailed instructions about submission of physical and financial progress reports, statement of expenditure, Utilisation Certificate (U.C.) etc. by BRCs so that UC/Audited Statement of Accounts and activity reports for Support activity funds can be finalized by SWSM for onward submission to the Ministry of Drinking Water and Sanitation, Govt. of India, in time.

## 7. Gram Panchayat, Gram Sabha and GP/ Village Water & Sanitation Committee

The Gram Panchayats should be empowered with funds, functions and functionaries and capacity building to plan, monitor, implement and manage rural drinking water supply or schemes within their jurisdiction.

Meetings of the Gram Sabha as the primary block of decentralized governance should be called in the planning, implementation and management phase of water supply schemes to decide on issues like demand, level of service delivery, type of scheme, contribution by households,

concessions to SCs, STs and BPL households, user charges etc.

In order to further decentralize powers and responsibilities and to give greater focus on water and sanitation issues, a Gram Panchayat/ Village Water and Sanitation Committee (GPWSC/VWSC) is to be set up in each Gram Panchayat/Village/Ward for implementation of water supply schemes to ensure the active participation of villagers. This Committee may be merged with the Village Sanitation Health and Nutrition Committee set up under NRHM, so that water, sanitation, nutrition and health issues are tackled together at the village/ward level. The membership of a GPWSC/VWSC may consist of about 6 to 12 persons, comprising members of Panchayat. SCs, STs and poorer sections of the village should be given due representation in the GPWSC/VWSC. At least 50% of GPWSC/VWSC members should be women. This Committee shall function as a Standing Committee/Sub-Committee on Water and Sanitation of the Gram Panchayat and should be an integral part of the Village Panchayat / Block Panchayat for which, if necessary, appropriate amendments in the State Panchayati Raj Act / Rules / Byelaws may be made.

GPWSC/VWSC will be responsible for:

- ▶ planning, designing, and implementing all in-village drinking water and sanitation activities;
- ▶ providing facts and figures to the Gram Panchayat for reviewing water and sanitation issues;
- ▶ providing inputs for the Village Water Security Plan;
- ▶ ensuring community participation and decision making in all phases of in-village scheme activities;
- ▶ organising community contributions towards capital costs, both in cash and kind (land, labour or materials), if any;
- ▶ opening and managing bank account for depositing community cash contributions, O&M funds and management of project funds;
- ▶ commissioning and takeover of completed in-village water supply and sanitation works through a joint inspection with Line Department Staff;
- ▶ collection of funds through a tariff, charges and deposit system for O&M of water supply and sanitation works for proper managing and financing of O&M of the services on a sustainable basis; and empowering of women for day to day operation and repairs of the scheme;
- ▶ for multi village schemes, the Standing Committee of the Block Panchayat could perform a similar role.

## 8. Desirable qualifications and experience of WSSO Specialist Staff (suggestive)

### I. Director

#### Task & Qualification

- ▶ As an Administrative & Technical Head of WSSO (CCDU) it is desirable that the person has minimum 15 years of RWS&S sector knowledge and good understanding about training needs of stakeholders particularly that of PRI/GPWSC/VWSC functionaries. It is also desirable that the person understands Community Participatory Techniques and IEC modules relevant to the sector and is able to develop effective HRD and IEC modules for different stakeholders. Should have experience in programme and project monitoring and evaluation particularly RWS&S sector.
- ▶ Coordinate with all key / resource institutions for planning / developing training packages.
- ▶ Liaise with State Governments / Institutions / external support agencies to develop training strategies and implement training to accelerate the pace of reforms under RWSS sector.
- ▶ Develop monitoring and evaluation plan; monitoring and evaluation formats

and mechanisms mechanisms for HRD implementation and its qualitative impact.

Post-Graduate Degree in Science / Environmental Science / HRD/ Environmental Engineering with at least 15 years experience is desirable.

## II. State Co-coordinator

### Task & Qualification

Post-Graduate Degree in Science / Environmental Science / HRD/ Environmental Engineering with at least 7 years experience is desirable; or

Graduate Degree in Science / Environmental Science / HRD/ Environmental Engineering with at least 10 years experience.

As a State Co-coordinator the tasks remain the same as that of the Director.

## III. Consultants

### (i) HRD Specialist

#### Tasks:

- Identify training needs and develop suitable training modules for RWS, TSC/NBA and School Sanitation
- Prepare Annual Capacity Building Plan for the State and guide the districts in preparing their plans
- Analyze progress reports sent by districts on HRD programmes for review
- Record and update all fund releases to states / districts
- Follow up with districts for regular monthly / quarterly / annual online reporting
- Visit districts to monitor implementation as and when directed
- Prepare & analyse quarterly progress reports for discussion and review with district and block level functionaries
- Undertake any other assignment as directed by Director (WSSO (CCDU))

### Minimum Requirements:

- Post-Graduate Degree in Science / Environmental Science / HRD/ Environmental Engineering with at least 3 years experience in Conducting Trainings / Human Resource Development related to Rural & Community Development or similar field
- Knowledge of participatory methods and their application will be an advantage
- Preference for candidates with experience in Rural Water Supply and rural Sanitation Programme
- Knowledge, ability to use computer; MS Office including graphics is essential
- Should have excellent written and oral communication skills
- Should be updated on development issues, social policies and the ability to liaise with different government departments, resource institutions, NGOs, individual experts
- Ability to work with various partners; establish good working relationships; ability to analyse, negotiate will be additional advantages

### (ii) IEC Specialist

#### Tasks:

- All matters related to IEC activities under the Rural Water Supply and Sanitation Programme
- Develop guidelines, guidance manuals and technical notes on Programme Communications for all the programmes under RWSS Sector
- Preparation of Annual IEC plan for the State and guide the districts to prepare their own plans
- Coordinate dissemination of available IEC materials for Water & Sanitation to all district and blocks
- Documentation of success stories/ best practices/ institutional arrangements etc
- Assist in organising review meetings, seminars, workshops on communication for sanitation / hygiene education; prepare base papers and final reports

- To advise District implementing agencies on IEC aspects of RWS & TSC/NBA implementation: (demand creation / IEC, hygiene promotion, school sanitation & hygiene, technical options, alternative delivery systems, self-help groups, micro-financing for water & sanitation)
- Prepare quarterly progress reports for discussions and review with district and block functionaries

**Minimum requirements:**

- A postgraduate degree in Social Work / Social Science / Extension Services / Communications for Development with at least 3 years experience in the field of communication for Rural Water Supply & Sanitation / Community Health
- Good knowledge & experience of the rural water supply & sanitation programmes, PRI systems and NGO network
- Experience in Communication Strategy development, implementation and impact assessment of IEC interventions
- Knowledge, ability to use computer; MS Office including graphics is essential
- Excellent written and oral communication skills
- Ability to work independently without any secretarial support
- Should be updated on development issues, social policies and have the ability to liaise with various departments, institutions, NGOs and experts
- Ability to establish good working relationships, analyse, negotiate will be additional advantages

**(iii) M&E Specialist**

**Tasks:**

- Ensure data updation and online reporting for all the ongoing RWS&S Projects/ Programmes under Rural Water Supply and Sanitation sector

- Undertake independent monitoring of the implementation of and evaluation of the RWS and TSC/NBA programmes
- Analyse physical and financial progress and prepare status report for SWSM/SLSSC meetings
- Critically analyse the processes adopted under RWS and TSC/NBA by each district and prepare review report
- Liaise with key/resource institutions for developing a monitoring network
- Assist in organizing review meetings, seminars, workshops, on M&E aspect of the RWS&S programme
- Visit districts and blocks to monitor & evaluate the M&E programme adopted and submit reports to Director (WSSO (CCDU))
- Undertake any other assignment as directed by Director (WSSO (CCDU))

**Minimum requirements**

- A degree in Environmental/ Public Health Engineering; or post graduate degree in Science / Statistics / Social Science / with at least 3 years experience in the field of monitoring of Rural Water Supply and Sanitation Rural Development Programmes
- Good knowledge of RWSS/Rural Development Programmes and PRIs functioning
- Knowledge of Evaluation, Monitoring and Appraisal of RWSS / Rural Development Programmes
- Knowledge and ability to use computer, MS office including graphics is essential
- Knowledge of web based / web enabled M & E programmes desirable
- Excellent written and oral communication skills
- Ability to work independently without any secretarial support
- Should be updated on development issues, social policies and have the ability to liaise with various departments, institutions, NGOs and experts
- Ability to establish good working relationships analyze, negotiate will be additional advantages.

## Annexure VIII

# Management Devolution Index - Indicators and Weightages

List of Indicators and weightages for the Management Devolution Index for Rural population managing rural drinking water supply schemes

Sl.No.	Devolution Indicators	Weightage for Sub-Indicator (%)	Unit
1	2	3	4
1	<b>Transfer of Functions to PRIs</b>		
1.1	The State Acts and/ or executive orders/MOUs should clearly define the transfer of responsibility for infrastructure creation of handpumps to PRIs	2	Fully – 1 Partly– 0.5 Nil - 0
1.2	The State Acts and/ or executive orders/MOUs should clearly define the transfer of responsibility for infrastructure creation of Single Village Piped Water Schemes to PRIs for	2	Fully – 1 Partly– 0.5 Nil - 0
1.3	The State Acts and/ or executive orders should clearly define the transfer of responsibility for O&M of Hand Pumps to PRIs	2	Fully – 1 Partly– 0.5 Nil - 0
1.4	The State Acts and/ or executive orders should clearly define the transfer of responsibility for O&M of Single Village Piped Water Supply Schemes to PRIs	2	Fully – 1 Partly– 0.5 Nil - 0
1.5	Proportion of Handpumps whose O&M has been transferred to PRIs	2	Max – 1 Min - 0
1.6	Proportion of Single Village Piped Water Schemes whose O&M has been transferred to PRIs	2	Max – 1 Min - 0
1.7	The GPWSC/VWSCs should be Standing/Sub-Committees of GPs under the State Act/Rules	2	Y – 1 N- 0
1.8	Proportion of Drinking Water sources for which water quality testing done during the previous years as per the IMIS	6	Y – 1 N- 0
	<b>Total for Functions</b>	<b>20</b>	
2	<b>Availability/Transfer of funds to PRIs</b>		
2.1	Proportion of NRDWP (Coverage and Quality) funds (Central + State share), transferred to PRI*/DWSM subordinate to ZP accounts.	15	Max -1 Min - 0



2.2	Proportion of NRDWP (O&M) (Central +State share) transferred to Gram Panchayats accounts	15	Max -1 Min - 0
2.3	Whether untied grants from State Plan/non-plan have been transferred to all GPs in preceding financial year	5	Max -1 Min - 0
2.4	Whether untied grants from State Finance Commission have been transferred to all GPs in preceding financial year	5	Max -1 Min - 0
2.5	Whether unit charges of electricity for pumping in drinking water supply schemes by PRIs equal to or lesser than lowest slab of unit charge for domestic consumers	5	Yes -1 No - 0
2.3	Percentage of water charges demand collected by PRIs	5	Max -100% Min - 0
	<b>Total for funds transfer to PRIs</b>	<b>50</b>	
3	Functionaries made available to Support PRIs.		
3.1	Proportion of blocks where block level Diploma/Graduate engineers are available in PHED/PRED/ZP/BP @ one for 1 lakh rural population exclusively for rural water supply and sanitation	5	Max -1 Min - 0
3.2	Proportion of filled up DWSM Consultants positions	5	Max -1 Min - 0
3.3	Proportion of filled up BRC Coordinators positions	5	Max -1 Min - 0
3.4	Proportion of GPWSC/VWSC members trained in RWS functions for at least two days	5	Max -1 Min - 0
3.4	Proportion of NRDWP Support funds spent on IEC and HRD activities	5	Max -1 Min - 0
	<b>Total for functionaries support to PRIs</b>	<b>25</b>	
4	Good management indicators		
4.1	Proportion of households in State provided with household connections	2	Max -1 Min - 0
4.2	Proportion of villages with bulk water supplies metered	3	Max -1 Min - 0
	<b>Good management Indicators</b>	<b>5</b>	
	<b>Management Devolution Index</b>	<b>100</b>	

## Annexure IX

# Proforma for Release of Funds Under National Rural Drinking Water Programme (NRDWP)

Name of the State/UT:

(Rs. in lakh)

SCSP	TSP	General	Total
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### NRDWP

1. Unutilised opening balance as on 1st April of the previous year
  - NRDWP
  - DDP – Areas
  - Water Quality (earmarked Funds)
  - Support funds
  - WQM&S Funds
  - Special assistance/Calamity, if any
2. Amount released during the previous year
  - NRDWP
  - DDP – Areas
  - Water Quality (earmarked Funds)
  - Support funds
  - WQM&S Funds
  - Special assistance/Calamity, if any
3. Total Available funds during the previous year
  - NRDWP
  - DDP – Areas
  - Water Quality (earmarked Funds)
  - Support funds
  - WQM&S Funds
  - Special assistance/Calamity, if any
4. Expenditure during the previous year
  - A. NRDWP
    - a) Coverage
    - b) Water Quality
    - c) Sustainability
    - d) O&M
  - B. DDP – Areas
  - C. Water Quality (earmarked Funds)

SCSP	TSP	General	Total
------	-----	---------	-------

- D. Support funds
  - E. WQM&S Funds
  - F. Special assistance, if any (e.g. Calamity fund release)
5. Unutilised closing balance at the end of the previous year as per IMIS report
- A. NRDWP
    - a) Coverage
    - b) Water Quality
    - c) Sustainability
    - d) O&M
  - B. DDP – Areas
  - C. Water Quality (earmarked Funds)
  - D. Support funds
  - E. WQM&S Funds
  - F. Special assistance, if any (e.g. Calamity fund release)
6. Amount released during the current financial year:
- A. NRDWP
    - a) Coverage
    - b) Water Quality
    - c) Sustainability
    - d) O&M
  - B. DDP – Areas
  - C. Water Quality (earmarked Funds)
  - D. Support funds
  - E. WQM&S Funds
  - F. Special assistance, if any (e.g. Calamity fund release)
7. Total available funds during the current financial year:
- A. NRDWP
    - a) Coverage
    - b) Water Quality
    - c) Sustainability
    - d) O&M
  - B. DDP – Areas
  - C. Water Quality (earmarked Funds)
  - D. Support funds
  - E. WQM&S Funds
  - F. Special assistance, if any (e.g. Calamity fund release)
8. Expenditure as per latest IMIS report
- A. NRDWP
    - a) Coverage
    - b) Water Quality
    - c) Sustainability
    - d) O&M
  - B. DDP – Areas
  - C. Water Quality (earmarked Funds)

SCSP	TSP	General	Total
------	-----	---------	-------

- D. Support funds
- E. WQM&S Funds
- F. Special assistance, if any (e.g. Calamity fund release)

## MNP

- 9. Provision during the last year  
Expenditure incurred during the previous year
- 10. Provision during the current financial year  
Expenditure upto the last month as per IMIS report
  - a) Coverage
  - b) Water Quality
  - c) Sustainability
  - d) O&M

## TOTAL EXPENDITURE

- 11. Expenditure incurred during the previous year under SCs/STs
 

	MNP		NRDWP	
	Amount	% of the total expdtr.	Amount %	of the total expdtr.
(a) SCs				
(b) STs				
Total				
- 12. Expenditure incurred on O&M during the previous year
 

	MNP		NRDWP	
	Amount	% of the total expdtr.	Amount %	of the total expdtr.
- 13. Expenditure incurred on Sustainability during the previous year
 

	MNP		NRDWP	
	Amount	% of the total expdtr.	Amount %	of the total expdtr.
- 14. (a) Cost of schemes cleared upto the previous year  
 (b) Expenditure incurred upto the end of previous year  
 (c) Balance liability (amount) required for completion of ongoing incomplete schemes/  
       schemes yet to be started  
 (d) Schemes cleared in the current financial year upto the month of \_\_\_\_\_

### Note:

- (i) District-wise breakup of the liability may be given in a separate annexure.
- (ii) If the amount in (c) above is more than the difference between (a) & (b), reasons thereof may be given.
- 15. The following certificates/statements may be enclosed for NRDWP, MNP, DDP and M&I Units separately:
  - (i) Certified Audited expenditure figures by the State Accountant General for the year before the previous financial year. If not available, reasons thereof.

- (ii) A printout from IMIS of statement indicating district-wise data of actual expenditure in the previous year and budget provision during the current financial year.
- (iii) A printout from IMIS of Utilisation Certificate format of actual expenditure under MNP, NRDWP, DDP and M&I Units in the previous financial year certified by the Secretary in-charge of RWS.
- (iv) Certificate that State Government is giving priority to the unfinished works and that quality and durability of works is given due consideration.
- (v) Certificate that centage charges, escalation in cost of NRDWP schemes due to time and cost overrun has not been met out of NRDWP funds. If met from NRDWP, please give details of the amount in each year and whether prior approval of Govt. of India was obtained.

16. Details of funds released in the current financial year to the implementing agencies:

Programme	Name of the Agency	Amount released to Agency	Order No. & Date of release
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State

NRDWP

Signature

(of Secretary in-charge of Rural Water Supply)

Place

Date



## Annexure X

# Utilization Certificate for the Year 20\_\_-20\_\_

(To be certified by Secretary in-charge of RWS)

(Allocation, Release and Utilisation of funds under SCSP, TSP and general to be mentioned separately in Paras 1 & 2)

## Central Funds / State Funds\*

Sl. No                      Letter No. and date                      Amount

Total

1. Certified that a sum of Rs. \_\_\_\_\_ only was received by ..... (as the case may be) as Grants-in-Aid during 20\_\_ - \_\_ from Government of India / (State Name)\* as per details given in the margin. A sum of Rs. \_\_\_\_\_ only was the Bank interest credited to the Programme Account / Support Account\*. Further, a sum of Rs. \_\_\_\_\_ only being unspent balance of the previous year 20\_\_ - \_\_ was allowed to be brought forward for utilization during the year.
2. It is also certified that out of the above mentioned total fund of Rs. \_\_\_\_\_ only a sum of Rs. \_\_\_\_\_ only has been utilized with effect from ..... to ..... for the purpose for which it was sanctioned. It is further certified that the unspent balance of Rs. \_\_\_\_\_ only was remaining unutilized at the end of the year and has been allowed to be utilized for the Programme next year.

S. No.	Particulars	Amount (Rs, Lakh)			
		SC	ST	Gen	Total
1.	Opening Balance				
2.	Receipt of Grants (i) Sanction Order No. and Date (ii) Sanction Order No. and Date .....				
3.	Interest				
4.	Other Receipts				
	Total Fund				
5.	Expenditure				
6.	Closing Balance				

3. Certified that I have satisfied myself that the conditions on which the grants-in-aid was sanctioned have been duly fulfilled / are being fulfilled and that I have exercised the following checks to see that the money was actually utilized for the purpose for which it was sanctioned.
  - i) The Statement of Accounts from ..... to ..... duly audited by Chartered Accountant / Auditor General (as the case may be) have been received and accepted.

- ii) It has been ensured that the physical and financial performance has been according to the requirements as prescribed in the Programme Guidelines issued by the Government of India / State\*.

4. The utilization of the aforesaid fund resulted into the following:

- i) Outcomes in terms of Coverage (in verifiable term)

<b>a. Coverage of Partially Covered Habitations till the month of .....</b>				
<b>S.No.</b>	<b>Population Coverage Category</b>	<b>AAP target for the Year</b>	<b>Achievement till../ during the year</b>	<b>% Achievement</b>
1.	0% Population			
2.	0-25% Population			
3.	25-50% Population			
4.	50-75% Population			
5.	75-100% Population			
6.	100% Population			
7.	Total			
8.	SC concentrated habitations			
9.	ST concentrated habitations			
10.	Habitations in Minority Concentrated districts			
11.	Habitations in IAP districts			
12.	Total			
<b>b. Coverage of Quality Affected Habitations till the month of ..... (with WQ funds under Coverage)</b>				
<b>S.No.</b>	<b>Contamination</b>	<b>AAP target for the Year</b>	<b>Achievement till../ during the year</b>	<b>% Achievement</b>
1.	Arsenic			
2.	Fluoride			
3.	Iron			
4.	Nitrate			
5.	Salinity			
6.	Other Chemical Contamination			
7.	JE/AES affected			
	Total			

<b>c. Coverage of Quality Affected Habitations till the month of ..... (with Earmarked WQ funds)</b>				
<b>S.No.</b>	<b>Contamination</b>	<b>AAP target for the Year</b>	<b>Achievement till../ during the year</b>	<b>% Achievement</b>
1.	Arsenic			
2.	Fluoride			
3.	Iron			
4.	Nitrate			
5.	Salinity			
6.	Other Chemical Contamination			
7.	JE/AES affected			
	Total			
<b>d. Coverage of Schools and Anganwadis</b>				
1.	Number of Schools			
2.	Number of Anganwadis			
	Total			

**ii) Outcomes in terms of Schemes Implemented (in verifiable term)**

<b>S. No.</b>	<b>Type of Schemes implemented</b>	<b>AAP target for the Year</b>	<b>Achievement till../ during the year</b>	<b>% Achievement</b>
a.	Handpumps			
b.	Single village Piped Water Supply schemes Surface sources Ground Water Sources			
c.	Multi village Piped Water Supply schemes Surface sources Ground Water Sources			
d.	Others (dugwell, sanitary well)			
e.	Sustainability structures with category			

Signature

Designation

Place

Date

Counter Signature

(of Secretary in-charge of Rural Water Supply)

Place

Date

## Annexure XI

# Water Quality Earmarked allocation – Guidelines for Utilisation

**Guidelines for utilization of the earmarked 5 % Water Quality Fund under NRDWP for habitations having chemical contamination of drinking water sources and high priority districts affected with Japanese Encephalitis/Acute Encephalitis Syndrome (JE/AES)**

## 1.0 Background

Chemical contamination of drinking water, especially of Arsenic and Fluoride, is a major concern in drinking water supply. The number of habitations and population in States with at least one drinking water source affected with chemical contamination, as on 1.4.2011, is 1,21,501 habitations with 6.02 crore population. Bacteriological contamination in drinking water is a major cause of gastrointestinal disease having a significant impact on Infant Mortality Rates and diarrhoeal deaths. Cases of Acute Encephalitis Syndrome (AES) are also attributed to some extent, to bacteriological contamination of drinking water. The Ministry of Health and Family Welfare has identified 60 districts which are the most affected with JE/AES, the list of which is at para 9.0 in this chapter.

Under the existing NRDWP Guidelines, 20 % of the Statewise allocation is to be utilized for Water Quality component for providing safe drinking water to water quality affected habitations. States have also been given flexibility to utilize the Coverage component funds also for Water Quality and vice versa. However, available reports on IMIS show that only about 14 % of total expenditure is on Water Quality component. The goal of covering nearly 1 lakh habitations (as on 1/4/2012), remaining to be covered with safe drinking water, as envisaged under Bharat Nirman is yet to be achieved. It is therefore considered necessary to give greater thrust to this task of covering all water quality affected habitations especially the arsenic and fluoride affected habitations.

Considering the need to tackle chemical contamination in rural habitations and JE/AES in select districts, Government of India in June 2012 has approved a modification in the NRDWP Guidelines, earmarking 5% of NRDWP funds for allocation to States, with habitations having chemical contamination of drinking water sources and with Japanese Encephalitis/Acute Encephalitis Syndrome (JE/AES) affected priority districts.

## 2.0 Earmarked 5% Fund an Additionality to 20 % Water Quality component

This 5% fund will be set aside from the total allocation under NRDWP. These Earmarked funds are an additionality to be used to cover water quality habitations over and above the habitations to be covered using 20 % Water Quality component funds allocated to the States.

### 3.0 Allocation of Funds to the States

Of the Earmarked 5 % Water Quality funds, 75% would be provided for chemical contamination based on the population in the water quality affected habitations to be covered as on 1/4/2011 as entered by the States on the online IMIS of the Ministry. The remaining 25% would be provided for the 60 priority districts affected with JE/AES and distributed on the basis of the number of drinking water sources in rural areas in these districts, as entered on Integrated Management Information System (IMIS) of the Ministry as on 1/4/2011, and extent of contamination as per Multi-District Assessment of Water Safety survey conducted by UNICEF in these States.

The earmarked 5% fund would be allocated among States as per the following criteria:

Earmarked Allocation for Water Quality Affected States	Type of Contamination / disease	Weightage %	Contamination	Weightage to population in rural habitations reporting contamination as on 1/4/2011 in %
5% of NRDWP Allocation	Chemical Contamination	75	Arsenic	40
			Fluoride	45
			Iron	5
			Nitrate	5
			Salinity	5
	JE/AES affected priority districts	25	Drinking Water sources estimated as affected	100

### 4.0 Guidelines for Expenditure under 5 % NRDWP Funds: The 5 % WQ earmarked funds should be utilized as under:

#### 4.1 In Water Quality affected habitations

- The State Governments are required to formulate an Action Plan for tackling the water quality problems, as per the template annexed (Annexure III with details of schemes under 20% Water Quality component & Annexure XI with details of schemes under earmarked 5% Water Quality fund) with the guidelines and send the same to MDWS for discussions, and modify if necessary, to facilitate release of funds and monitoring. The States are required to provide details of schemes habitation-wise in Appendix V and Appendix VI of the instructions.
- The Action Plan will comprise of names of the water quality habitations targeted, over and above the QA habitations already targeted with 20% WQ Component, with details of the contaminants found, type of scheme, technology adopted, estimated cost, time frame for implementation, modalities of O & M by PRIs/State implementing agency. The action plan should indicate the left over and the targeted number of habitations affected with specific quality problems.
- The schemes should be taken up to cover the quality affected habitations in the order of priority, first covering the habitations with the highest extent of arsenic, then the habitations with highest extent of fluoride, and then other contaminants.

- The State Governments shall devise an integrated approach for technology options covering single village schemes, comprehensive piped water supply schemes, low cost treatment plants, domestic filters, in-situ water conservation, supply of safe drinking water from safe sources, additionality/improvement in existing drinking water supply schemes etc.

## 4.2 JE/AES Districts

- States should prepare an Action Plan in the prescribed template at the beginning of the year incorporating the following activities, timelines, estimated costs and names of habitations to be covered with new water supply schemes with these funds.
- Initially baseline survey of existing drinking water sources should be carried out with NRDWP (Support) funds.
- JE/AES cases which are shown district wise should be broken down to habitation-wise in the descending order of cases for each district.
- Test all public water sources for bacteriological contamination (Faecal coliform) including virological testing with NRDWP (WQMS) fund.
- Test all private handpumps for bacteriological contamination using FTKs and if found unfit for consumption, the households may be strongly advised not to use it for drinking purpose or to treat it with halogen tablets/chlorination before use or seal it if the household agrees.
- Repair existing hand pumps to prevent further contamination of water, such as, repair of platform, soak pit, raising of hand pumps in flood prone areas, chlorination of hand pumps.
- Replace public shallow hand pumps in respective habitations by India Mark-II hand pumps.
- Mini water supply schemes in feasible habitations where JE/AES cases have been reported with energized deep borewell and standposts with adequate number of taps and provision for chlorination.
- Routine regular chlorination of drinking water sources and supplied water.
- Safe drinking water facility in schools/anganwadis with NRDWP (Coverage) funds.
- Widely publicize Dos and Don'ts for sanitary check near hand pumps, standposts and safe sanitation with NRDWP (Support) funds.

## 5.0 Dual Water Policy

As mentioned in the NRDWP Guidelines, dual water policy may be adopted where there is constraint of water resources or costs.

## 6.0 Other Provisions

All other provisions of NRDWP for Planning, Sanctioning, Fund Release procedure, Involvement of GPs and GPWSC/VWSCs, Approval of schemes by SLSSC, Monitoring, Reporting and Community involvement of the schemes shall remain as per existing NRDWP guideline.

## 7.0 Monitoring & Evaluation

The targeted habitations should be marked on IMIS of the website of the Ministry and the achievements shall have to be entered on the IMIS periodically. All other provisions for Monitoring on the IMIS shall continue as in the NRDWP Guidelines and IMIS instructions.



## 8.0 WQM&S, IEC & Capacity building

(Kindly refer to Annex IV-A of the existing NRDWP Guidelines for more information on IEC Guidelines for Rural Drinking Water Supply).

The 5% NRDWP Support Fund and the 3% Water Quality Monitoring and Surveillance funds should be used in these habitations to take up intensive IEC and capacity building activities.

## 9.0 List of 60 Most Seriously affected Districts with Japanese Encephalitis (JE) and Advanced Encephalitis Syndrome (AES)

S.N	State	District
1	ASSAM	BARPETA
2	ASSAM	DHEMAJI
3	ASSAM	DIBRUGARH
4	ASSAM	GOLAGHAT
5	ASSAM	JORHAT
6	ASSAM	LAKHIMPUR
7	ASSAM	SIBSAGAR
8	ASSAM	SONITPUR
9	ASSAM	TINSUKIA
10	ASSAM	UDALGURI
	<b>ASSAM Total = 10</b>	<b>Total = 10</b>
11	BIHAR	ARARIA
12	BIHAR	DARBHANGA
13	BIHAR	GAYA
14	BIHAR	GOPALGANJ
15	BIHAR	JEHANABAD
16	BIHAR	MUZAFFARPUR
17	BIHAR	NALANDA
18	BIHAR	NAWADA
19	BIHAR	PASHCHIM CHAMPARAN
20	BIHAR	PATNA
21	BIHAR	PURBA CHAMPARAN
22	BIHAR	SAMASTIPUR
23	BIHAR	SARAN
24	BIHAR	SIWAN
25	BIHAR	VAISHALI
	<b>BIHAR Total = 15</b>	<b>Total = 15</b>
26	UTTAR PRADESH	AZAMGARH
27	UTTAR PRADESH	BAHRAICH
28	UTTAR PRADESH	BALLIA
29	UTTAR PRADESH	BALRAMPUR
30	UTTAR PRADESH	BASTI

S.N	State	District
31	UTTAR PRADESH	DEORIA
32	UTTAR PRADESH	GONDA
33	UTTAR PRADESH	GORAKHPUR
34	UTTAR PRADESH	HARDOI
35	UTTAR PRADESH	KANPUR DEHAT
36	UTTAR PRADESH	KUSHINAGAR
37	UTTAR PRADESH	LAKHIMPUR KHERI
38	UTTAR PRADESH	MAHARAJGANJ
39	UTTAR PRADESH	MAU
40	UTTAR PRADESH	RAE BARELI
41	UTTAR PRADESH	SAHARANPUR
42	UTTAR PRADESH	SANT KABIR NAGAR
43	UTTAR PRADESH	SHRAVASTI
44	UTTAR PRADESH	SIDDHARTH NAGAR
45	UTTAR PRADESH	SITAPUR
	<b>UTTAR PRADESH</b>	<b>Total = 20</b>
46	TAMIL NADU	KARUR
47	TAMIL NADU	MADURAI
48	TAMIL NADU	THANJAVUR
49	TAMIL NADU	TIRUVARUR
50	TAMIL NADU	VILLUPURAM
	TAMIL NADU	Total = 5
51	WEST BENGAL	BANKURA
52	WEST BENGAL	BARDHAMAN
53	WEST BENGAL	BIRBHUM
54	WEST BENGAL	DAKSHIN DINAJPUR
55	WEST BENGAL	DARJEELING
56	WEST BENGAL	HOOGHLY
57	WEST BENGAL	HOWRAH
58	WEST BENGAL	JALPAIGURI
59	WEST BENGAL	MALDA
60	WEST BENGAL	MIDNAPUR WEST
	<b>WEST BENGAL</b>	<b>Total = 10</b>

## Annexure XII

# Checklist – For Release of 2<sup>nd</sup> Installment of NRDWP funds

TO BE SUBMITTED BY THE STATE WHILE SUBMITTING PROPOSAL FOR RELEASE OF FUNDS UNDER NATIONAL RURAL DRINKING WATER PROGRAMME

SL. No.	DOCUMENTS	Whether enclosed/ fulfilled (Please Tick)	
1	Specific proposal submitted	Yes	No
	It is in the prescribed proforma	Yes	No
2	Utilization Certificates in original for year 2011-12 and 2012-13 (Provisional) furnished separately for Central funds	Yes	No
	State Fund	Yes	No
3	Utilization Certificates has file reference	Yes	No
	Signed by the Head of the fund recipient Department/Board/Authority/ Corporation/Body	Yes	No
	Countersigned by the Principal Secretary/ Secretary of the concerned Department	Yes	No
	With official seal	Yes	No
	Name of the signatory	Yes	No
4	The State has utilized 60%/75% of total available resources (Central & State Fund separately)	Yes	No
5	Audit Report/Audited Statement of Accounts as per prescribed format for the year 2011-12 has been submitted	Yes	No
6	Chartered Accountant is a CAG empanelled Chartered Accountant	Yes	No
7	Copy of the letter issued by O/o CAG has been furnished in support of empanelment	Yes	No
8	Statement from the Bank Authority needs to be submitted along with Audit report in respect of available balance with the SWSM as on 31st March of the financial year.	Yes	No
9	The figures of Grants	Yes	No
	Expenditure	Yes	No
	(c) Opening/closing balances	Yes	No
	reported in the U.Cs are in agreement with Audit Report	Yes	No

10	If no, clarifications have been given for the variations	Yes	No
11	Action Taken Report on the observations made by the Auditor in the Audit Report has been furnished	Yes	No
12	The State-matching share has been utilized in the previous year	Yes	No
	shortfall has been released in the current year	Yes	No
13	Certificate from the State Government that the unfinished works are given priority for completion is enclosed.	Yes	No
14	Certificate that all schemes approved by the State Level Scheme Sanctioning Committee in the last six months have been taken up for implementation is enclosed.	Yes	No

**Annexure XIII**

# **Format for Audit Report - NRDWP**

## **AUDIT REPORT**

**(Consolidated Audit Report for NRDWP Programme/Support)**

**(Audit reports for programme Fund and Support fund to be submitted separately)**

Containing following points :-

1. Auditor's Report
2. Receipt & Payment Account.
3. Income & Expenditure Account
4. Balance sheet
5. Notes Forming Part of Accounts (Reporting about physical output)
6. Auditor's observations as 'Annex' (in case of any observation, reply countersigned by Chartered Accountant is required)

N.B: All the documents should be in original & countersigned by Competent Authority of SWSM with official stamp.

## AUDITOR'S REPORT

To

The State Water and Sanitation Mission

Address

1. We have audited the attached Balance Sheet of State Water and Sanitation Mission ('the Grantee') "Account -National Rural Drinking Water Programme (NRDWP)" as at March 31, 2012 and also the Income and Expenditure Account and Receipts and Payment Account for the year ended on that date annexed thereto. These financial statements are the responsibility of the Grantee's management. Our responsibility is to express an opinion on these financial statements based on our audit.
2. We conducted our audit in accordance with auditing standards generally accepted in India. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.
3. Further to our comments in the Annexure referred to above, we report that:
  - i. We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purposes of our audit;
  - ii. In our opinion, proper books of account as required have been kept by the Grantee so far as appears from our examination of those books;
  - iii. The balance sheet, income and expenditure account and receipts and payment account dealt with by this report are in agreement with the books of account;
  - iv. In our opinion, and to the best of our knowledge and according to the explanations given to us and subjects to our observations annexed herewith we report that :
    - a. The Balance Sheet, gives a true and correct view of the state and affairs of the Grantee "Account -National Rural Drinking Water Programme(NRDWP) " as on 31.3.2012.
    - b. The Income and Expenditure Account gives a true and correct view of excess of income over expenditure for the period ended 31.03.2012.
    - c. The receipts and Payment Account gives a true and correct view of the transactions under the programme/scheme for the period ended on 31.03.2012.
    - v. Expenditure reported in the Income and Expenditure account is properly reflected in the Utilization Certificate(s) for the same period.

Signature of Chartered Accountant with Seal)

Name in full\_\_\_\_\_

Membership No.\_\_\_\_\_

CAG Empanelment No. & Year

Contact No.

## Statement of Component wise break up of Receipts

State Water and Sanitation Mission \_\_\_\_\_

This is to certify that following are the component wise breakup details of the funds received under NRDWP for the year.

	Opening Balance	Grants	Bank Interest	Expenditure	Closing Balance
Coverage					
Water Quality					
Sustainability					
Operation and Maintenance					
<b>Sub total</b>					
Earmarked Funding (Chemical)					
Earmarked Funding (Bacteriological)					
Calamity					
DDP					
<b>Total (Programme Fund)</b>					
NRDWP Support -					
IEC					
HRD					
R&D					
MIS					
Others					
<b>Subtotal</b>					
WQM&S					
<b>Total programme + Support Funds</b>					

Signature of Competent Authority

(Signature of Chartered Accountant with Seal)

Name in full

Name in full\_\_\_\_\_

Office seal

Membership No.\_\_\_\_\_

Contact No.

CAG Empanelment No. &amp; Year

Contact No.



## Audit Report for the year 20..-..

State Water and Sanitation Mission \_\_\_\_\_

Receipt & Payment Accounts for the period 1st April, 20.. to 31st March, 20..

Name of the scheme-National Rural Drinking Water Programme (NRDWP)

(₹ in lakhs)

Receipt	Amount	Payment	Amount
1. Opening Balance (i) Cash in Hand (ii) Cash at Bank (iii) Deposits at Division/Districts etc. 2. Receipt of Grants (i) Central Government (ii) State Government (iii) Other Agencies 3. Interest received from Banks 4. Refund of Advance/ Loan/Grant from (i) Implementing Agencies (ii) Any other agencies etc. 5. Miscellaneous		1. Advances given to (i) Implementing Agencies (ii) Any other agencies etc. 2. Expenditure incurred for the purpose of approved work undertaken under National Rural Drinking Water Programme: <b>NRDWP</b> <b>Prog.</b> Coverage Water Quality Sustainability Operation & Maintenance DDP Calamity etc. <b>Support &amp; WQM&amp;S</b> 3. Audit Fees 4. Expenses on Administration (If allowed under the scheme) a. Salary and Allowances b. Traveling Expenses c. Rent, Rates and Taxes d. Printing and Stationery e. Publicity and Propaganda f. Bank Charges 5. Miscellaneous Expenses etc. 6. 7. Closing Balance	

Signature of Competent Authority

(Signature of Chartered Accountant with Seal)

Name in full

Name in full\_\_\_\_\_

Office seal

Membership No.\_\_\_\_\_

Contact No.

CAG Empanelment No. & Year

Contact No.

## Audit Report for the year 20..-..

State Water and Sanitation Mission \_\_\_\_\_

Income & Expenditure Accounts for the period 1st April, 20.. to 31st March, 20..

Name of the scheme- National Rural Drinking Water Programme (NRDWP)

(₹ in lakhs)

Expenditure	Amount	Income	Amount
1.Expenditure incurred for the purpose of approved work undertaken under National Rural Drinking Water Programme: <b>NRDWP</b> <b>Prog.</b> Coverage Water Quality Sustainability Operation & Maintenance DDP Calamity etc. <b>Support &amp; WQM&amp;S</b> 2. Audit Fees 3. Expenses on Administration (If allowed under the scheme) a. Salary and Allowances b. Traveling Expenses c. Rent, Rates and Taxes d. Printing and Stationery e. Publicity and Propaganda f. Bank Charges 4. Miscellaneous Expenses etc. <b>5. Excess of Income over Expenditure carried over to Balance Sheet.</b>		1.Grants -in -Aid/Subsidy received from (a) Central Govt. (b) State Govt. (c) Other Agencies 2. Interest received during the year from the Bank Accounts Received during the year Add: Accrued during the year Less: related to previous year 3. Refund of unutilized grants by the Implementing Agencies 4. Miscellaneous Receipts <b>5. Excess Expenditure carried over to Balance sheet.</b>	

Signature of Competent Authority

(Signature of Chartered Accountant with Seal)

Name in full

Name in full\_\_\_\_\_

Office seal

Membership No.\_\_\_\_\_

Contact No.

CAG Empanelment No. & Year

Contact No.

## Audit Report for the year 20..-..

State Water and Sanitation Mission \_\_\_\_\_

Balance Sheet as on 31st March, 20..

Name of the scheme- National Rural Drinking Water Programme (NRDWP)

(₹ in lakhs)

CAPITAL FUND AND LIABILITIES	Previous Year Amount	Current Year Amount
<b>Accumulated Fund</b> Opening Balance Add/Deduct Balance Transferred From Income & Expenditure Account <b>Current Liabilities</b> i. Outstanding Expenses/Payables ii. Any other Liability		
<b>Total</b>		
<b>ASSETS</b>		
<b>Fixed Assets</b> (i) Vehicles (ii) Furniture & fixtures (iii) Office Equipment (iv) Computers & Peripherals (v) Others etc. <b>Current Assets &amp; advances</b> (i) Stock (ii) Temporary Transfer of Funds to other schemes recoverable (iii) Closing Balance (a) Cash in Hand (b) Cash at Bank (c) Account Receivables and Advances recoverable (i) Implementing Agencies (ii) Other Agencies (iii) Staff (iv) Suppliers etc.		
<b>Total</b>		

Signature of Competent Authority

Name in full

Office seal

Contact No.

(Signature of Chartered Accountant with Seal)

Name in full \_\_\_\_\_

Membership No. \_\_\_\_\_

CAG Empanelment No. & Year

Contact No.

## Notes Forming part of the Accounts :

**Physical Output ( National Rural Drinking Water Programme/Support) for the utilized funds as reported in the Income and Expenditure Account:**

Components of National Rural Drinking Water	Physical Output (in verifiable term)
<b>Programme:</b> I. Handpumps II. Single village Piped Water Supply schemes - Surface sources - Ground Water Sources III. Multi village Piped Water Supply schemes - Surface sources - Ground Water Sources IV. Others (dugwell, sanitary well) V. Sustainability structures with category etc. <b>Support</b> 1. HRD and Capacity building - training 2. IEC 3. R&D 4. MIS and Computerisation 5. Others (if any)	

Signature of Competent Authority

(Signature of Chartered Accountant with Seal)

Name in full

Name in full\_\_\_\_\_

Office seal

Membership No.\_\_\_\_\_

Contact No.

CAG Empanelment No. &amp; Year

Contact No.

## NATIONAL RURAL DRINKING WATER PROGRAMME

YEAR 20..-..

## AUDITOR'S OBSERVATIONS

NAME OF THE ORGANISATION RECEIVING GRANTS :

SL. NO.	ISSUES	OBSERVATIONS OF THE AUDITOR
1	Opening Balance & Closing Balance of the Receipts and Payments account tallies with that of Cash Book.	
2	Opening Balance adopted tallies with Closing Balance of the last year	
3	Whether grantee or other implementing agencies have diverted / intertransferred funds from one scheme to another Central Scheme or State funded Scheme during the period in contravention to the existing guidelines? If so details thereof.	
4	Are there any mis-utilisation / unrelated expenditure and mis-appropriation of funds by the grantee or other implementing agencies during the year? If so details thereof.	
5	There is only prescribed number of bank accounts for the scheme	
6	There does not exist any minus balance at any stage during the year.	
7	Where the Sanction Order of the Ministry specifies certain conditions at the time of release of funds, whether the same has been fulfilled.	
8	Scheme funds are being kept only in savings account	
9	Interest earned has been added to the scheme fund	
10	Whether interest money is being utilized strictly for the programme purposes as laid down in the existing guidelines	
11	State share, as per programme guidelines, for the year has been received during the year	
12	All receipts / refunds have been correctly accounted for and remitted in to the Bank account of the scheme	
13	Scheme funds are not being kept in the State Treasury	
14	Bank Reconciliation is being done regularly	
15	Name and address of the previous Auditor.	

Signature of Competent Authority

(Signature of Chartered Accountant with Seal)

Name in full

Name in full\_\_\_\_\_

Office seal

Membership No.\_\_\_\_\_

Contact No.

CAG Empanelment No. &amp; Year

Contact No.









Ministry of Drinking Water & Sanitation  
Government of India  
[www.mdws.gov.in](http://www.mdws.gov.in)

