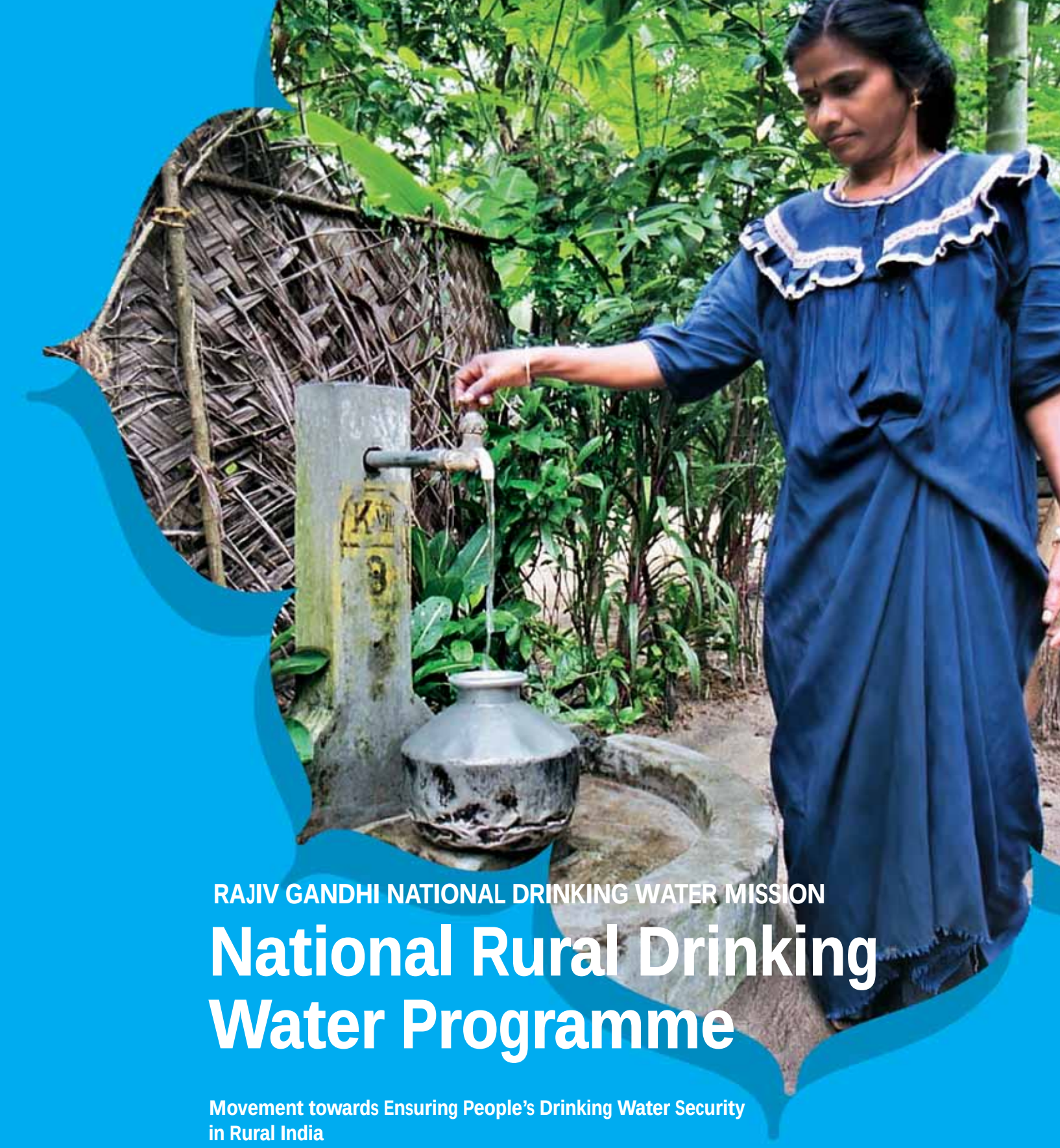

RAJIV GANDHI NATIONAL DRINKING WATER MISSION

National Rural Drinking Water Programme

Movement towards Ensuring People's Drinking Water Security in Rural India

Framework for Implementation

सत्यमेव जयते

Department of Drinking Water Supply
Ministry of Rural Development, Government of India

Rajiv Gandhi National Drinking Water Mission

National Rural Drinking Water Programme

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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.

सत्यमेव जयते

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Foreword

Historically, drinking water supply in the rural areas in India has been outside the government's sphere of influence. Community-managed open wells, private wells, ponds and small-scale irrigation reservoirs have often been the main traditional sources of rural drinking water. The Government of India's effective role in the rural drinking water supply sector started in 1972-73 with the launch of Accelerated Rural Water Supply Programme (ARWSP).

During the period 1972-1986, the major thrust of the ARWSP was to ensure provision of adequate drinking water supply to the rural community through the Public Health Engineering System. The second generation programme started with the launching of Technology Mission in 1986-87, renamed in 1991-92 as Rajiv Gandhi National Drinking Water Mission . Stress on water quality, appropriate technology intervention, human resource development support and other related activities were introduced in the Rural Water Supply sector. The third generation programme started in 1999-2000 when Sector Reform Projects evolved to involve community in planning, implementation and management of drinking water related schemes, later scaled up as Swajaldhara in 2002.

The Rural Water Supply (RWS) sector has now entered the fourth phase with major emphasis on ensuring sustainability of water availability in terms of potability, adequacy, convenience, affordability and equity while also adopting decentralized approach involving PRIs and community organizations. Adequate flexibility is afforded to the States/UTs to incorporate the principles of decentralized, demand driven, area specific strategy taking into account all aspects of the sustainability of the source, system, finance and management of the drinking water supply infrastructure. Adoption of appropriate technology, revival of traditional systems, conjunctive use of surface and ground water, conservation, rain water harvesting and recharging of drinking water sources have been emphasised in the new approach.

In the RWS sector sustainability of drinking water sources and systems are a major issue. As a consequence, ensuring availability of drinking water both in terms of adequacy and quality, on a sustainable basis, is the major challenge. Water quality is impacted due to ground water table falling due to excessive drawals. The levels of natural contaminants such as fluoride and arsenic and man-made chemical pollutants such as pesticides and insecticides are high in many areas. The biological contamination of large number of drinking water sources is a serious problem, primarily due to prevalent open defecation and insanitary conditions around the drinking water sources in rural India. With the basic sanitation programme being implemented in the villages, the prevalence of water borne diseases such as diarrhea, cholera, etc. is seen to have decreased, but the incidence is still relatively high in some parts of the country. Rural water supply

programme must be integrated with sanitation and coordinated with primary health care and other related programmes. The new guidelines seek to promote this by formulating a coordinating mechanism that must also ensure convergence of related programmes such as NRHM, ICDS, SSA and Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS).

From an institutional perspective, the modified policy recommends supporting the transfer of management and financial responsibility to the lowest level to the Panchayati Raj Institutions and, in particular the Village Water Supply and Sanitation Committees formed as Standing Committees of the Gram Panchayat. The transfer of responsibility would require provision of management and financial autonomy to the PRIs, VWSC, community organizations, as adequate and appropriate for their roles. This would enable the community to obtain a higher quality of services and minimize capital and maintenance cost, through competitive selection of service providers among existing public and private agencies and other organizations.

In order to safeguard the availability and quality of rural drinking water in India, this sector must have effective priority over other uses. Therefore, protection of ground water sources from excessive abstraction must be addressed, otherwise the costs of providing safe drinking water will continue to escalate. These issues can only be addressed with a multi-sectoral approach and a broad resource management perspective. Formulation of District Water Security Plans is an imperative. This will require development of institutional capabilities at the District Planning Board/ZP and GP/village level for preparing holistic plans for which provision must be made through allocation of funds as well as defining the institutional mechanism for capacity building and management of the RWS sector.

In rural India the spatial and social organization is such that the concept of a community can be interpreted synonymously with the concept of habitations. The rural habitation is often a unit of differentiation used to define a community based on caste and creed and also by members who by and large share common language and cultural characteristics. Often, people from the socially backward classes living in a cluster are not able to access water from the common water supply schemes located in the main village. To ensure availability of potable drinking water on sustainable basis in SC/ST dominant habitations, the States and UTs are required to commit adequate funds for these habitations.

Women generally manage domestic water needs. They are the pivot around whom the entire sustainability paradigm is evolved. It is, therefore, of critical importance that women are involved at all the stages of planning, implementation and management of rural water supply schemes. Moreover, women's associations can provide a strong framework for community participation.

The RWS norms and guidelines need to be flexible and broad-based for facilitating the community/VWSC for planning RWS projects based on the principle of demand responsive planning rather than adoption of universal norms and standards.

Based on these considerations the ARWSP has been modified as National Rural Drinking Water Programme (NRDWP) for the Eleventh Plan period. It is sincerely hoped that the new regime will help in providing adequate and potable drinking water on a sustainable basis to all persons living in the rural areas of our country.

(RAJWANT SANDHU)

Contents

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
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
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

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

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 increase economic productivity and improve public health, 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 and Objectives

3.1. Vision

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

3.2. Objectives

- To ensure permanent drinking water security in rural India.
- To ensure drinking water security through measures to improve/augment existing drinking water sources and conjunctive use of groundwater, surface-water and rain water harvesting based on village water budgeting and security plan prepared by the community/local government.
- Delivery of services by the system for its entire design period of quality of water in conformity with the prescribed standards at both the supply and consumption points.
- Issue of potability, reliability, sustainability, convenience, equity and consumers preference to be the guiding principles while planning for a community based water supply system

- To enable communities to monitor and maintain surveillance on their drinking water sources;
- To ensure that all schools and anganwadis have access to safe drinking water;
- To provide enabling environment for Panchayat Raj Institutions and local communities to manage their own drinking water sources and systems;
- To provide access to information through online reporting mechanism with information placed in public domain to bring in transparency, accountability and informed decision making;

4. Paradigm Shift

- It is observed that water supply schemes designed to provide 40 lpcd for the entire population in a habitation are often not providing educate drinking water to people living at the tail end of the schemes or throughout the year.
- As such there is a need to move ahead from the conventional norms of litres per capita per day (lpcd) norms to ensure drinking water security for all in the community.
- While initiating this move from lpcd to drinking water security at the State, District and Village levels, it is important to ensure that the basic minimum requirement at the household level for drinking and cooking needs and also for other household needs and cattle are met.
- Water supply for drinking and cooking should maintain quality as per the prescribed as per BIS standards and for other household and animal needs, the water should be of acceptable standard.
- To prevent contamination of drinking water in the conveyance system, it is advisable to adopt 24 x 7 supply where ever possible. The cost of water supply provision beyond the basic minimum need must 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) 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. 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.
- Health based target is based on the total exposure of an individual to contamination and moves from reliance on end product testing of water quality to risk assessment and risk management of water supplies commonly known as 'water safety plan'.
- 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.
- This therefore emphasizes the 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.
- Based on the above, the "Accelerated Rural Water Supply Programme" has been renamed as "National Rural Drinking Water Programme (NRDWP)".

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 cattle.
- 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 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 philosophy of importance of multiple 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.

7. Critical Issues

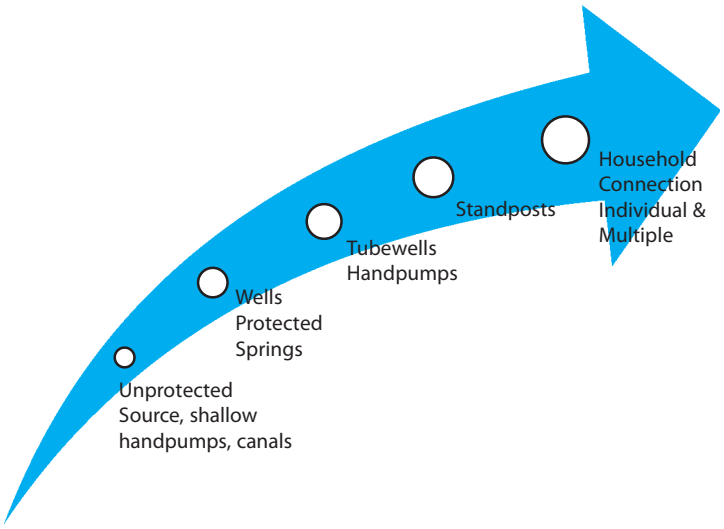
The major sector issues that need to be tackled during the Eleventh Plan period can be summarized as follows:

- Despite the impressive coverage of provision of safe drinking water facilities in the rural areas, there is considerable gap between the designed service level for which the infrastructure has been created and the service available at the household level.
- The issue of sustainability of source and system for ensuring supply of potable water are cited as the two major constraints in achieving the national goal of providing drinking water to all.
- Further, the programme has so far mainly been managed by the Government (except Swajaldhara projects), without active participation of the stakeholders. This has posed a hindrance to the development of more efficient and lower cost options for service delivery and also denied an opportunity to users to exercise their options as consumers to demand better service delivery.
- In the years to come, the rural water supply programme will face serious challenges by way of meeting the expanding needs of a fast growing population, increasing demand for higher service levels accompanied by rapid depletion of fresh water availability due to climate change.
- Factors which have contributed to the rapid deterioration of the water supply facilities resulting in non availability of the designed service are: over dependence on ground water and depletion of ground water levels which also increases the incidence of quality problems; sources going dry leading to systems becoming defunct due to competing demands of ground water from other sectors, poor recharge, large scale deforestation and lack of protection of catchment areas, heavy emphasis on creation of new infrastructure but poor attention to the maintenance of existing systems; poor ownership of water supply systems and sources by the rural community and poor operation and maintenance; neglect of traditional water sources, systems and management practices.

- Agriculture uses nearly four-fifths of the fresh water and various studies indicate that current farming practices waste at least 60 percent of this water. In water scarce areas foods/grain products that are sent to other parts of the country as commercial commodity takes away large quantity of water (about 3,000 litres of water required to grow 1 kg. of rice) from that area through these products, by what is known as 'virtual water' transfers. There is enormous scope for improvement by adopting community ground water monitoring, crop water budgeting and social regulation of water for ensuring fresh water availability for drinking on a sustainable basis in water scarce areas.
- In the context of resource constraints and competing demands on resources and inter se priorities, it is unlikely that the Government alone would be able to meet the challenge. The cost sharing arrangements should encourage involvement of the Central Government, State Government, PRIs, beneficiaries and other stakeholders. The PRIs need to own and manage the drinking water supply systems created.

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 level of potable drinking water supply in rural areas that has been adhered to since the inception of ARWSP is given at Annexure I.
- 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.
- 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.
- 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.

The fundamental basis on which drinking water security can be ensured is the decentralized approach through Panchayati Raj Institutions (PRIs) and community involvement.

9. Modified Programme

9.1. Modification

Household level drinking water security

- Starting with the Eleventh Plan, the endeavor 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% and 0-25% population coverage habitations and quality affected habitations in planning.
- 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.

Conjunctive use of water

- To move from over-dependence on 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 to 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. Village Water and Sanitation Committee (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 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,
- 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 Village Water and Sanitation Committee (VWSC) members is very essential for local planning and should be adequately provided for.

9.2. Components of the NRDWP

To meet the emerging challenges in the rural drinking water sector relating to availability, sustainability and quality, the components under the programme will be 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) DESERT DEVELOPMENT PROGRAMME (DDP) areas to tackle the extreme conditions of low rainfall and poor water availability,
v) Mitigate drinking water problems in rural areas in the wake of NATURAL CALAMITIES,
vi) OPERATION & MAINTENANCE (O&M) for expenditure on running, repair and replacement costs of drinking water supply projects, and
vii) SUPPORT activities.

(i) At the Central Level

- NRDWP (Coverage): 30% of the annual NRDWP funds will be allocated for Coverage, which will be allocated amongst States/UTs on the basis of prescribed inter-state 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.
- Operation and Maintenance: 10% NRDWP funds will be allocated to be used by the States/UTs on 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) – 20% 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. This component will be implemented in the form of decentralized, community-managed, demand-driven programme on broad Swajaldhara principles wherein innovations will be encouraged. Capital cost sharing by the community is left to the state to decide. The component will be funded fully by the Center (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. water quality monitoring & surveillance programme; IEC; water testing laboratories; HRD in the sector; training, conferences, seminar, R&D activities, CCDU, etc.
- NRDWP (Natural calamity): 5% of the NRDWP funds will be retained by DDWS and used for providing assistance to States/ UTs to mitigate drinking water problems in the rural areas in the wake of natural calamities.

(ii) At the State Level

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

- 10% for O&M with 50:50 cost sharing between Centre & State 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.
- 20% for sustainability and 5% for support activities as 100% grant in aid from Centre.
- 45% for coverage and 20% for water quality on 50:50 cost sharing 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.
- Funds released to the State for the year in wake of natural calamity, if any, as 100% grant in aid from Centre.

9.3. Flexible Policy

- There will be incentives for States to decentralize and hand over water supply systems for management, operation and maintenance to Gram Panchayat. Since there is a wide variation among States in the number of habitations having water quality problems and left over uncovered habitations, funds under different components of NRDWP, viz. Coverage and Water Quality will be allocated 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 65% of the funds available at State level can be used for tackling coverage or water quality.
- The allocation for Sustainability component is limited to 20% on a 100% grant–in aid basis. States that propose to utilize less than 20% against the

Sustainability component will have to furnish justification to DDWS for decision in the matter.

- 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. Basic Swajaldhara principles of community and PRI based planning, implementation and management of the schemes are to be adopted. Under this component preparation of Village Water Security Plan will be necessary. 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" issued by the Department of Drinking Water Supply, Government of India may be referred for planning, design and implementation of such projects .
- There are many fields where technical support would be required by the States to achieve the long term goal of the sector. Thus, support for water quality monitoring & surveillance, water testing laboratory, information, education and communication, human resource development, engaging State Technical Agency for preparation of projects, technical scrutiny and evaluation of rural water supply schemes can be accessed under NRDWP. 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 central online monitoring system (IMIS) and such other activities will also be supported. Expenditure will be met within the 5% Support Fund assigned to the States.

9.4. Criteria for Allocation of Funds under NRDWP

Criteria for allocation of funds to the States under the NRDWP w.e.f. 25.2.2010 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

S. No.	Criteria	Weightage (in %)
i.)	Rural population	40
ii)	Rural SC and ST population	10
ii)	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	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%.*

considered. The Desert Development Programme was in operation in 131 blocks of 21 districts in 5 States up to 1994-95. On the recommendations of the Hanumantha Rao Committee, 32 new blocks were brought within the purview of the programme and 64 blocks were transferred from DPAP. Consequently, coverage of the programme was extended to 227 blocks of the country w.e.f. 1.4.1995. With the reorganization of districts and blocks, the programme is under implementation in 235 blocks of 40 districts in 7 States. The States Government Agency 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 where DDP is under implementation 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.

9.5. Incentive Funds

- In the criteria for allocation of funds to States/UTs, 10% weightage has been given for "rural population managing rural drinking water supply schemes".
- 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 Department 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.
- From this Incentive fund, States/UTs may take up innovative projects to further the ongoing decentralization process.

9.6. O&M Fund

- The 13th Central Finance Commission has recommended separate grants to PRIs, which could be used to partly meet the operation and maintenance expenditure incurred by the PRIs on ensuring potable drinking water supply.

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**

- 10% NRDWP fund will be allocated among 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. It would be desirable to deposit such O&M contributions in a corpus fund linked to the project operated by PRI itself.
- 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 endeavor 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 release by DDWS is properly utilized.

9.7. 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 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 / community buildings) are to be provided with drinking water facilities by end 2010-11.
- 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, in addition to the work of covering uncovered habitations.
- 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).
- States would be required to fix targets for coverage of rural schools and report achievements online to the DDWS on a monthly basis.
- This activity is to be carried out in coordination with SSA, ICDS, NRHM and Department of Social Welfare.

9.8. 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, religious institutions, market places, mela ground, cremation ground etc,.
- Provision of drinking water facilities will also address the needs of floating population by installing street stand posts at convenient locations.

9.9. Earmarking of Funds for SCs and STs/SCP and TSP Component

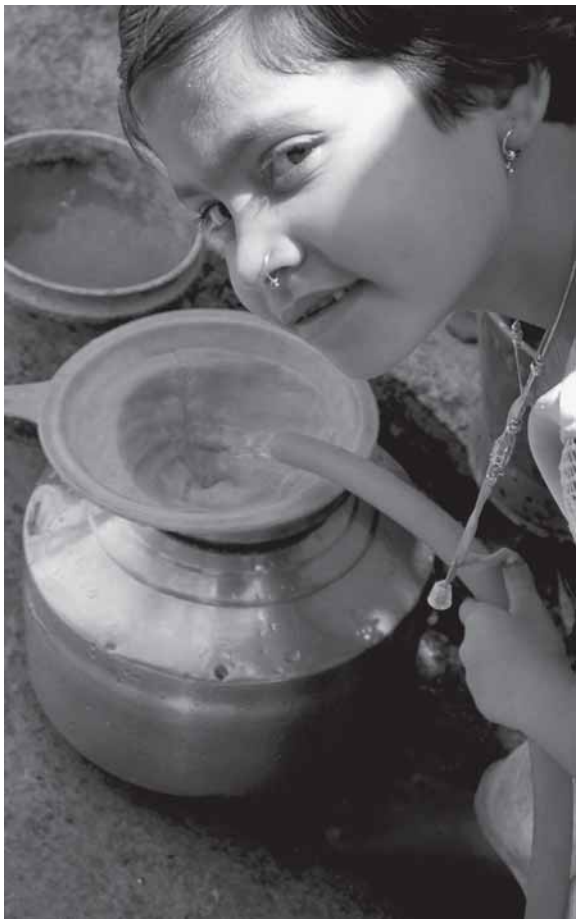
- To accelerate the assured availability of potable drinking water on a sustainable basis in SC and ST dominant habitations, the States/UTs are required to earmark at least 25% of the NRDWP funds for drinking water supply to the SC dominated habitations and a minimum of 10% for the ST dominated habitations. Habitations in which more than 40% of the population belongs to SCs are considered as SC dominated and with more than 40% STs are considered as ST dominated.
- States that have achieved full coverage of

SC/ ST households with adequate safe drinking water as per the State norms may incur lower level of expenditure on SC/ST but not in any case below the percentage of SC and ST population in the State.

- 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 may separately monitor the status of assured availability of potable drinking water in SC/ST habitations.

9.10. Gender Empowerment and Budgeting

- Women generally manage domestic water, and an essential ingredient of community participation is to improve women's involvement in the democratic decision-making process.
- Since women are the principal beneficiaries of this programme and are the pivot around whom sustainability revolves, it is of critical importance that women are involved at all the stages of planning, implementation and management of rural water supply schemes.
- Women's associations could provide a strong framework for community participation.
- Handpump mistries under various skill development programmes and other training schemes should also include women of the local areas/habitations as they can take better care of the operation and maintenance of the handpumps than others.
- There should be women caretakers for handpumps in the habitations.
- Certificate about satisfactory completion of the schemes may be obtained from women groups in the habitations.
- Women, especially those belonging to SCs,



STs and OBCs, should constitute at least 50% of the members of the Village Water and Sanitation Committees (VWSC).

- VWSC is the Standing Committee of the Gram Panchayat except for 6th Schedule Areas. Provision for participation of representatives of SCs, STs and other backward classes in VWSC should be a priority.

10. Support Activities

NRDWP (Support): 5% of NRDWP funds will 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 are likely to

continue for the 12th Five Year Plan also. 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) Providing support for awareness creation and training activities taken up by the Communication and Capacity Development Units (CCDU) under the WSSO;
ii) Setting up district and sub divisional water quality testing labs and supply of field test kits and training to grass root level workers for simple water quality tests;
iii) 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.

Activities to be under taken by the States under this fund are mentioned below:

10.1. 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 Department 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, Department of Drinking Water Supply, Ministry of Rural Development, 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 Water Testing Laboratories at the Sub- Division 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 Centers. 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. Fund provided for procurement of FTKs under National Rural Water Quality Monitoring & Surveillance Programme launched in February 2005 should be fully utilized.
- IEC and HRD for WQM&S are to be taken up as part of the 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.

– Monitoring is to be done by entering the test results of all sources tested by the designated labs on the IMIS of DDWS. The habitation and household data must be collected by two village level members (i) 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.

10.2. Communication and Capacity Development

The HRD and IEC programmes under the rural water supply programme have been merged in 2004-05 and GoI provides 100% grant-in aid to establish Communication and Capacity Development Unit (CCDU) in all States/UTs. Before taking up piped water supply projects in a village, 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/VWSC with the objective of enabling them to take up planning, implementation and operation and maintenance activities related to rural water supply systems. NRDWP (Support) funds will be provided for activities under the CCDU, as per the guidelines given in Annexure IV.

10.3. 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 sub-division 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 IV.

10.4. 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, Department of Drinking Water Supply, Ministry of Rural Development, Government of India. The functions of the Research & Development Advisory Committee (RDAC) on rural drinking water and sanitation sector will be, interalia:

  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 Department to prepare specialized and emerging science and technology related documents of current interest.

vi) Advise the Department 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, Department of Drinking Water Supply, Ministry of Rural Development, 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 Department 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 DDWS.
- Guideline indicating the thrust areas of R&D is at Annexure VI.

10.5. 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 Department and immediate corrective action should be initiated as a follow up to improve the quality of programme implementation.

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 normal NRDWP 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 or through hard copies from the executing agencies through prescribed reports and returns (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. External Support Agencies

Various external support agencies like World Bank, Japan Bank for International Cooperation, 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 institutionalizing community-based demand driven Rural Water Supply Programme with cost sharing by the communities, gradually replacing the current government supply driven centrally monitored non- participating programme.
- 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.

The Department of Drinking Water Supply 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 Department of Drinking Water Supply 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 DDWS 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 (GoI)
- Department of Space Technology (GoI)
- 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.

12.3. Role of National Informatics Centre

National Informatics Centre (NIC), at New Delhi would act as technical consultant for the DDWS 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 states 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 6th 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 composition and functions of DWSM are indicated at Annexure VII.

12.6. Village/Gram Panchayat Level

A Village Water and Sanitation Committee (VWSC) is to be set up as a standing 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 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 on Water and Sanitation of the Gram Panchayat and should be an integral part of the Village Panchayat. The composition and functions of the VWSCs can be regulated by a set of by-laws under the State Panchayati Raj Act.

12.7. 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.
- 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.

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. 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 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. 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 and funds from different sources/rural water supply programmes will be dovetailed and NRDWP funds will also be utilized.
- The funds available under NRDWP (Sustainability) – Swajaldhara component will be used for funding of Village Water Security Action Plans for in-village infrastructure.
- Other NRDWP funds viz. coverage, water quality, DDP Areas, etc. can be used for bulk water transfer, treatment plants, distribution network in addition to in-village water supply infrastructure and augmentation of drinking water sources.

14. Comprehensive Water Security Action Plan (CWSAP)

The main objective of the Comprehensive Water Security 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 rolling 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 Comprehensive Water Security Action Plans and which will inter- alia include broad directions/thrust and tangible targets planned to be achieved in the financial year.
- 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 CWSAP will have to be prepared by each State.
- Each State will have to submit to DDWS the Annual CWSAP by Feb every year, through online IMIS.
- After consultation with each State during Feb and March of the current financial year funds are to be released in April to States for the next financial year.
- The ACWSAP will be prepared in a participatory manner and after carrying out detailed SWOT analysis.
- Under the ACWSAP, detailing will be done based on the Memorandum of Understanding (MoU) signed between the DDWS and the State.
- The progress made and achievements in the previous year will be basis of the ACWSAP 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 CWSAP, 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 Action Plans should indicate the following aspects also:

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 dominated 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 dominated habitations in planning. The names of habitations targeted should be marked on line;
b) The projects 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; and,
d) 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.
e) Plan for coverage of schools and anganwadis with water supply
f) Plan for Community involvement, IEC and other Support activities
g) Plan for Water quality monitoring, training, sample testing etc.
h) Detail of the Village, District and State Level monitoring and evaluation

mechanism with special emphasis on beneficiaries satisfaction of the service;

i) Plan for clean environment around drinking water sources including hand pumps, proper 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 11th 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 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 2001. The National population growth factor indicated in Census 2001 may be adopted to arrive at the present population.

15.6. Detail Project Report (DPR) of water supply schemes/projects are to be prepared by the State Rural Water Supply Department for which services of the State Technical Agency (STA) may be sought. While commencing with 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.

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 proposal to see that they are in accordance with the Guidelines and the proposals of the Members of Parliament have been given full consideration.

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. 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 DDWS.

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 DDWS Funds. The concerned branch will maintain Internet connectivity and enter the data into the relevant module of the Online Integrated Management Information System (IMIS).

16.3 The SWSM will communicate to the DDWS, Ministry of Rural Development the details of the Bank branch IFSC code and the Account numbers. The DDWS, Ministry of Rural Development shall release the programme funds and support funds respectively into the programme and support accounts.

16.4 The SWSM shall credit the Support Account 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. Such funds shall be credited to the Support Account of the SWSM.

16.5 The State Government shall match the Programme Account with funds as per the funding pattern indicated in para 9.3 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.

16.6 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.

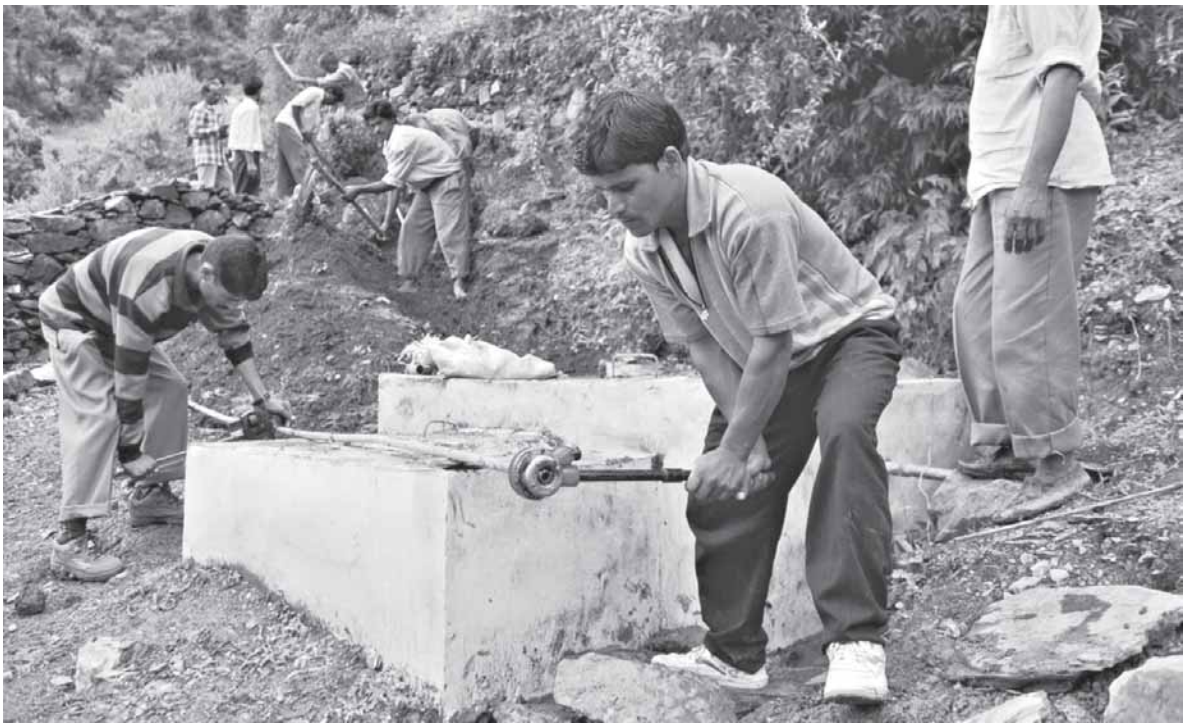
ii) NRDW programme fund needs to be matched by the State matching fund as per the pattern of funding indicated in para 9.3 of the guidelines and

iii) The Bank will render monthly account, in respect of NRDWP Funds, to the PHED/Board, the SWSM and whenever requested, to the DDWS.

16.7 A tripartite Memorandum of Understanding will be entered into between the Bank, SWSM and the DDWS 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 DDWS, regarding the operation of the Accounts.

16.8 The DDWS 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 DDWS, 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 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 DDWS, Ministry of Rural Development 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.

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 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.
- 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 X) with progress reports generated from the IMIS and returns; progress reports that are not generated from IMIS will not be accepted.
  b) 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).
  c) Receipt of certificate of actual expenditure under the State sector and the NRDWP from the Accountant General upto the year preceding the previous financial year; However, if report from Account General 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. In case, in the AG's report, some discrepancies/deficiencies are reported, the same will be adjusted in the subsequent releases.
  d) Receipt of Utilization Certificate generated from the online IMIS (in the prescribed Proforma as at Annexure XI) 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.
  e) Certificate that the unfinished works are given priority for completion.
  f) Certificate that all the schemes approved by the State level Scheme Sanctioning Committee six months ago have been taken up for implementation.
  g) Proposal for release of the second installment of funds under the Programme Fund, complete in all respects as indicated above, should reach to the RGNDWM 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 total allocated amount
Up to December	Nil
January	10%
February	20%
March	30%

Any restoration of cut imposed on account of late submission of proposal will be made by DDWS, in consultation with its finance wing, on a case to case basis. The primary reason for considering such restoration would be if delay was due to reasons not under the control of the implementing agency.

  h) 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 generated from the IMIS. Only those activities permissible under the guidelines indicated under support activities will be permitted.
  i) The expenditure on O&M should not exceed 10% of the total funds released in the previous year under NRDWP.

j) 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) In other words, 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) However, if any amount has been released in the month of March and or amount could not be transferred to the State/UT in the financial year, the same will not be accounted as carry forward amount.
r) While releasing the second installment, the excess amount over and above the prescribed limit, will be deducted. However, if the State/UT has utilized more than 75% of the total available fund 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 and not through the State Governments. 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 DDWS.
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.

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.

18.2 In addition to the Audit by the Chartered Accountant, the works under this Programme would 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.

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 2001 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 NRWQM&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.

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 DDWS.
- The Integrated Information Management 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 DDWS 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 DDWS and it shall not be modified at any level in the States; any requirement or suggestion for change shall be intimated to the DDWS.
- 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.
- The District Vigilance and Monitoring Committee set up by the Ministry 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 26th

August, 2009 issued by the Ministry of Rural Development, Government of India 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 (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 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:
  - Access and usage
  - Quality, quantity and reliability
  - Responsiveness of the service providers
  - User's satisfaction
- Based on these parameters including any additional relevant local parameters, the State Government may start a bench marking 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 to 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/VWSC should be empowered/ authorized to collect user charge for O&M as per the recommendation of 12th Finance Commission.

The resource management objective of ensuring adequate quantity and quality of water resources for domestic needs must also be addressed.

Exit Policy

21. It is expected that the objectives of establishing an enabling environment to attain source, system, institutional and financial sustainability will be met during the Eleventh Plan period and there will be an exit policy in the Twelfth Plan period towards improved maintenance and enhanced management of water supply systems by the PRIs in terms of quality and quantity. However the programme will have to continue to support the movement of States/UTs up the Water Ladder, from the basic minimum need to higher level of supply and upgrade from supply through spot sources and street stand posts to house connections. The other aspects of the Exit strategy are as follows:

- The resource management objective of ensuring adequate quantity and quality of water resources for domestic needs must also be addressed.
- As a self-regulatory mechanism, identify criteria and indicators and setting benchmarks of goals/achievements in the form of Memorandum of Understanding (MoU) under which the recipient State or its agencies are evaluated, and which will thereafter, form the basis of flow of funds from the Government of India.
- Gradually, over a period of time, in all the districts of all the States/UTs community participation in rural water supply programme will be institutionalized.
- The DDWS may provide bulk grants to States to fund PRIs for successful management, operation, maintenance, augmentation, replacement of water supply systems and sources.
- By the end of the 11th Plan, States will strive to strengthen the Gram Panchayats/ VWSCs/Pani Samiti to take over and shoulder full responsibility of in-village water supply systems.

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

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 is as follows:

- 40 litres per capita per day (lpcd) for humans to meet the following requirements based on basic minimum need as defined under the ARWSP guideline.

Purpose	Quantity (lpcd)
Drinking	3
Cooking	5
Bathing	15
Washing utensils and house	7
Ablution	10
Total	40

- The above norms may to 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.
- However it is suggested that in areas having acute water quality problems and the cost of alternate safe drinking water will entail huge capital cost, 10 lpcd of potable water may be supplied and the balance domestic requirement can be met from other nearby source(s).
- For purposes of comparability coverage means provision within a distance of 500 mts from the household or 30 minutes of time taken for fetching water.

B. Norms for Coverage

While planning for schemes in any year, priority is to be given to habitations where none (0%) or part 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 500 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".

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 concreteis 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.

S. N.	Parameters	Unit	BIS (IS:10500)-2004		WHO Desirable limits
			Desirable Limits	Max. Permissible Limits	
1	pH	——-	6.5 TO 8.5	6.5 TO 8.5	6.5-9.2
2	Arsenic	mg/L	0.05	0.05	0.01
3	Fluoride	Mg/L	1.0	1.5	1.5
4	E-Coli	Number/ 100 ml.	Absent	Absent	Absent
5	TDS	mg/L	500	2000	1,200
6	Nitrate	mg/L	45	45	50
8.	Iron	mg/L	0.30	1.0	0.30
9	Calcium (as Ca)	mg/L	75	200	No specification
10	Magnesium (as Mg)	mg/L	30	100	No specification
11	Sulphate	mg/L	200	400	500
12	Alkalinity	mg/L	200	600	No specification
13	Turbidity	NTU	5	10	10

Annexure II

Guideline for Implementation of Sustainability – Swajaldhara Project

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.

The paradigm shift in the new framework is to move towards achieving universal access to rural population for having safe and sustainable drinking water supply rather than a mere coverage of habitations, the latter not necessarily speaking about equity and vulnerability issues. Therefore the aim is to work at achieving household level drinking water security, which shall obviously ensure universal access.

History stands witness to man's use of varied forms of technology and science, ranging from the simplest to the most complicated, for storing and extracting water. 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 20% allocation for Sustainability-Swajaldhara 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, dark and grey area as specified by CGWB and any other area the State Government has identified as difficult and water stress area. Basic Swajaldhara principles of community and PRI based planning, implementation; management of the schemes is to be adopted. For operation and management of schemes the Central Finance Commission funds are to be utilized. Under this component preparation of village water security plan is mandatory.

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 on "Mobilising Technology for Sustainability", "Bringing Sustainability of Drinking Water System" and "Convergence of sustainability projects" (web site: http://ddws.gov.in under icon Publication 2007-08) issued by The Department of Drinking Water Supply, 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. Conditionality (Non-negotiable principles)

- Shift focus from dependence on single source to multiple sources of drinking water
- Water demand and budgeting for ensuring household level drinking water security
- Reject management issues to be addressed properly so that the contaminants do not re-enter into water, environment or food.

6. 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
- 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 individual houses, community structures like schools, anganwadis, GP office, etc.

From the above list the following works may be taken up under Sustainability component of NRDWP and the balance works may be taken up under 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 t Programme (Dept of Land Resources, Ministry of Rural Development, GoI), etc.

- Roof water harvesting for individual houses, community structures like schools, anganwadis, GP office, hostels, health centres, hospitals, etc.
- Ooranis, Orans or scientifically developed village ponds with in situ filtration and collection system
- Check dams
- Material component of Percolation tanks
- Sub-surface dyke
- Point source recharging systems (defunct borewells and abandoned dugwells)
- Infiltration well with Collector well
- Infiltration gallery
- Hydro-fracturing

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.

7. 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 should 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 house 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.

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.

The indiscriminate over-drawal 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. The fluoride contamination affects more than 200 districts in 17 states and excess arsenic is extensive in 8 districts of West Bengal and other Eastern States. New evidence suggests that the whole Ganga-Meghna-Brahmaputra belt is under threat of arsenic contamination. In India current estimates place 3-4 million people at risk from arsenic poisoning and 90 million people exposed to fluoride contamination. 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.

Water is defined as safe if it is free from biological contamination (guinea worm, cholera, typhoid etc.) and within permissible limits of chemical contamination (arsenic < 0.05 mg/l, fluoride < 1.5 mg/l, brackishness < 2000 mg/l, iron < 1 mg/l , nitrate 45 mg/l etc.) as per IS-10500 standard of BIS (refer Annexure I).

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 existing 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 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 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 village' to 'ensuring water supply security at the house hold level'.
- The national goal is to provide every rural person with adequate water for drinking, cooking and other domestic basic needs on a sustainable basis. This basic requirement should meet certain minimum water quality standards and be available at all times, in all situations and be readily and conveniently accessible.
- While initiating this move from lpcd to drinking water security at the State, District and Village levels, it is important to ensure that the basic minimum requirement at the household level for drinking and cooking need and also the need for cattle and other similar household needs is met.
- Water supply for drinking and cooking should maintain quality as per the BIS standards and for other household and animal needs, the water should be of acceptable standard.

- To ensure this it is equally important to maintain potability, reliability of drinking water quality standards both at the production (water treatment plant) as well as at the consumption points (house hold level).
- Focus on 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. As such the programme needs to have strong institutional linkages at the village and facility levels (Sub Centres and Primary Health Centres) of National Rural Health Mission (NRHM)
- The water supply should conform to the standards of quality set by the relevant bodies. For ensuring quality of water, Bureau of Indian Standard (BIS) IS: 10500 were formulated in 1990. World Health Organization has also modified Guidelines for Drinking Water Quality (2004) and Guidelines for safe use of wastewater and grey water (2006). Both the guidelines advocated use of health based target setting approach.
- Health based target is based on the total exposure of an individual to pollution and moves from reliance on end product testing of water quality to risk assessment and risk management of water supplies commonly known as 'water safety plan'.
- Water safety plan links the identification of a water quality problem with 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 supply scheme from the catchment to the consumer and from the tap to the toilet.
- 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-Division 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

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 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 VWSC member selected should work in close coordination with ASHA.
– Broad role and responsibilities of VWSC/ ASHA members are indicated below:
– The Jal Surakshak can also 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 (Support) 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

Sl. No.	Role of VWSC member	Role of ASHA (NRHM)
i	Ascertain drinking water adequacy at the household level including cattle 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 proposed Sub-division Water Testing Laboratory for testing both chemical and biological parameters	Take corrective measures along with VWSC member (1) 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

contamination. It has been envisaged that a blanket test of bacteriological contamination of all sources will be conducted for MPN counts in all the Sub-divisional Laboratories.
- Consolidated at the District level to be entered on line in DDWS 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 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 Department of Drinking Water Supply (DDWS) to monitor the entire programme.
- 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 (Support) for setting up Water Testing Laboratories at the Sub-Division level.
- Take up State and Region specific IEC activities involving PRIs, Co-operatives, Women Groups, SHGs, and NGOs by 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 of 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-DDWS 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 VWSC/GP.

- IEC and awareness generation by village level workers from VWSC/GP using Field Testing Kits.
- The State level laboratories would also be involved in testing concentrations of rare elements and extend all necessary help in providing water quality testing reports to the State Governments during periods of natural calamity and disasters.

6. Funding

- Under the programme, 100% funding would be provided for strengthening of district level laboratories, setting up of sub-divisional laboratories, data reporting cost, stationery cost, , water testing, documentation, refill costs of FTKs and data entry costs to the States for strengthening water quality monitoring facilities as per approved norms.
- 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.
- 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.
- NRDWP will not fund for O&M of the laboratories, cost of disinfectants, minor remedial expenses, annuity and mobility. These costs should be covered by the funds available from NHRM, Central Finance Commission, PRI and State budget.
- 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 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 DWSM/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/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, bock, 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. DWSM should constitute a team of experts in the district who should review the implementation in different block 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-DDWS 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.

Annexure IV

Communication and Capacity Development Unit (CCDU)

1. Background

In demand driven and community based programmes, effective and creative communication plays a crucial role in their success. Both NRDWP and TSC 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. Therefore Communication and Capacity Development (CCDU) Unit has been designed and 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 two CCDUs may be formed and both must report to the WSSO and SWSM and access funds from allocation for NRDWP (Support).

2. Objectives

The broad objectives of CCDU are to:

- 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 rural water scheme and total sanitation campaign
- 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. 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. CCDU shall undertake the following activities –

- Conduct Training Needs Assessment for Water and Sanitation
- Prepare Capacity Building Plan for PRI members, VWSC members and engineering/technical staff
- Take up in-house training.
- Prepare Annual IEC plan for Water and Sanitation sectors.
- Create awareness amongst the community and stakeholders.

- Identify Key Resource Centres at State level.
- Make Payment to the State Technical Agency and for Consultancy services.

4. Functions

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

- HRD and IEC inputs to the National Rural Drinking Water Programme (NRDWP) and Total Sanitation Campaign (TSC) 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 and Total Sanitation Campaign IEC funds (in case of Department dealing with both TSC and RWS) need to be transferred to Water and Sanitation Support Organization (WSSO) under State Water Sanitation Mission w.e.f. 1st April 2008.

The CCDU shall look after the IEC and HRD activities related to:

- Water and Sanitation issues.
- Water Quality Monitoring & Surveillance.
- MIS/Computerization programme.
- Sustainability – Swajaldhara.
- Monitoring and Evaluation of performance under NRDWP and TSC.
- Research and Development activities.

Annual Action Plan of IEC and HRD 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 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

6. Establishment Cost

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

7. Structure of CCDU

The structure of 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 and HRD activities from planning to implementation for various functionaries at different levels should be entered in the online IMIS of the Department of Drinking Water Supply on monthly basis.

The material developed on both IEC and HRD needs to be shared with the Department 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 73rd 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 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.
- **Accountabil**ity & 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 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
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

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, 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 at State Level

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. The following suggested activities may be undertaken at State level:

I. Mass Media

- "Audio-Visual spots" shown on TV
- "Audio Spots/Jingles" broadcast through radio.
- Street theatre to promote desirable behavior through kala jathas, street plays, folk songs etc.
- Talk shows, panel discussions and expert lectures on related issues on national and regional channels

II. Print Media

- Advertising in regional papers and magazines
- Development of concept for advertorials and daily updates
- Coverage of events, success stories in regional newspapers
- Development and supply of brochures, pamphlets, leaflets, flip charts, etc. highlighting the initiatives taken up by Government, schemes, technologies, sources available at all levels,
- FAQs booklet

III. Outdoor Publicity

- Development and supply of hoardings and banners for panchayats offices, schools, anganwadis, health centers, railway stations, bus stops, post offices, District Administration Offices, on buses, bus stations, health sub-centre, Primary Health Centres, Post office and PRI offices, chemist shops, banks, etc.

IV. Activities at School and Anganwadi level with involvement of students

- Development of School Kit that includes behaviour posters, leaflet for children and parents, leaflet for teachers and hand-washing poster;
- Organizing State level essay and elocution competitions on health and hygiene among school children;
- Plan for awareness generation through rallies, padyatras, etc.; and
- Involvement of NSS, NSC, Scouts and Nehru Yuvak Kendras (NYKs)

VI. Non-Conventional media

- Using mobile messages (SMS);
- Message printed on inside and back cover pages of free textbooks and notebook.

VII. Other Relevant Activities

- Development of communication kit comprising of all IEC materials like posters, hoardings, banner, slogans, SMS messages, informative booklet, leaflets, audio-visual CDs, documentary films etc.;
- Celebrating National and International days such as World Water day (March 22nd), World Toilet day (November 19th), Hand Washing day (15th October or as modified), World Women's day (March 8th), Environment day (June 5th), etc.;
- Participating in Republic Day parade through tableau or felicitation of PRIs, schools, motivators, students and other stakeholders for best performance in various schemes;
- Production of documentary on success stories and innovative practices and showcasing it;
- Awarding schools with best health and hygiene condition at State, district and block level;
- Partnership with other line department programmes such as NRHM, SSA, ICDS, etc.;
- Exposure visits at state, districts and panchayat level;
- Celebrity endorsement : using celebrity for awareness generation on health and hygiene;

- Web based publicity; and
- Impact assessment through third party agency to assess the effectiveness of the communication activities in terms of quality and quantity

VIII. Capacity building and training

- Training of Trainers for local artists at state level

IX. Advocacy and Networking

- Media Communication workshop with eminent journalists from print & electronic media;
- Sensitization workshops for journalists from print and electronic media; and
- Sensitization workshops with Radio jockeys and programme production managers from Government Radio Channels.

IEC activities at the District Level

I. Mass Media

- Telecast of "Audio-Visual spots" through local cable networks;
- Broadcast of "Audio Spots/ Jingles" through local FM channels;
- Awareness generation through local cable operators.

II. Print Media

- Distribution of IEC materials to schools, anganwadi, panchayats pradhans, students, teachers, health workers, key opinion leaders, religious group members, individual beneficiaries, etc.
- Availability of above materials at relevant community congregation points viz. District Administration Office, PRI-offices, Post offices, schools, anganwadis, health centers, commercial/ market places, etc.

III. Inter-Personal communication

- Use of SARAR and PRA techniques to involve the community and PRIs in identifying the problem areas and intervention needed;
- Conducting focus group discussions and community level and door to door; and
- Health-walk especially for women and children.

IV. Outdoor Publicity

- Hoardings and banners at panchayats offices, schools, anganwadi, health centers, railway stations, bus stops, post offices, District Administration Office, Health sub-centres, Primary Health Centres, PRI offices, chemists shops, bank, etc.
- Wall painting at village entrance, schools mandies, Panchayat offices, schools, anganwadis, health centers, railway stations, bus stops, post offices, District Administration Office, Health sub-centres, Primary Health Centres, PRI offices, chemists shops, banks, etc.
- Panel/ messages inside and outside public transport buses.

V. Activities at School and Anganwadi level with involvement of students

- Distribution of School Kits that includes behaviour posters, leaflet for children and parents, leaflet for teachers and hand-washing poster;
- Using children as communication agents to spread the awareness about health and hygiene;
- Poster making, wall painting, slogan writing by students;

- Organizing various competitions like essay completion on health and hygiene among school children;
- Awareness generation through rallies, pad yatras, etc.;
- Involvement of NSS, NSC, Scout and NYKs;
- Certificate for good habit for maintaining personal and environmental hygiene, to students by schools on periodical basis; and
- Messages on book covers for school children.

VI. Non-Conventional media

- Use of video vans, street plays, folk group, sport events, etc.
- Interactive programmes at melas, mandis and haats; and
- Awareness through pad yatras, rallies, slogans, etc.

VII. Other Relevant Activities

- Production of documentary on success stories and innovative practices and showcasing it;
- Awarding schools with best health and hygiene condition at district and block level;
- Partnership with other line department programmes such as polio eradication campaign, immunization programme, etc.;
- Exposure visits at state, districts and panchayat level to promote exchange of ideas and knowledge;
- Use of Interactive tools like folklore based programmes, competitions, interactive games; and
- Workshop for local artist at district level.

IEC Activities at the Block level

I. Mass Media

- Broadcast of "Audio Spots/ Jingles" through Community Radio.

II. Inter-Personal communication

- Use of SARAR and PRA techniques to involve the community and PRIs in identifying the problem areas and interventions needed;
- Conducting focus group discussion and door-to-door interactions;
- Health walk especially for women and children; and
- Calling women baithak (meeting) to discuss issues on health, hygiene, water, sanitation facilities, etc.

III. Outdoor Publicity

- Hoardings and banners at panchayats offices, schools, anganwadi, health centers, railway stations, bus stops, post offices, block offices, health sub-centres, Primary Health Centres, PRI offices, chemist's shops, banks, etc.;
- Wall paintings at village entrance, schools, mandies, Panchayats offices, schools, anganwadis, health centers, railway stations, bus stops/ stations, post offices, health sub-centres, Primary Health Centres, PRI offices, chemist's shops, banks, etc. and
- Panel/ message through public transport buses inside and outside.

VI. Activities at School and Anganwadi level with involvement of students

- Using children as communication agent to spread the awareness about health and hygiene;
- Distributing daily activity chart on good and bad habits to student to monitor at least 5 houses on weekly basis;
- Shramdan in schools on weekly bases with supervision by teacher and principal. Shramdan activities like cleaning of water sources, water collection utensil, cleaning school campus, cleaning of sanitation facilities and maintenance of personal hygiene; and
- Name plate in schools displaying names of students who are member of Swachatta club. Formation of Swachatta club by involving students as in charge of the club; and
- Poster making, wall painting, slogan writing by students.

VII. Other Relevant Activities

- Exposure visit at state, districts and panchayat level;
- Exhibitions at block level; and
- Use of interactive tools viz. folklore-based programmes, competitions, interactive games, etc.

IEC Activities at the Gram Panchayat / village level

I. Inter-Community communication

- Use of community led approaches to trigger behavioural change in safe water use, water conservation and sanitation has been found to be the most effective IEC activity.

II. Inter-Personal communication

- Use of SARAR and PRA techniques to involve the community and PRIs in identifying the underlying problem areas and intervention needed;
- Conducting focus group discussions and door-to-door interaction;
- Health walk especially for women and children; and
- Calling women's baithak (meeting) to discuss issues on health, hygiene, water, sanitation facilities, etc.

III. Outdoor Publicity

- Public announcement through loud speakers at village level by GPs;
- Tin plates on bus panels, cycle stands auto rickshaw stands, gram panchayats, schools, anganwadi centers etc.;
- Wall tiling at bathing ghats, common well, village squares (congregation point) etc.;
- Stickers on hand pumps located in public places; and
- Stenciling in the village roads and other congregation points.

IV. Non-Conventional media

- Audio announcement at Azan, temples, dhabas, paanshops, etc.;
- Publicity in village haats, melas, religious gathering, festival ceremony, sports competitions etc.;
- Interactive programme at melas, mandis, haats, etc.;
- Use of interactive tools viz. folklore-based programmes, competitions, interactive games, etc.;
- Announcement at public gathering e.g. bus stand, railway platform, etc.
- Focus group meeting with SHGs.

Implementation Plan

11. A proper plan based on the above need to be developed well before the start of the financial year 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 Village Water and Sanitation Committee (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.

Annexure IV-B

Strategy for Implementation of HRD Campaign

The State CCDU needs to hold Training Needs Assessment workshops 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 CCDU, in co-ordination with STA and other State and national Resource Centres, needs to develop "Training modules" for different stakeholders on different related subjects.
Every year a Capacity Building Plan has to be prepared for training of the following stakeholders at different levels:

Village level

- Gram Panchayat and Village Water Sanitation Committee members, , 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, 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 Committee members, Development Officers, Other related department officers

State level

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

Annexure IV-C

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

1. Background

The aim of the Government is to ensure permanent drinking water security to all households in rural India, considering the guiding principles of potability, reliability, sustainability, convenience, equity and consumer's preference, while planning for community-based drinking water supply schemes. In this regard, measures to improve existing drinking water sources through conjunctive use of groundwater, surface-water and rainwater harvesting will be adopted based on the village water security plan prepared by the community.

Technical expertise is required at all levels including the Panchayats to achieve the goal. 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 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 suggestive requirements for empanelment of these experts by the 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 in 3 copies will have to be prepared by the technical expert, of which one copy is to be submitted to the Department of DWS and two copies 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
- It may be noted that no consultancy fee, honorarium will be payable to any technical expert. However, 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 departmental web site. However, the State Governments are free to select their expert 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 Department of Drinking Water Supply (DDWS) will continue to practice and promote e-governance activities within the Department 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-DDWS 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/up gradation) of MIS/Application Software Package
   a Operation and Maintenance – MIS
   b Development of State PHED/RWSS Dynamic Website, its linkages with state/DDWS 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 DDWS (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 the 11th Plan e-Governance Guidelines
8 Computerised Grievance Redressal system at the State
9 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 DDWS the activities

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

During 9th Plan to part of 11th 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 it is proposed to extend the same 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 GoI. 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 11th Plan period also. NIC will assist the Department at the National Level. The NIC State Unit may 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 CE offices and State PHED/RWSS Secretary and DDWS HQ (One in each office).

4. Strengthening of Application Software /MIS Package Implementation

During the 10th 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 2001 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-tendering/e-procurement.

5. Content Management

For making MIS data compliant with 2001 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 DDWS 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.

11. Installment of Release of Funds to NIC/NICSI

For proposals submitted by NIC/NICSI, for execution of these guidelines through the Central Monitoring Cell, funds would be released to the executing agency in two installments. The 1st installment (60%) would be released after approval of the project by DDWS. The last installment (40%) would be released after submission of expenditure statement by NIC/NICSI and 60% utilization of funds released in 1st installment. In case the funds cannot be utilized by NIC/NICSI, the same should be fully refunded to GoI.

12. Completion of Project Sanctioned

Project sanctioned must be completed within the project period. In case it is not completed, valid reasons will have to be submitted by the States/UTs Government, failing which funds would have to be reimbursed to Government of India.

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 Department of DWS for which 100% funding to research organizations including NGOs is given by the Central Government.

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

Department of Drinking Water Supply, Ministry of Rural Development, 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

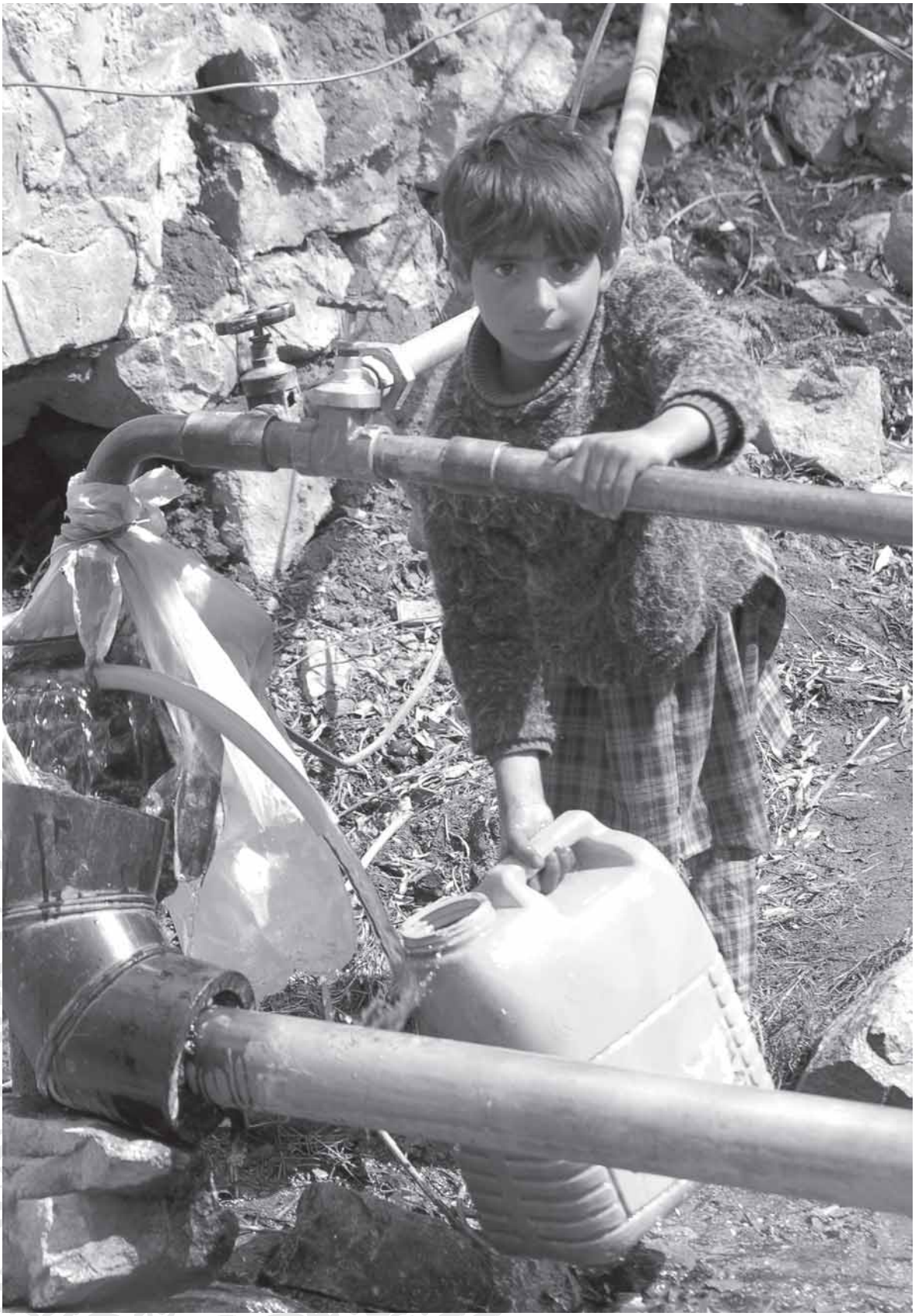
Development of appropriate rural sanitation technology

- 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:// ddws.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 Department of Drinking Water Supply, Ministry of Rural Development may be adhered to.



Annexure VII

Institutional Set Up at State, District 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 (TSC). 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., 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 Department of Drinking Water Supply , 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 DDWS 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 DDWS 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 CCDU, WQM & S, MIS, R&D, M&E etc., to be under taken by State Water and Sanitation Support Organization needs to prepared and got approved in the SLSSC as per the guidelines issued by DDWS.
- 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.
- 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 Department 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 Department, 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 NRWQM&S (DWT Labs), MIS/Computerization project, M&E and IEC&HRD (CCDU), R&D, etc. These are activities for which 100% fund are provided (as Support Funds) by Department of Drinking Water Supply, Ministry of Rural Development, Government of India. The personnel can be engaged as per CCDU guidelines and the State Government should clearly define their role and functions. The main functions of WSSO are as follows:

- This organization would only deal with software aspect of RWS sector and may not be involved in implementation of water supply schemes;
- 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 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 CCDU;
- 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.

	Post	Numbers	Source of Recruitment
1.	Director	01	PHED/on deputation/ contract
2.	State Coordinator	01	PHED/on deputation/ contract
3.	Accountant	01	PHED/on deputation/contract
4.	Consultants	03	contract
5.	Data Entry Operator	02	contract

TA/DA for State Coordinator/Consultants as per State Govt. TA/DA norms

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 6th 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.

6. Gram Panchayat, Gram Sabha and 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 Village Water and Sanitation Committee (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 Health Committee set up under NRHM, so that water, sanitation and health issues are tackled together at the village/ward level. The membership of a VWSC may consist of about 6 to 12 persons, comprising members of Panchayat. Women, SCs, STs and poorer sections of the village should be given due representation in the VWSC. At least 50% of VWSC members should be women. This Committee shall function as a Standing 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.

VWSC will be responsible for:

- planning, designing, and implementing all 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 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 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.

7. Desirable qualifications and experience of CCDU Specialist Staff (suggestive)

I Director

Task & Qualification

- As an Administrative & Technical Head of 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/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 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 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 (CCDU)

Minimum Requirements:

a. 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

b. Knowledge of participatory methods and their application will be an advantage
c. Preference for candidates with experience in Rural Water Supply and rural Sanitation Programme
d. Knowledge, ability to use computer; MS Office including graphics is essential
e. Should have excellent written and oral communication skills
f. Should be updated on development issues, social policies and the ability to liaise with different government departments, resource institutions, NGOs, individual experts
g. 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 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. 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
b. Good knowledge & experience of the rural water supply & sanitation programmes, PRI systems and NGO network
c. Experience in Communication Strategy development, implementation and impact assessment of IEC interventions
d. Knowledge, ability to use computer; MS Office including graphics is essential
e. Excellent written and oral communication skills
f. Ability to work independently without any secretarial support
g. Should be updated on development issues, social policies and have the ability to liaise with various departments, institutions, NGOs and experts
h. 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 programmes.

- Analyse physical and financial progress and prepare status report for SWSM/SLSSC meetings.
- Critically analyse the processes adopted under RWS and TSC 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 (CCDU)
- Undertake any other assignment as directed by Director (CCDU)

Minimum requirements

a. 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.
b. Good knowledge of RWSS/Rural Development Programmes and PRIs functioning
c. Knowledge of Evaluation, Monitoring and Appraisal of RWSS / Rural Development Programmes
d. Knowledge and ability to use computer, MS office including graphics is essential
e. Knowledge of web based / web enabled M & E programmes desirable
f. Excellent written and oral communication skills
g. Ability to work independently without any secretarial support
h. Should be updated on development issues, social policies and have the ability to liaise with various departments, institutions, NGOs and experts
i. Ability to establish good working relationships analyze, negotiate will be additional advantages.

Annexure VIII

Memorandum of Understanding between State Government of _____ and the Department of Drinking Water Supply, Ministry of Rural Development, Government of India

1. This Memorandum of Understanding (MoU) is drawn on the _____day of _____, 20___ between the State Government of _____ and the Department of Drinking Water Supply, Ministry of Rural Development, Government of India, for the Eleventh Plan Period.

2. Government investments in rural water supply and sanitation aim to reduce the incidence of water and sanitation related diseases, by advancing the nation towards universal access to protected and sustainable drinking water supply, the universal use of sanitary toilets and sound personal, home and community hygiene behavior.

3. The State Government is committed to follow the parameters of Centrally Sponsored schemes in rural drinking water and sanitation sector, including the following priorities for coverage of rural habitations: -

- Meeting the National goal by 2012 for:
  a) Coverage of all rural habitations with availability of adequate safe water to meet drinking and cooking and other domestic needs.
  b) Covering all habitations that have water quality problems.
  c) Covering 'slipped back' habitations with built-in sustainability component as per norms prescribed by the State Government.
- In preparing Annual Action Plans under NRDWP highest priority will be given to coverage of 0% population covered habitations and quality affected habitations, followed by 0-25%, 25%-50%, 50%-75%, 75%-100% population covered habitations.
- Give priority to coverage of SC, ST, OBC and minority population dominated habitations.
- Coverage of all Government rural schools and Anganwadis where safe drinking water sources could not be provided under outlays allocated by the Department of School Education and Literacy, , Ministry of Human Resource Development or Central Finance Commission Funds.
- Norms in term of lpcd and distance for coverage of population may be decided by the respective State Government.
- Prepare a Strategic plan for covering all households with piped drinking water supply within the household premises.

4. The State Government commits to attain full sanitation coverage in the rural areas by the end of the XIth Plan. It is committed to allocate the funds required for its share of the

projects and actively promote sanitation through appropriate IEC.

5. The State Government commits that the flow of funds to the rural drinking water and sanitation sector by it, would over time be appropriately enhanced so as to attain the goals set by the Central and State Government by the stipulated dates. The State Government undertakes to make provision in its budget to provide its share, where required, of funding.

6. The monitoring of water quality (to ensure that it is safe) is the responsibility of the supplier i.e. State Government and the Panchayats. The State Health Department and the users shall be given the responsibility for water quality surveillance.

7. The State Government will ensure that each water supply scheme will incorporate, as appropriate, source-strengthening conservation measures, rain water harvesting and ground water recharge systems for source sustainability. This would be achieved by converging with MGNREGS, Integrated Watershed Management Programme and schemes of other Departments.

8. The State Government shall take steps to set up independent monitoring arrangements at the State and district levels to regularly assess, document and disseminate at periodic intervals the manner in which the processes and projects are being executed and the impact of these projects in terms of households using drinking water from protected sources, households using clean toilets, people washing hands before eating and after defecation, and households disposing the excreta of children in a safe manner..

9. The State Government shall regulate extraction of groundwater in over exploited, critical and semi-critical blocks for effective ground water extraction control and recharge.

10. The State Government shall ensure integration of rural drinking water, sanitation, health, and hygiene programmes at the State, District, Block and GP levels.

11. The State Government is committed to a timetable for decentralization of service delivery for rural water supply and sanitation. (Timetable is to be decided by State for the following aspects. The incremental progress is to be indicated in the Annual Action Plan.).

- Putting in place an appropriate delivery structure at the district, Block and Gram Panchayat levels (DWSM, VWSC under GP).
- Empowering PRIs/DWSM/VWSC/ communities to have the powers to plan, sanction, implement, operate, maintain and manage water supply and sanitation schemes.
- Providing technical, administrative support to the GPs/DWSM/VWSCs. JE rank support for a group of GPs.
- Undertaking necessary legislative measures to ensure transfer of assets to and their management by PRIs.
- Vesting responsibility of O&M with the PRIs/VWSCs.
- Empowering PRIs/VWSCs to charge for the service provided.
- Involving GPs in monitoring water availability, demand management and conservation.
- Creation of a Village O&M Fund.
- Capacity building of all stakeholders.

13. The State Government will carry out activity mapping indicating the process, time frame and incremental improvement towards transfer of "funds, functions and functionaries" to the three tiers of Panchayati Raj Institution in such a way as to enable them to plan, implement and manage the rural water supply programme.

14. The role of Department of Drinking Water Supply, Ministry of Rural Development, Government of India would be to provide necessary financial and technical support to the State Government in their efforts.

Annexure IX

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

Name of the State/UT:	**(Rs. in lakh)**

NRDWP

1. Unutilised opening balance as on 1st April of the previous year
   NRDWP
   DDP – Areas
   Support funds
   Special assistance, if any

2. Amount released during the previous year
   NRDWP
   DDP – Areas
   Support funds
   Special assistance, if any

3. Total Available funds during the previous year
   NRDWP
   DDP – Areas
   Support funds
   Special assistance, if any

4. Expenditure during the previous year
   A. NRDWP
      a) Coverage
      b) Water Quality
      c) Sustainability
      d) O&M
   B. DDP – Areas
   C. Support funds
   D. 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. Support funds
   - D. Special assistance, if any (e.g. Calamity fund release)

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6. Amount released during the current financial year:
   - A. NRDWP
     - a) Coverage
     - b Water Quality
     - c) Sustainability
     - d) O&M
   - B. DDP – Areas
   - C. Support funds
   - D. Special assistance, if any (e.g. Calamity fund release)

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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. Support funds
   - D. Special assistance, if any (e.g. Calamity fund release)

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8. Expenditure as per latest IMIS report
   - A. NRDWP
     - a) Coverage
     - b) Water Quality
     - c) Sustainability
     - d) O&M
   - B. DDP – Areas
   - C. Support funds
   - D. Special assistance, if any (e.g. Calamity fund release)

MNP

9. Provision during the last year
   Expenditure incurred during the previous year

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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

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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.

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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
(i) 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 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
State			
NRDWP			

Signature
(of Secretary in-charge of Rural Water Supply)
Place
Date

Annexure X

Utilization Certificate for the Year 20___-20___

(To be printed out from IMIS filled in and certified by Secretary in-charge of RWS)

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.

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 verifiable term)
      a. Number of Habitations covered as per the target for the year
      0% population coverage

0%-25% population coverage
25%-50% population coverage
50%-75% population coverage
75%-100% population coverage
Quality affected
SC dominated
ST dominated
Minority dominated

b. Number of Government rural schools covered
c. Population benefitted
Scheduled Castes
Scheduled Tribes
Minority
Total

ii) Output (in verifiable term)
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

Kinds of Checks Exercised:
1.
2.
3.

Signature
Designation
Place
Date

Counter Signature
(of Secretary in-charge of Rural Water Supply)
Place
Date

_____

* Delete whichever is not applicable

Rajiv Gandhi National Drinking Water Mission
Department of Drinking Water Supply
Ministry of Rural Development
Government of India
www.ddws.gov.in