

### 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 2008-2012



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



## Foreword

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## **Abbreviations**

AMC	Annual Maintenance Contract	DWSM	District Water and Sanitation
ASHA	Accredited Social Health Activist		Mission
BAIF	Bharatiya Agro Industries	GIS	Geographical Information System
	Development Research Foundation	GoI	Government of India
BIS	Bureau of Indian Standards	GP	Gram Panchayat
CAG	Comptroller and Auditor General	GPS	Global Positioning System
	of India	GSI	Geological Survey of India
СВО	community-based organisation	HADP	Hill Areas Development
CCDU	Communication and Capacity		Programme
-	Development Unit	HRD	human resource development
CEE	Centre for Environment and Education	ICT	Information and Communication Technologies
CGWB	Central Ground Water Board	IEC	information, education and
CSE	Centre for Science and		communication
CSIR	Environment Central Scientific Industrial	IMIS	Integrated Management Information System
	Research	IT	Information Technology
CWC	Central Water Commission	IIH&PH	Indian Institute of Hygiene and
CWSAP	Comprehensive Water Security		Public Health
	Action Plan	IIRS	Indian Institute for Remote Sensing
DA	dearness allowance	IIT	Indian Institutes of Technology
DDP	Desert Development Programme	JBIC	Japan Bank for International
DPAP	Drought Prone Areas Programme		Cooperation
DPEP	District Primary Education	M&I	Monitoring and Investigation
	Programme	MIS	Management Information System
DPR	Detail Project Report	MoU	Memorandum of Understanding
DWCRA	Development of Women and Children in Rural Areas	NEG	National Expert Group
DWCC	District Water and Sanitation		
DWSC	District Water and Sanitation Committee	NEP NGO	New Economic Policy Non-governmental organisation

NGRI	National Geophysical Research	SC	Scheduled Caste	
	Institute		self help group	
NIC	National Informatics Centre	SLC	State Level Committee	
NICSI	National Informatics Centre Services Inc.	SLSCC	State Level Scheme Clearance Committee	
NICD	National Institute of Communicable Disease	SLSSC	State Level Schemes Sanctioning Committee	
NIRD	National Institute of Rural Development	ST	Scheduled Tribe	
NPC	National Project Committee	STA	State Technical Agency	
NREGS	National Rural Employment Guarantee Scheme	SWOT	Strengths-Weaknesses- Opportunities-Threats	
NRDWQM&S	National Rural Drinking Water Quality Monitoring & Surveillance	SWSO	State Water and Sanitation Support Organisation	
NRHM	National Rural Health Mission	SWSM	State Water and Sanitation Mission	
NRSA		TA	travel allowance	
NRDWP	National Remote Sensing Agency	TSC	Total Sanitation Campaign	
NKD WI	National Rural Drinking Water Programme	TWAD	Tamil Nadu Water Supply and Drainage	
O&M	operation and maintenance	UT	Union Territory	
OBC	Other Backward Caste	VAP	Village Action Plan	
PHC	Primary Health Centre	VWSC	č	
PHED	Public Health Engineering Department		Village Water and Sanitation Committee	
PPP	Public-Public Partnership	WSSA	Water and Sanitation Support Agency	
PRI	Panchayati Raj Institution	WSSO	Water and Sanitation Support	
R&D	Research and Development	11000	Organisation	
RDBMS	Relational Data Base Management System	WHO WQM&S	World Health Organisation Water Quality Monitoring &	
REC	Regional Engineering College	WQMXS	Surveillance	
RGNDWM	Rajiv Gandhi National Drinking Water Mission			

## Units of Measure

## National Policy Framework

### 1. National Goal

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 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 groups in the 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. Willingness to pay under adverse conditions cannot be interpreted as affordability to pay.
- Drinking water supply cannot be left to the market forces alone as it does not recognize the importance of providing livelihood supply to all, nor does it ascribe an appropriate value to health of the people. The commodification of drinking water will shift the focus to profits to be made from the scarce resource rather than human rights to water for livelihood.

- As, such the emphasis is more on Public-Public Partnership rather than commercialization of the drinking water supply programme by the private agencies.
- Maintenance cost of the water supply system should have an inbuilt component of cross-subsidy to ensure that the economically backward groups are not deprived of this basic minimum needs.

### 3. Vision

- To ensure permanent drinking water security in rural India.
- For ensuring drinking water security, measures to improve/augment existing drinking water sources should be taken up and conjunctive use of groundwater, surfacewater and rain water harvesting is adopted based on village water budgeting and security plan prepared by the community/local government.
- It is also important that the system delivers services for its entire design period and the quality of water is in conformity with the prescribed standards at both the supply and consumption points.
- The issue of potability, reliability, sustainability, convenience, equity and consumers preference should be the guiding principles while planning for a community based water supply system

### 4. Paradigm Shift

 The present trend to measure coverage in terms of litres per capita per day underscores

- the principle of meeting the basic minimum need of drinking water for all the rural population on a sustainable basis.
- However there is a need to shift 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 need and also the need for cattle and other similar households is met.
- Water supply for drinking and cooking should maintain high quality as per the prescribed potable standards and for other household and animal needs, the water should be of acceptable standard.
- To ensure prevention of contamination of drinking water which are supplied by a single pipeline instead of intermediate supply it is advisable to supply 24 hours where ever possible but cost of supply of water beyond the basic minimum need is to be borne by the consumer.

- To ensure this it is 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.
- For ensuring quality of water Bureau of Indian Standard (BIS) IS:10500 was 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 adopted 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 a water safety solution. They include both water quality





- 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.
- Based on the above paradigm shift in policy the "Accelerated Rural Water Supply Programme" has been renamed as "National Rural Drinking Water Programme (NRDWP)".

### 5. Steps to Ensure Source Security

 In order to achieve water security at the individual household level, the water supply system need not depend on a single source

Water supply for drinking and cooking should maintain high quality as per the prescribed potable standards and for other household and animal needs, the water should be of acceptable standard.

- testing and also sanitary inspection to determine appropriate control measures. They are quality assurance tool that ensure protection of the water supply scheme from the catchment to the consumer and from the tap to the toilet.
- Health based target need 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 the water supply to contamination. This has been indicated under 'National Rural Water Quality Monitoring & Surveillance Programme' explained latter on.

- because of its vulnerability under different circumstances.
- During natural calamity or pollution for 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 marginal people and cattle.
- It is not simply the supply of two distribution networks with two water supply lines for potable and non-potable water. It involves conservation and storage of water and utilizing different sources for different applications.
- For example for drinking and cooking water rain water properly collected and stored, treated surface water and ground water with or without treatment as the case may be. For

- bathing and washing untreated surface or ground water and rain water. For toilet water grey water, reuse water from bathing may be used.
- To ensure risk and vulnerability reduction on such occasions and ensure reliability and sustainability, a good frame work should consider different drinking water sources accessible in different situation and different point of time.
- Adopt 'Wise Management of Water' for the equitable use, management and allocation of water for domestic purpose which involves optimize use of both conventional and non-conventional water resources and focuses on both the 'water quality and water quantity' by providing solutions from the catchment to consumer.
- Adopting integrated approach by revival of tradition 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
- Storage of rain water for drinking water both at the community level and at the household level will ensure drinking water security even in adverse conditions for few months. With sufficient storage capacity it may be sufficient for the whole year.
- For all ground water based water supply schemes, either old, new or defunct ground water recharging mechanism should constitute an integral part of the system design.
- For surface drinking water sources, it is of utmost importance to protect the catchment to prevent its pollution from human and animal excreta and other types of bacteriological contamination. Well designed bunds, channels, bed protection, and convergence with Total Sanitation Campaign are a pre-requisite for surface drinking water source protection.
- Convergence with the NREGS 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, stand-alone water purification systems also could be promoted.
- Combination of all the aforementioned approach will lead to wise water management of drinking water at the community level.

### 6. Long Term Sustainability

- To ensure lifeline drinking water security under all circumstance and all times, it is important to have an alternate sub district, district and or state level water supply system in the form of grid supplying bulk water to GPs/village by adopting appropriate system of pricing.
- State or district or sub district level grid could be in the form of major pipelines (Gujarat), canals (Punjab) or any other appropriate system connecting major water bodies/ sources.
- Treatment could be at the delivery point or at the point of 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 infrastructure created and service available at the household level.
- The issue of sustainability of source and system and 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 entire programme, so far has been totally managed by the Government (except Swajaldhara projects), without the active participation of the stakeholders.
- This inevitably has resulted as a hindrance to the development of more efficient and lower cost options for service delivery and also

- denying opportunity to the 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, as well as the increasing demand of the rural population for higher service levels in the given scenario of rapid depletion of fresh water availability for drinking.
- The fund requirement to provide safe drinking water to all on a sustainable basis will be staggering.
- In addition to this the other factors which have also contributed to the rapid deterioration of the water supply facilities resulting in non availability of service for which it has been constructed are: over dependence on ground water and depletion of ground water level which also increases the incidences of quality problems; sources go dry leading to systems becoming defunct due to competing demand of ground water from other sectors, poor recharge, large scale deforestation and lack of the 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 have indicated that current farming practices waste 60 percent more water than what is required. 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 which is known as 'virtual water' transfers. There is enormous scope for improvement in this regards by adopting crop and social regulation of water for ensuring fresh water availability for drinking on a sustainable basis in water scare areas.

• In the context of both the resource constraints and competing demands on resources and inter se priorities, it is unlikely that the Government alone would be able to meet this 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 suite 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 every household level on sustainable basis.
- Coverage of a particular village should be indicated based on these criteria.
- However the issue of equity and basic minimum needs is to be considered while designing the schemes and planning investment.
- A habitation in which all the household do not have the basic minimum drinking water facility at a convenient location on a sustainable basis of potable quality is to be considered as uncovered.
- At present there is no distinction between habitations not covered due to quality or quantity because in either case the same steps are to be taken to provide alternate potable – adequate water to the household.
- However the breakup of basic minimum need of potable drinking water supply in rural area that has been adhered to since the inception of ARWSP (1972) to 31.3.2009 is given at Annexure I.



## Modified Programme

### 9. Modified Programme

#### 9.1. Modification

- In the Eleventh Plan, priorities for the sector have been identified. Under the plan, sustainability of the water supply schemes has to be ensured and "slip backs" are to be contained.
- The maintenance of water supply systems, ensuring water quality, reliability and convenience of availability to every rural household in equitable manner has been given the priority.
- Mere calculation of per capita availability may deny some sections of the population the assured access to potable drinking water.
- Starting with the Eleventh Plan, the endeavor is to achieve drinking water security at the household level.
- 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.
- The fundamental basis on which drinking water security can be ensured is the decentralized approach through Panchayati Raj Institutions (PRIs) and community involvement.
- It is necessary to build a warehouse of information and knowledge at the State and district levels which can constantly 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.

#### 9.2. Revised Criteria

The revised sets of norms and criteria for the rural drinking water supply schemes will be as follows:

- 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 transfer of water, its treatment and distribution up to the doorstep of the village, whereas inside the village, it is the PRIs or its sub-committee i.e. Village Water and Sanitation Committee (VWSC)/ Pani Samiti which is to take over the full responsibility for in-village drinking water supply and its management;
- The Government to play the role of facilitator and with the help of NGOs/CBOs, civil society, build the capacity of local community/PRIs to manage the in-village water supply systems and sources;
- 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.
- Transfer drinking water supply systems to communities and PRIs for management, operation and maintenance,
- Reward Good performance and achievement of sustainability

 Ensure and encourage appropriate data inputs to ensure equity in water supply investments to all habitations and all sections of the rural population with priority to habitations which had no investments in the recent past.

## 9.3. Components of the Modified NRWS Programme

To meet the emerging challenges in the rural drinking water sector relating to availability, sustainability and quality, the components under the programme will be NRDWP (Coverage), NRDWP (Sustainability), NRDWP (Water quality), NRDWP (DDP areas), NRDWP (Natural calamity) and NRDWP (Support). The earmarking of funds and the Centre:State share in funding, will be as follows:

- NRDWP (Coverage): 38% 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, 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 addressing water quality problems to enable rural community 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) Swajaldhara: 20% of the NRDWP funds will be earmarked for this component 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.
- The States will be required to prepare district-wise Drinking Water Security Plan and funds under this component will be used to fund the gap in this plan. The ongoing Swajaldhara programme will be continued and subsumed under this component. Government of India may also support pilot projects in States for demonstration purpose. Under this component, funding will be on 100% basis.
- NRDWP (DDP Areas): 5% of the annual NRDWP funds will be allocated amongst States having DDP blocks/districts, which will be funded on 100% basis.
- NRDWP (Natural calamity): 5% of the NRDWP funds will be used for providing assistance to States/UTs to mitigate drinking water problems in the rural areas in the wake of natural calamities.
- NRDWP (Support): 2% of NRDWP funds 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/ imageries; GIS mapping; MIS and computerization; etc. and other sector support activities, viz. water quality monitoring & surveillance programme; information, education and communication: water testing laboratories; human resource development in the sector; training, conferences, seminar, R&D activities, CCDU, etc. Under this component, providing potable drinking water to rural school children will also be promoted.
- As a part of ensuring sustainability of sources and systems, incentivizing good behavior in Gram Panchayats to create drinking water security in their jurisdictional areas will also be focused. Guideline for "Swajal Gram Purashkar" is given in Annexure II

### 9.4. Flexible Policy

- There will be incentives for States to decentralize and hand over water supply systems for management, operation and maintenance to Gram Panchayats. Since there is a wide variation among States having water quality problems and left over of uncovered habitations, under different components of NRDWP, viz. Coverage, Water Quality, and Sustainability–Swajaldhara funds will be allocated to States/UTs with the flexibility to choose the component(s) under which, they would like the funding to be provided.
- Funds for coverage and water quality which is based on 50:50 funding between GoI and States may be merged based on the extent of problem in each State.
- The 20% allocation for Sustainability (Swajaldhara mode) which is 100% grant-in aid 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, overexploited, 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 12th Finance Commission funds are to be utilized and basic principles are to be adopted. Under this component preparation of village water security plan is mandatory. Guideline for planning and implementation of Sustainability-Swajaldhara project is enclosed as Annexure III.
- 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 a 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 sustainability projects under rural drinking water supply programme.
- There are many fields where technical support from the Rajiv Gandhi National Drinking

Water Mission would be required by the States to achieve the long term goal of the sector. Thus, support for satellite-data imagery, GIS mapping systems, use of GPS system for unique identification of habitations and the water sources and delivery points, support for successfully deploying the central online monitoring system (IMIS) and such other activities would be made available. Water quality monitoring & surveillance, water testing laboratory, information, education and communication, human resource development, engaging State Technical Agency and National Experts Groups for preparation of Projects, technical scrutiny and evaluation of rural water supply schemes will also be supported.

## 9.5. Criteria for Allocation of Funds under NRDWP

Criteria for allocation of funds to the States under the NRDWP w.e.f. 1.4.2009 will be as under:

S. No.	Criteria	Weightage (in %)
i.)	Rural population	60
ii.)	Rural population managing rural drinking water supply schemes (from number of GPs managing drinking water assets/ distribution)	10
iii.)	States under DPAP, HADP and special category Hill States in terms of rural areas	30
	Total	100

In case of NRDWP (DDP Areas), criteria for allocation of funds would be the same except for the purpose of rural area, the area of DDP blocks would be considered. The Desert Development Programme was in operation in 131 blocks of 21 districts in 5 States upto 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 under which the DDP blocks falls for taking up rural water supply projects in theses blocks only. The States where DDP is under implementation along with the number of blocks and area are indicated in the table below:

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

 The allocation of Central assistance under the NRDWP for a financial year would be communicated to the States/UTs at the beginning of the financial year.

#### 9.6. Incentive 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 (from number of GPs managing drinking water assets/distribution)'.
- 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 (from number of GPs managing drinking water assets/distribution)' before 31st March every year to enable the

- Department to finalize the allocation in the beginning of the next financial year.
- In case, any State/UT fail to furnish the information before 31st March, the Department would go ahead and make the allocation among those States/UTs from which information received and or available.
- From this Incentive fund, States/UTs may take innovative projects to further the ongoing decentralization and reforms, ensuring sustainability of sources, equity, technological innovations, etc.

#### 9.7. O&M Fund

- The Twelfth Finance Commission has recommended separate grants to PRIs, which is meant to partly meet the operation and maintenance expenditure incurred by the PRIs on ensuring potable drinking water supply.
- 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.
- All water supply schemes within the GP shall be maintained by 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 are to be maintained by GP. State Governments shall endeavor to develop sustainable sources of funding for maintenance of rural water supply schemes and shall ensure that the 12<sup>th</sup> Finance Commission and O&M fund release by RGNDWM is properly utilized.
- The aforementioned arrangement will continue upto the end of 12<sup>th</sup> Five Year Plan period and with effect from 1.4.2012 the total O&M fund is to be met from the funds available under the 13<sup>th</sup> Finance Commission, PRI and State including community contribution as tariff for maintenance of the system.

## 9.8. Sub-mission Projects under Bharat Nirman

- The Sub-mission projects taken up for implementation before 1.4.2009 under Bharat Nirman rural drinking water component will continue to be funded on 75:25 basis by the Centre and respective State Governments. However, no separate funds will be released for this purpose. The Central share of these projects will be met out of the 20% of the NRDWP funds allocated/released to the States.
- Mitigation of all water quality problem issues w.e.f. 1.4.2009 shall be tackled under the normal National Rural Drinking Water Programme.

### 9.9. Ongoing Swajaldhara Projects

- Similarly, w.e.f. 1.4.2009, no separate funds will be released by the Government of India for ongoing rural water supply projects/ schemes taken up under Swajaldhara.
- The Central share will be met out of the 20% fund allocated to State/UT under NRDWP (Sustainability) – Swajaldhara component.

## 9.10. Provision of Drinking Water in Rural Schools

- All the States are required to compile data regarding district-wise rural schools in existence and number of them having drinking water facilities and feed this data online in the IMIS.
- The remaining rural schools and Anganwadi are to be provided with drinking water facilities.
- A part of this work will be accomplished through the funds provided by Twelfth Finance Commission and the rest would have to be covered under the rural water supply programme, 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.
- States would be required to fix target for coverage of rural schools on an yearly basis

- and intimate its achievement to the Mission on monthly basis along with the progress reports being submitted, online, to intimate coverage of habitations
- This activity is to be carried out in coordination with NEP, DPEP, DWCRA, Anganwadis, Department of Social Welfare and Department of Education. All the rural schools should be covered with drinking water facilities by end 2008.

### 9.11. Public Drinking Water Facilities

- In rural context drinking water is to be provided to every public place, including school, anganwadi, public buildings, PRI offices, community halls, markets, temples, religious institutions, market places mela ground etc,.
- Provision of water supply system in such public places will reduce the burden on individual house hold drinking water needs and will ensure self-sufficiency in public places.
- Provision of drinking water facilities is required to be made to cater to the need of floating population by installing street stand posts at convenient locations.
- Improved accessibility to drinking water facilities by the rural people will reduce drudgery among the rural women as drinking water will be available at the household level.

## 9.12. Earmarking of Funds for SCs and STs:SCP and TSP Component

- To accelerate the assured availability of potable drinking water on sustainable basis in SC/ST dominant habitations, the State/UTs are required to earmark at least 25% of the NRDWP funds for drinking water supply to the SCs and another minimum 10% for the STs. In cases wherein, the States have achieved substantial coverage of SC/ST habitations so as to utilise 35% of the NRDWP funds, such States/UTs may incur lower level of expenditure on the coverage of SC/ST habitations.
- Where the percentage of SC or ST population in a particular State is considerably high

warranting earmarking/utilization of more than stipulated provisions, additional funds can also be utilized. As a measure of flexibility, States may utilize 35% of the NRDWP funds for the benefit of SCs/STs.

 The State Governments/UT Administration may separately monitor the status of assured availability of potable drinking water in SC/ ST habitations, as a distinct component.

## 9.13. 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 decisionmaking process.
- Since women are the principal beneficiaries of this programme and are pivot around which sustainability is evolved, 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.
- At least 30% of handpump mistries under various skill development programmes and other training schemes should be 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.
- Prominent women from the habitation should be represented in the Village Water and Sanitation Committees/Pani Samitis and should constitute atleast 50% of the committee.
- Each scheme/project for rural water supply should mention the extent of the involvement of women.

### 10. Support Activities

NRDWP (Support): 2% of NRDWP funds will released to States every year for undertaking

software support activities mentioned in para 9.4 (iv). For this State Level Water and Sanitation Support Organization (WSSO) needs to be setup under State Water and Sanitation Mission (SWSM) as explained in para 12.4. Activities to be under taken by the States under this fund are mentioned below:

## 10.1. Water Quality Monitoring & Surveillance (WQM&S)

Under the Modified National Rural Drinking Water Programme the issue of Water Quality Monitoring & Surveillance has been given major emphasis and it is proposed to develop data from household level to be link to the data base at the Mission Level to ensure drinking water security at the household level.

The National Rural Water Quality Monitoring & Surveillance Programme was launched in February 2005 has been modified to be implemented w.e.f. 1.4.2009 which has the following components:

- The enormous task of drinking water quality monitoring & surveillance in rural areas requires 160 lakh samples to be tested annually with a norm of one sample per 200 populations.
- At present in most of the States the State Rural Water Supply Departments have skeleton Water Testing Laboratory at the Districts only funded by RGNDWM since 1988 @ Rs 4 lakh per laboratory. It is practically impossible to test all the drinking water sources of the villages in the district laboratories. In some of the districts the horizontal distance may be more than 100 kilometers and in hilly area and in difficult terrain it may take 6-8 hours of travel to reach the District Water Testing laboratories.
- The water quality issues under rural drinking water supply programme have multiplied enormously and require 'State of Art' Water Testing Laboratories at the district and every sub-division office of PHED should have water testing facilities specially for testing of biological parameters and in specific areas for testing of chemical parameters. Detail of the Sub Division Water Testing Laboratory is indicated in **Annexure IV** (A).



- received by ASHA under NRHM. The selected member will perform other supporting roles related to water supply and sanitation for the panchayat as specified at (x) below.
- The approach, strategy and mode of implementation of the WQM&S programme 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.
- The role of the 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 the same as defined in the NRDWQM&S guideline.

Women generally manage domestic water, and an essential ingredient of community participation is to improve women's involvement in the democratic decision-making process.

- The existing Potable Testing Kits may be continued to be used for primary detection of chemical and biological contamination of all the drinking water sources in the villages.
- IEC and HRD components of NRWQM&S are now linked to CCDU.
- House holds data to be collected by two village level members (a) VWSC member and (b) ASHA of NRHM (as totally independent data flow from another department may hamper the flow of data). One of the VWSC members is to be selected at Gram Sabha and fully accountable to the Panchayat. It is proposed to pay a consolidated pay (performance based and need based) to VWSC member(s) similar to payment
- At present under NRWQM&S Water Testing facilities are only available at the District Level. It is impossible to collect samples from all the sources from the habitation and get it tested at the District Laboratory. It is proposed to establish Water Testing Laboratory 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 Centres (1 per 30,000 population i.e. approximately for 30 to 40 villages/cluster of GPs)
- The broad assignment of the two village level enumerators is indicated below (format for collection data to be designed accordingly):

Sl. No.	Role of VWSC member	Role ASHA/VWSC member
	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
	Identify all sources of drinking water for different purposes.	Collect sample for testing and transfer at the PHC for testing biological parameters
iii	Test all the sources by potable testing kits.	Carry out sanitary inspection of all the sources
	Collect samples for testing and transfer at 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
	Record detail of water supply sources and system in the village/GP.	Record keeping of all water and sanitation disease related data
	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.

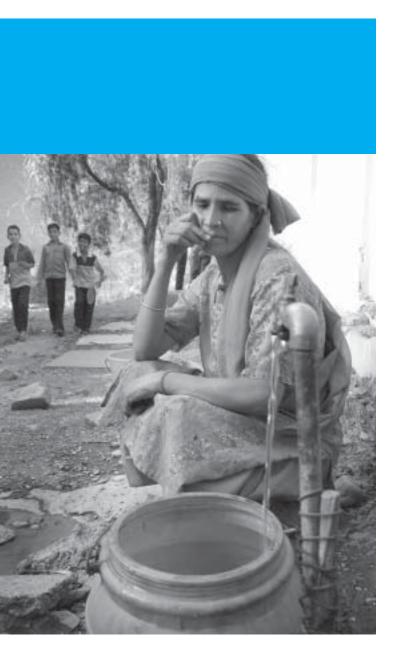
- All the household data at the Sub division level/GP level needs to be consolidated verified for categorizing the village as covered or uncovered (due to quantity or quality or both).
  - Action for dealing issues related to all the physical (turbidity) and biological water quality parameters are to be taken at the GP, PHC (for biological contamination) and Sub division level as these can be easily dealt at that level on day to day basis. For example biological contamination of drinking water source can be dealt at the village/GP by disinfecting the source on the same day and for that the village need not be shown as not covered at the national level.
- Under MIS and computerization programme all States have been provided with computer up to the Division level and under the present guideline provision has been made for provision of computers at the Sub-division level. Under the proposed guideline it is proposed to provide the same facility to all the district and Sub division laboratory.
  - GPS will be provided to all the sub-division level for defining the location of all rural drinking water sources. Uniform coding of all the drinking water sources is to be adopted. GIS maps available with the Block may be obtained to develop digitized Polygon Village boundary maps and locate the drinking water sources for preparation of water quality maps.
- All data collected at the District level from sub-division, and laboratories are to be

- consolidated village wise at the district level and entered online to the National (Mission) level central MIS system.
- Modified WQM&S Guideline is given in Annexure IV.

## 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 with the following objectives:

- Its aim is to create awareness among rural people on all aspect of rural water supply and its related issues and to enhance capacity of the Panchayati Raj Institutions/Local Bodies with the objective of enabling them to take up planning, implementation and operation and maintenance activities related to rural water supply systems.
- It also aims at capacity building of local communities by giving requisite training to mechanics/health motivators/masons etc, especially women to operate and maintain handpumps and the components of other water supply systems as well to generate demand for adequate sanitation facilities.
- For training at the grass root level, the States/ UTs may build up a pool of district level trainers who could be sent for training to the



- participating institutions.
- The emphasis of IEC programme should not be on hardware aspects but should be aimed at front loading software with the objective of generating a felt need which would result in an increased demand for safe drinking water and better sanitation facilities. Awareness on matters related to water borne diseases manifestations and symptoms should be created.
- The services of the State Publicity/Public Relations Department should be utilised to provide publicity to the rural water supply programme through mass media to disseminate information about the

- programme, highlighting the achievements, emphasis on use of safe water to overcome water borne diseases, etc.
- The importance of using safe water, using water as a socio-economic good and the problems related to water quality in any specific area should be highlighted.
- This could be done by bringing public awareness through appropriate methods like folk songs, folk drama, documentary films, pamphlets, brochures and other local means suited to the area.
- Publicity should also be given in the local newspapers about the action plan for coverage of habitations actually covered on year to year basis with other details like the type of schemes provided, the service level, delivery system, agency responsible for operation and maintenance, etc.
- 100% Central funds will be provided during the plan period for activities under the CCDU, as per the guidelines is given in Annexure V.

### 10.3. Management Information System

For effective planning monitoring and implementation of various schemes under different programme, Information Technology (IT) based Management Information System provides for the following:-

- Maintenance of micro-level status of water supply data to ensure planning and monitoring at micro and macro level.
- Assistance for computer facilities upto 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/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.

100% Central assistance will be provided for all MIS activities including training during the plan period. National Project Committee constituted for MIS and Computerization will approve projects received from the States as per the guideline given in **Annexure VI**.

### 10.4. Research and Development

- 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 premier State Technical Agency as explained in para 12.6 below.
- The network of technical institutions may follow the guidelines issued by the Mission from time to time for effective implementation of the rural water supply programme. R&D Cells are also required to be in constant touch with the Monitoring and Investigation divisions and the Monitoring and Evaluation Study Reports for initiating appropriate follow up action.
- The R&D Cell should keep in constant touch with the documentation and information centre of the Mission and visit the Mission's web site.
- The Mission will provide necessary assistance to the States. Guideline is given in Annexure VII.

## 10.5. Programme and Project Monitoring and Evaluation

Central Government takes up monitoring and evaluation studies through reputed organisations/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.
- 100% financial assistance will be provided by the Centre to the States for taking up such evaluation studies with prior approval of the Mission.
- The reports of these studies should be made available to the Mission 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
- The purchase of sophisticated rigs on a very selective basis for remote and difficult access areas is to be financed out of the MNP funds.
- The expenditure will however, be counted as matching provision for central assistance under the NRDWP.
- A rig monitoring plan for the State should be drawn up right at the beginning of the year to effect optimum utilisation of these machines and the crew.

### 11.2. Monitoring and Investigation Units

- The Government of India has been providing assistance to the States to establish and continue special investigation divisions from the Fourth Five Year Plan to carry out investigation, planning and feasibility study of the schemes. The salient features of M&I are as follows
- The special monitoring cell and investigation unit at the State headquarters should be headed by an officer suitably qualified and of suitable level for monitoring and investigation with necessary supporting staff.
- Monitoring unit shall be responsible for collecting information from the executing agencies through prescribed reports and returns (Progress Monitoring System), maintenance of the data and timely submission of the prescribed reports and returns 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 and to provide the same 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 basis.

### 11.3. External Support Agencies

Various external support agencies like World Bank, KFW, JBIC etc. are willing to support projects in rural water supply sector. States who desire to avail such assistance may prepare project proposals as explained below:

- Projects submitted for external funding should include 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-people participating programme.
- These projects should include software component, drinking water supply, environmental sanitation, health education, income generating and other components.
- Approval of State Finance and planning
  Departments should be obtained to ensure
  that counterparts of Rural Development, after
  receipt of the projects, will scrutinize their
  technical soundness and socio-economic
  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 claim for reimbursement of assistance should be sent by the State to the Department of Rural Development for being forwarded to the Ministry of Finance.

### 12. Institutional Set Up

### 12.1. Village/GP Level

- Water is a socio-economic good and demand for basic drinking water needs is a fundamental right. Involvement of the community at the individual household level in the decision making process about its usage is therefore a necessity for ensuring sustainability of the system at the village level.
- Community should develop its own village water security plan taking into consideration the present water availability, reliability and its different usage and equity.
- While planning for drinking water security by the community it is important that the 'National Rural Water Quality Monitoring & Surveillance Programme' is integrated into this plan to ensure drinking water quality standards and a water safety plan should be developed.
- To understand the water and sanitation disease burden, its remedial measures of National Rural Health Mission should be under taken.
- It is envisaged that at least 20% drinking water security is to be achieved at the household level by adopting approach.
- The balance drinking water needs are to be met at the village, block or district level as the case may be by adopting integrated water resource management approach explained earlier.
- For the community to function as an organization it is important to make Village Water and Sanitation Committee (whose members should be elected in Gram Sabha) fully functional and effective. VWSC should be made a standing committee of the Gram Panchayat.
- VWSC can outsource the development of water supply scheme to the agency of its own choice after consultation with the community preferably at Gram Sabha.

- This would enable the community to obtain a higher quality of service and minimize capital and maintenance cost, through competitive selection of service providers among existing public and private agencies and other organizations. A performance improvement and operational plan should be developed as a basis for competitive selection of service providers incorporating issues mentioned in below.
- In cases where an agency is willing to provide water supply to the community on public—private-partnership basis, adequate support may be provided to the PRIs and VWSCs to ensure that such contracts are prepared properly so as to ensure that maximum benefit is derived by the community from such schemes. All such contracts should include the performance improvement and operational plan mentioned above at (ix).
- To ensure this, all aspects of demand management, supply management, resource management, water budgeting, cost of production of water, cost of investment and return on investment in terms of socioeconomic factors needs to be indicated in the tripartite agreement.

- This will ensure sustainability and reliability of drinking water supply to the community at the household level.
- While preparing such village based plans, Technical expertise available at village level should be harnessed before taking major technical decisions. In areas where technical experts are not available VWSC should seek assistance from the rural water supply department. Technical support to VWSC should be on a continuous basis so that improvement in the technological options is available at the village level.
- Broad Swajaldhara principles are to be followed while planning village based schemes with active involvement of women and marginal groups at every stage of planning, implementation and management of these schemes.

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

 The District Water and Sanitation Mission (DWSM) constituted at the district level, shall be a registered society under the overall State laws and should function under the





- proper and accurate monitoring and utilization of the funds and intimate the mechanism to the RGNDWM.
- Districts which do not have a proper PRI set up in place and or desire to supervise the working of the DWSM through alternative mechanism, may send a self-contained detailed proposal explaining the mechanism through which the District Water Security Plan will be prepared and implemented.
- However, in-village implementation, management, operation and maintenance will have to be carried out by the GPs/VWSCs/ Pani Samitis.
- The proposal may be furnished to RGNDWM to be placed for the consideration of the National Monitoring and Review Committee.
- The entire village water security plan should be consolidated and analyzed at the district level by DWSC. It should prepare a district based water security plan under the guidance

Broad Swajaldhara principles are to be followed while planning village based schemes with active involvement of women and marginal groups at every stage of planning, implementation and management of these schemes.

- supervision, control and guidance of Zilla Panchayat/Parishad subject to the following:
- Wherever Panchayati Raj Institutions (PRIs) are firmly in place and are ready and willing to take up the responsibility of effective implementation of District Water Security Plan and the PRIs are strong enough to do so, they may be allowed to implement the same in those districts instead of the DWSM.
- In such districts constitution of DWSM may not be mandatory. However, the districts need to ensure that separate bank account in a nationalized Bank to receive the central funds and are not mixed up with other funds provided to the Panchayati Raj Institutions for carrying out other activities. Such districts may ensure proper methodology for ensuring

- 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, NREGS, Watershed projects of Land Resources, Ministry of Rural Development, 12th Finance Commission programme, NRHM, various Watershed and Irrigation schemes of the Ministry of Agriculture, various schemes of the Ministry of Water Resource etc.
- This will require development of institutional capabilities and skill both at the District Planning Board/ZP level as well as at the village levels for preparing multi-sectoral water allocation, planning and management, including water distribution mechanism, and

- features to prioritize allocation for drinking water and protection against pollution.
- To enable the PRIs and the community organizations including VWSC to plan and implement water security plan on a sustainable basis awareness generation programme and capacity development programme under Communication and Capacity Development Unit (CCDU) is to be taken up on a continuous basis periodically.

#### 12.3. State Level

- State Water and Sanitation Mission (SWSM) should prepare broad State specific policy and programme implementation frame work to enable the PRIs and community organizations play their role effectively as explained above.
- An analysis of the past experience and the constraints faced will help the State level strategy paper to specifically include (i) institutionalization of the role of community in sector program (ii) social mobilization and awareness generation (iii) cost recovery mechanism based on 12th Finance Commission grants and cross-subsidization of the programme (iv) sound financial policies and practices (v) capacity building of the institutions and individuals (vi) integrated approach with other rural development projects and most importantly (vii) decentralized planning through local government institutions and community mobilization.
- Water and Sanitation Support Organization under SWSM has been already explained
- State level Technical Agency has been explained at 12.6.

## 12.4. Setting up of 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 CCDU, NRWQM&S (DWT Labs), MIS/Computerization project, M&E and IEC&HRD (CCDU), R&D, etc as explained in para 9 of the guideline for which 100% funds is provided 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 the role and functions of this organization.

As a first step towards achieving this objective, there will be a single State Water and Sanitation Mission (SWSM) at the State/UT level. The salient features of the institutional framework, composition of the SWSM and its role is defined in Swajaldhara guideline (2002) issued by Ministry of Rural Development, Government of India as given in **Annexure VIII**.

It will be providing the operational flexibility to the States/UTs, so that the desired thrust is made available for an integrated implementation of institutionalizing community participation under Rural Water Supply Programme and Total Sanitation Campaign (TSC).

The main function of (WSSO) areas is as follows:

- This organization would only deal with all software aspect of RWS sector and would 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 Organization and assist the PRIs and VWSCs to prepare water security plan and RWS projects based on the water security plan;
- Take up evaluation studies, impact assessment studies, R&D activities;
- Take up HRD and IEC activities;
- MIS and computerization programmes, GIS mapping and online monitoring systems.

## 12.5. Restructuring of State Rural Water Supply Implementing Agencies

PHEDs/Water Supply and Sewerage Boards are the primary executing agencies for commissioning water supply schemes at the state level. Changed water resource situation and need to adopt decentralized strategy emphasizing a user-driven demand-oriented approach necessitated these Engineering Departments to have a greater understanding about communication methodologies, PRA techniques and shifting their role to one of facilitator rather than service

provider. In this context the following steps needs to be taken:

- 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;
- Some States such as Gujarat, Kerala, Maharashtra, Tamil Nadu and Uttar Pradesh have constituted WSS Boards/Corporations to handle urban and rural water supply programmes based on the Third Five-Year Plan recommendation to form statutory water and sewerage boards. These autonomous bodies are empowered to negotiate loans and receive fund directly from Government of India and have lots of flexibility in day to day management of the programme. It is advisable to look in to the functions of these Boards by the State Government in converting the PHED into WSS Boards/Autonomous entities for effective management of the RWS programme
- Review their systems and procedures, staffing pattern, decision making process(s) of implementation, keeping in view the future role to be played by these organisations while pursuing the new policy of adopting a demand driven approach to supply, promoting community participation and cost sharing etc. of the systems under the rural water supply programme.
- More over the Department should ideally have additional separate wings on (a) Source Investigation and Development Unit (b) Health and social impact assessment Unit (c) Communication and social mobilization unit (d) Water quality monitoring & surveillance unit.
- Ideally there should be a single department in the States/UTs looking after both water and sanitation.

### 12.6. State Technical Agency (STA)

SWSM in each State in consultation with the RGNDWM will identify reputed Technical Institutions, designated as State Technical Agencies (STA) to which technical support from PHED/Boards can be outsourced. PHED/Boards can outsource the preparation of rural water supply schemes and carrying out state specific R&D activities or any other input required by the Department. The criteria for payment to STA for different services rendered are indicated in CCDU guideline given in Annexure V. For assisting in preparation of water supply schemes, village water security plan etc persons from the National Technical Expert Panel identified by RGNDWM/STA/State Government may also be engaged. The guideline for engaging the Technical Expert is given in Annexure V- C. 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 and give technical approval for consideration under SLSSC.
- To facilitate increase of resources and services of the PHED and also to monitor and review the implementation of the projects/schemes.
- 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 ensure coordination with various related departments for all scientific inputs for ensuring sustainable water supply systems.
- Mode of payment to STA for different activities is indicated in CCDU guideline given in Annexure V.

## 12.7. State Level Schemes Sanctioning Committee (SLSSC)

The power to plan, approve, implement and monitor the schemes/projects under NRDWP is delegated to States. In each State/UT, a State level Schemes Sanctioning Committee will be in place. The composition, power and functions of the committee is given in **Annexure IX**.

- Based on the Annual Water Security Action Plan, in the beginning of the year, schemes to be taken up for approval of the State level Scheme Sanctioning Committee should be firmed up.
- Annual Action Plan of all software activities under CCDU, Water Quality Monitoring & Surveillance, MIS, R&D, M&E etc., to be under taken by State Water and Sanitation Support Agency needs to prepared and get it approved in the SLSSC as per the guidelines issued by Department of Drinking water Supply, Ministry of Rural Development, Government of India.
- The agenda note for the meeting should be sent to the Mission in advance and representative of the Mission should be invited to attend the meeting of the State Level Scheme Sanctioning Committee.
- 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 during particular financial year.
- In a year, meeting of the committee should be held at least twice, 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 amount in the rural habitations of the State/UT.

#### 12.8. National Level

- Rajiv Gandhi National Drinking Water Mission to play the role of a facilitator for Inter-Ministerial and co-ordination at the national level.
- Provide technical support and technical experts (National Expert Group) to the States.
- Support for taking up R&D projects.

- Support all States/UTs for setting up Computerization in sub-division/block as per the MIS and Computerization guidelines.
- Conduct regular Monitoring and Evaluation of the programme.
- Support all the States for setting up CCDU as per the CCDU guidelines.
- Assist the States in case of natural disaster for restoration of damaged water supply system.

### 12.9. National Technical Support Agency

To assist the RGNDWS 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:

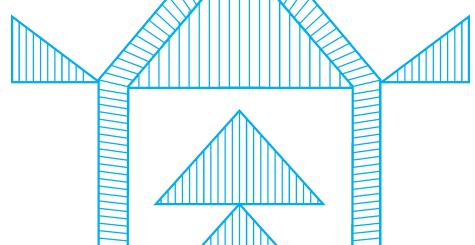
- All Central Scientific Industrial Research (CSIR) Laboratories and Organizations viz., CSMCRI (Bhavnagar), ITRC (Lucknow), CMERI (Durgapur), NCL (Pune), NEERI (Nagpur) etc.
- Central Ground Water Board (CGWB)
- Geological Survey of India (GSI)
- Department of Science and Technology (GoI)
- Department of Space Technology (GoI)
- Central Water Commission (CWC)
- National Remote Sensing Agency (NRSA)
- National Institute of Communicable Disease (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)
- Regional Engineering Colleges (REC)
- India Institute of Hygiene and Public Health (IIH&PH)
- Any other Central Agency dealing with RWS&S sector development.

## 12.10. Role of National Informatics Centre

National Informatics Centre would act as technical consultant for the Rajiv Gandhi Drinking Water Mission at the center and would have representation in the National Project Committee which is primarily 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 and 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. This will ultimately culminate into a national database on the rural water and sanitation sector.
- The State level NIC Officer is the member of the SLSSC Committee 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 proposal.





## Planning, Fund Release and Monitoring

# 13. Village and District Water Security Plan

- In many States, Gram Panchayats or its Subcommittee i.e. Village Water and Sanitation Committee or Pani Samiti 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 Action Plan (VAP), which is to be prepared by the village community/Pani Samiti with the help of NGOs.
- Village Action 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 VAP 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 Village action plan.
- Based on all the VAPs of the districts, the District Water Security Plan will be prepared.
- Under the District Water Security Plan, all invillage work will be carried out by the Gram Panchayat or its sub-committee i.e. VWSC/

- Pani Samiti, whereas bulk water transfer, inter-village distribution, 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 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's Goal towards achieving drinking water security to every rural household by 2012.

Under the broad goal set by each State, 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, States/UTs shall prepare 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 funds available from different sources and working out the Central fund based on the allocation criteria mentioned in para 11.5 (plus 10% extra) CWSAP will have to be prepared by each State.
- Each State will have to submit to RGNDWM the CWSA Plan by Feb every year, through online IMIS.
- After consultation with each State during Feb and March of the current financial year funds to be released in April to States for the next financial year.
- The CWSAP will be prepared in a participatory manner and after carrying out detailed SWOT analysis.
- Under the CWSAP, detailing will be done based on the Memorandum of Understanding (MoU) signed between the RGNDWM and the State.
- The progress made and achievements in the previous year will be basis of the CWSAP 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, and after finalization, the same will be furnished online to the RGNDWM, by February every year.
- 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, nonutilisation of assets created, etc.
- The Action Plans should indicate the following aspects also:
  - a) Target of coverage of uncovered habitations with their names, block, district, etc. with reference to census village code from the appropriate survey list in the website. This should be submitted on line;
  - b) Steps taken by the implementing agency for functioning in a mission-mode,
  - c) In-house-plan for HRD and how these have bearing on the projects;

- d) The activities to be taken up under submissions, magnitude of the problem, steps to tackle it, the organizational structure for handling the sub-missions, details of IEC activities;
- e) Detail of the Village, District and State Level monitoring and evaluation mechanism with special emphasis on beneficiaries satisfaction of the service;
- f) Population to be benefited indicating separately the SC/ST population; and,
- g) Clean environment around drinking water sources including hand pumps, proper O&M and involvement of the Panchayati Raj Institutions;
- h) Names and number of GPs, to whom water supply assets will be transferred;
- Based on the National Sector Policy and State Specific Sector Policy a Memorandum of Understanding between (MoU) is to be signed between the State Government and the Department of Drinking Water Supply, Ministry of Rural Development, Government of India. A draft MoU is given in **Annexure X**.

### 15. 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 with 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 latest by January 2009.
- For integration of data with other Department, like health, water resource, education, Panchayati Raj, census etc it is important to have the common minimum denominator 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 have to be sent online with immediate effect.
- For this the States are required to reverify the list of habitations entered online, and indicate the status of coverage in term of covered or not covered. If not covered States should indicate the reason as due to quality or quantity. This process should be completed latest by March 2009.
- Water quality and quantity of every delivery point to be tested by the community periodically as per the NRWOM&S guideline.
- The test results are to be fed into the software developed by RGNDWM on a GPS hand held device to be provided under MIS and Computerization programme, and synchronized with the central IMIS database.
- These data along with action taken by the appropriate agency will be monitored online through the website.
- The revised format for submission of progress is attached as Annexure
- Release of fund w.e.f. 1.4.2009 will be made based on the data furnished online by the States. This is non-negotiable.

## 16. Planning

- 16.1. Based on the 'National Sector 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.
- 16.2. 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.
- 16.3. 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.
- 16.4. While planning all habitations are to be linked to census village and cumulative population on the main village and other village 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.
- 16.5. 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 National Expert Groups (NEG) 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.
- 16.6. Once the annual shelf of projects (DPRs) is finalized it is to be placed in the State Level Scheme Clearance Committee (SLSCC) meeting for approval. The SLSCC 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.
- 16.7. 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.

16.8. The approved annual shelf of projects (DPRs) approved by SLSCC are to be entered on line (IMIS) as per the prescribed abstract proforma. The Projects are to be linked to the habitations to be covered during the particular financial year.

## 17. Flow of Funds

- 17.1 The State Water and Sanitation Mission (SWSM) shall select a Bank branch with internet connectivity at the State Headquarters, of any Public Sector Bank or Institution based Bank for maintaining the two accounts namely Programme Account, and Support Activities Accounts under the National Rural Drinking Water Programme. These shall be saving accounts and once selected, the Account shall not be changed to any other Branch or Bank without concurrence of RGNDWM.
- 17.2 There will be a written undertaking from the Bank that it will follow the Guidelines

- of Government of India for payments from the RGNDWM Funds. The concerned branch will maintain Internet connectivity and enter the data into the relevant module of the Online Integrated Management Information System (IMIS).
- 17.3 The SWSM will communicate to the RGNDWM, Ministry of Rural Development the details of the Bank branch IFSC code and the Account numbers. The Ministry of Rural Development shall release the programme funds and sector support funds respectively into the programme and support accounts.
- 17.4 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.
- 17.5 The State Government shall credit the **Programme Account** with funds as per the funding patter indicated in para 9.3 of the guideline in order to meet works





- schemes been implemented. Expenditure under support fund should be made strictly as per the item of activities and hardware specified in the respective support activities guidelines.
- ii. NRWS **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 RGNDWM.
- 17.7 A tripartite Memorandum of Understanding will be entered into between the Bank, SWSM and the RGNDWM wherein the parties would agree to abide by the provisions of the Guidelines. In particular, the Bank will

The RGNDWM may, from time to time, issue such directives as necessary for smooth flow of funds and effectiveness of the Programme.

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. The mode of the Programme and Support activities expenditure will be regulated as

17.6

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/

- agree to abide by the instructions issued, from time to time, by the Ministry of Rural Development/Rajiv Gandhi National Drinking Water Mission (RGNDWM) regarding the operation of the Accounts.
- 17.8 The RGNDWM may, from time to time, issue such directives as necessary for smooth flow of funds and effectiveness of the Programme.
- 17.9 The Accounting System, to be prescribed by the RGNDWM, 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.

Money accruing as Interest credited in the Programme Account will be credited to the same account. The expenditure out of this interest amount will be guided by the instructions/guidelines to be issued by the Ministry of Rural Development/
RGNDWM 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.

## 18. Release of Funds

17.10

- Every year, in the beginning of the financial year allocation of funds under different components of NRDWP will be allocated to 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 have drawn the 2nd installment in the previous year. For Support Fund 100% grant in aid will also be released in two installment 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 XI) with progress reports and returns;
- b) Utilization of 60% of the available resources under Programme Fund and corresponding expenditure under the State sector (unutilized 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 (in the prescribed Proforma as at Annexure XII) 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%

- h) Release of fund under **Support Fund will be done in two installments** and the 2<sup>nd</sup>
  installment release of fund will be based
  on submission of activity-wise Physical
  and Financial progress, Utilization
  Certificate. **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 fund released in the previous year under NRDWP.
- Excess expenditure in the previous year, if any, will be deducted at the time of release of the 2nd installment of funds;
- k) State/UT have to ensure that online reporting is done;
- 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 unutilized 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 extend 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 have 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 State Governments/UT Administration and or its agencies will not levy any centage charges on the NRDWP funds provided to them.
- u) The funds provided under NRDWP will be used to meet the expenditure on approved schemes and O&M as prescribed under the guidelines.
- v) 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.
- w) 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.
- 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 RGNDWM.
- y) 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.

## 19. Audit

- 19.1 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.
- 19.2 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.
- 19.3 Both the State level Agency and the PHED must provide all relevant information to District level Vigilance and Monitoring Committees.

## 20. Monitoring

#### 20.1. 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 RGNDWM.
- 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 RGNDWM 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 RGNDWM and it shall not be modified at any level in the States; any requirement or

- suggestion for change shall be intimated to the RGNDWM.
- The State Government should provide necessary manpower, space and facilities to set up the Computer Hardware at the subdivision, 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 constant updating and accuracy of data relating to the progress of works, record of quality control tests. In case of continued 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 to the orders issued by the Ministry of Rural Development and regular meetings of the same should be held.
- The State Government should carry out regular monitoring and evaluation through STA and national Expert Group of all the activities viz., RWS project with major emphasis on Sustainability projects (100% GoI funded), software activities and submit the report to SWSM/SLSSC/PHED for carrying out mid-corrections if required. This should be done at least once in every year and preferably biannually.



- The Goals set by each State to attain sustainable Water Security of every rural household in the State is in dynamic state. Because of many factors including natural calamity the water security plan put in place may get disturbed and unattainable. The water quality, quantity, reliability of supply status may change.
- As such constant review, analysis and evaluation of the CWSAP prepared by respective States is required to ensure that the delivery mechanism and the water security plan at the village/household level remains functional.
- The RGNDWM will review the implementation by deputing specialists/ experts as well as in the review meetings.
- During the 11<sup>th</sup> Plan period continuous improvement is required to be put in place and stabilize the State specific Water Security Plan and ensure 24 hours water supply to

Many factors including natural calamity the water security plan put in place may get disturbed and unattainable. The water quality, quantity, reliability of supply status may change.

## 20.2. National and State Monitoring and Review Committee

Consisting of experts drawn from National Technical Support Agency and national Expert Groups will appraise the State and District Water Security Plan.

• The committee may suggest changes, which will be taken into account while finalizing the State and District Water Security Plan, and build-in the mechanism to ensure sustainability of the Water Security Plan which will be approved by the State Water and Sanitation Mission and will be taken up for implementation.

every rural house hold so that by the 12<sup>th</sup> Plan period this could become completely functional.

# 21. Community Monitoring, Social Audit and Regulation

## 21.1. 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 marginalized/poor groups whose voices are rarely heard;
- Every month 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.

### 21.2. Regulation

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.

Also, this NRWP framework encourages setting up of Bulk water utilities at various levels and Gram Panchayats 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 quality continuous 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, State governments should constitute a committee headed by the Chief Secretary to look into the issue of setting up independent regulatory agencies which could oversee the issues of pricing, terms of engagement between the bulk water utility and local governments, protecting the catchments of local water supply through control of activities that could be performed in these catchments.

## 22. Exit Policy

It is expected that the objectives of establishing enabling environment to attain source and 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

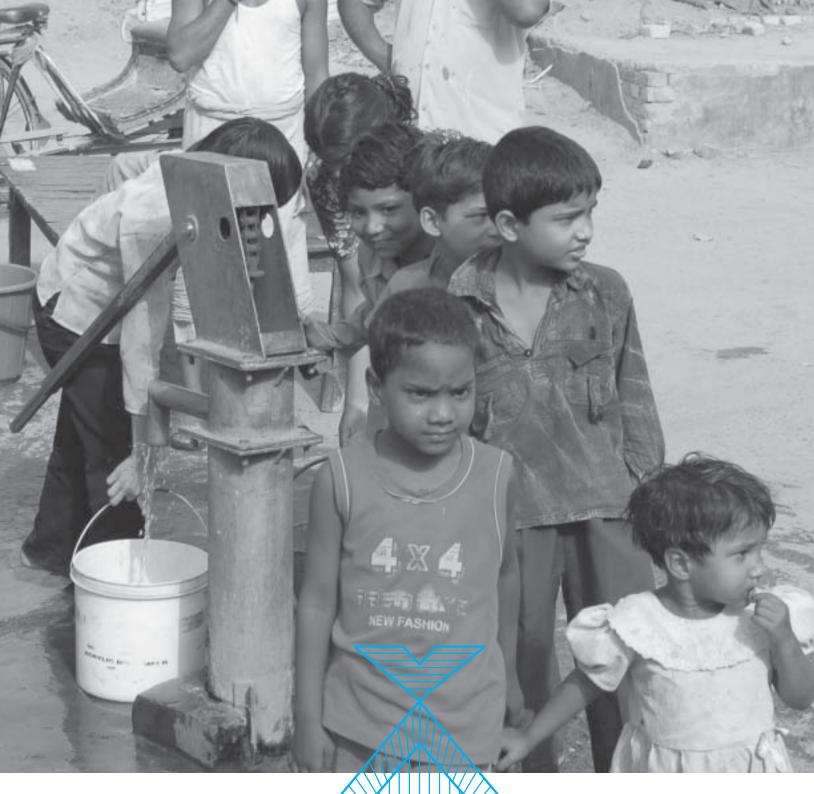
the PRIs as in terms of quality and quantity. The level of water supply needs to enhance from basic minimum need to higher level of supply and upgrade from supply through spot sources and street stand post to house connection. The other aspect of the Exit strategy is as follows:

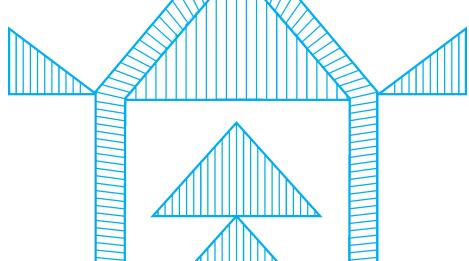
- An important resource management objective to ensure adequate quantity and quality of water resources for domestic needs must also be addressed.
- As a self-regulatory mechanism, identify criteria and indicators and setting benchmarks of goals/achievements in the form of Memorandum of Understanding (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.
- On the successful implementation of District Water Security Plan, the States/UTs will take upon the responsibility to fund the replacement.
- The RGNDWM may provide bulk grants to PRIs for successful management, operation, maintenance, augmentation, replacement of water supply systems and sources.
- In order not to lose any time, States/UTs shall initiate activities for universalization of the sector reforms/Swajaldhara principles.
- Finally at 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.
- The State/its agencies/water utilities may handle the bulk transfer, treatment and intervillages distribution of the drinking water.

# 23. Flexibility in the Implementation of the Programme

The State Government may constitute a high level committee under the chairmanship of the Chief Secretary or any other senior officer of the State to review the pace and progress of the programme at the state level. The Committee may have as Member' Secretary belonging to the Departments of Water Supply, Rural Development dealing with Panchayati Raj institutions, Sanitation programme, Agriculture, Finance, Science and Technology and Health. The Committee will have power to include other secretaries/Departmental Heads as considered necessary for speedier and better implementation of the programme in the state. Technical Experts from Academia, Scientific and Technical institutions, CSIR laboratories etc can also be co-opted as required by the Committee. The Committee can also look into any operational problem arising due to any specific provision mentioned in the Guideline and make suitable modification. The modifications as suggested by the State level Committee will however be subject to the following conditions

- Such modifications will not change the basic structure of the scheme and any financial parameter e.g., amount of fund flow to the states, allocation criteria for the states etc.
- A copy of such amendment/modification will be required to be submitted to the Department of Drinking Water Supply for perusal and comment, if any, within 15 days of such amendment/modification.





#### Annexure I

## Norms for Providing Potable Drinking Water in Rural Area

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 is.

Purpose	Quantity (LPCD)
Drinking	
Cooking	5
Bathing	15
Washing utensils and house	
Ablution	10

#### Annexure II

## Guidelines on Sajal Gram Puraskar

## 1. Background

About 80% of rural drinking water sources are based on ground water. Many of the piped water supply schemes are based on single source. With rapid decline in ground water due to excess withdrawal by competing users and inadequate knowledge on water conservation and harvesting, State Governments are reporting more and more habitations slipping back from the fully covered status. Therefore the strategy adopted by the Department is shift the focus of 80% ground water based systems to 20% systems and the remaining by combination of roof-water harvesting, ground water recharge and surface water harvesting as conjunctive use. The move apparently shifts from single sources to sustainable multiple sources so that drinking water security is ensured.

In various Workshops conducted the State Governments have been suggested to draw up village-wise, block-wise and district-wise drinking water security plans based on water demand, budgeting and availability. Further, catchment protection and environmental sanitation are also key components of drinking water security plans so as to avoid/reduce contamination like nitrates from fertilizers and sewage pollution and bacteriological contamination through leaching. Efforts are also being made for allocating sizeable portion of funds for creating drinking water security through conjunctive use of water.

Many State Governments have reported success stories on ground water recharge, roof-water harvesting and surface water collection. For example, in Gujarat, through various programmes, 87,179 check dams, 35, 479 boriband and 1,71,400 khet-talavadi (farm ponds) have been constructed for ground water recharge and dilution of contaminants. TWAD Board has informed that during the last 7 years, the State has implemented and taken up 3,585 recharge structures which have resulted in rise of ground water levels from 0.5 m to 12 m in the vicinity of recharge structures. Also, roof-water harvesting has been made compulsory for all government buildings in Tamil Nadu. In Karnataka, roof-water harvesting is implemented by an organization called BAIF in fluoride affected habitations of Kolar and other 2 districts. Andhra Pradesh has enacted the AP Water, Land and Tree Act in 2003, which specifies that permission is required to be taken to drill a bore hole drilling is within 250 m radius of a drinking water source. Tie up with NGRI is being done for creation of water sanctuary. Restoration of one water tank in each village under National Rural Guarantee Act is proposed to ensure multiple sources of water and lead to drinking water security. Mizoram and Lakshadweep are amongst the pioneers in roof-water harvesting structures. Roof-water harvesting has also started in other States like Kerala, Bihar, Madhya Pradesh, etc. Maharashtra has come up with a unique methods of unconventional blasting like bore blasting, stream blasting, etc. in order enhance the percolation rate of soils, enhance the aquifer capacity and/or create a secondary aquifer for ground water recharge.

The following issues may be addressed/considered for ensuring sustainability of rural drinking water sources:

- Water budgeting, demand, supply, conservation, costing, pricing are required.
- Sub-surface storage of water specific to drinking water sources
- Roof-water harvesting, either individual or community based, to provide adequacy of drinking water sources during rainy season and rest the ground water aquifers for recharge as well as dilution of contaminants.
- Stand alone systems for bacteriological contamination removal at the consumption point after ensuring sustainable availability of surface water
- Drinking water sources could be seen as "Protected sources" like Reserved Forests.
- Appropriate Media Campaigns for clean and safe water
- New and renewable energy sources could be promoted
- Participation of financial institutions including microfinance and NGOs in ensuring sustainable rural drinking water supply systems.
- PRIs could initiate action against all polluters of protected drinking water sources on the pattern of reserve forests, endangered species of animals etc.
- Adopt dynamic norms which can continuously encourage water security.
- Models of drinking water supply based on cost of production of water, encourage affordability of water using differentiated tariff mechanisms sensitive to gender, equity and vulnerability issues
- Technologies by itself cannot provide Sustainable systems unless the issue of source is addressed.
- Promote technologies for safe disposal of extracted contaminants

"Nirmal Gram Puraskar", the incentive award provided to achieve open defecation free environment in PRIs has resulted in huge motivation amongst the rural people and the incentive award is taking the shape of Campaign mode with number of awardees increasing from a mere 40 in 2004-05 to about 5,000 in 2006-07. Similarly, to incentivise the Gram Panchayats to establish "drinking water security" at 100% time. Government of India launches the award scheme

called "Sajal Gram Puraskar" from the year 2008-09. It is felt necessary that this award/Puraskar necessitates triggering mechanism in the rural communities for drinking water security, quality, environmental and personal sanitation, health and hygiene habits.

## 2. Name of the Award

The name of the incentive award scheme is "Swajal Gram Puraskar".

## 3. Eligibility Criteria

The eligibility criteria for the Award will be as follows:

- In order to become eligible to Sajal Gram Puraskar, the concerned Gram Panchayat/ Block/Zilla Panchayat must have received Nirmal Gram Puraskar (NGP). Panchayats who have not received NGP status are not eligible for Sajal Gram Puraskar as chances of bacteriological contamination of drinking water sources is not eliminated.
- A Gram Panchayat/Block/District which has achieved Drinking Water Security with the aim of Drinking Water "Access to safe and sustainable drinking water source for all during the last 3 years". If in-situ treatment plants are used, there should proper disposal of sludge/wastewater in an environment friendly manner. Wherever the PRIs are not in place, the concerned Revenue village/Block/District Administration would be considered for the Award till the time, the PRIs are put into place.
- Absence of incidence of any water borne diseases during the last 3 years (data to be obtained from nearest PHC) and community awareness about linkages between water quality and health issues
- Community initiative for achievement of drinking water security in terms of quantitative available (40 lpcd), quality water (no chemical and bacteriological contamination) and sustainability through conjunctive use of ground, surface and roof

water harvesting, ensuring minimum leakages in the distribution of drinking water, adoption of wise-water management, water budgeting and solid-liquid waste management issues. More weightage to be accorded if Women self help groups/women participation is ensured.

- The VWSC or User Committee has to be in place in the Panchayat.
- Equity in access to drinking water to all social and income groups including vulnerable sections like SC/ST/OBC, disabled persons, widows, etc.
- Sanitary protection of all drinking water sources and local catchments.
- Monitoring the water levels for quantity and quality improvement, changing budgets for water in different seasons
- Promoting/adopting new and renewable energy sources and/or non-utilization of electricity power
- Traditional wisdom of the community for water recharge/harvesting and willingness to adopt new technologies
- Meeting the minimum 50% cost of O&M either through structured tariff plan, proper utilization of 12<sup>th</sup> Finance Commission/GP funds.
- Water Quality Monitoring of all drinking water sources by the community using simple to use filed test kits and confirming the same with district/other laboratories.
- Convergence of water conservation issues with activity of other departments for drought proofing measures (NREGA, DDP, DPAP, MOWR, MoA, MoEF, etc.)
- · Achieving "Nirmal Gram Puraskar" means the

GP has attained environmentally safe sanitation status.

## 4. Selection Procedure

The general procedure for the selection of the Gram Panchayats/Blocks/District will be based on the following principles:

- A Selection Committee under the Zilla Panchayat would scrutinize all applications received from the Gram Panchayats with respect to the weightage/marks listed above and forward the same to the State Government
- State Governments should evaluate the proposals appropriately and forward the same to the Government of India.
- For verification of the reports received from the State Governments, Government of India would engage independent evaluator(s) or Multi-disciplinary teams to assess the status of drinking water security achieved by the Gram Panchayat/Block/District.
- There will be a National Committee on the Sajal Gram Puraskar constituted by the Department of Drinking Water Supply, to draw up the criteria for annual selection of the respective PRI for the Puraskar.

## 5. Incentive Pattern

The incentive pattern will be based on the population criteria and will be as follows:

upees		

S. No	Particulars	Gram	Panchayat	Bl	ock	Di	strict
	Population	Upto 2000	More than 2000	Upto 50,000	More than 50,000	Upto 10 lakh	More than 10 lakh
2	Cash incentive in Rs lakh	1.00	2.00	5.00	10.00	20.00	30.00

## 6. How the Incentive can be Used

The incentive can be used by the PRI for improving the drinking water facilities and for maintenance/improvement/augmentation of drinking water sources in their jurisdictional area.

## 7. Implementation of the Scheme

The award scheme will be implemented every year starting from year 2008-09. Some prominent date like the World Water Day i.e., 22<sup>nd</sup> March will be the date of presenting these awards at New Delhi.

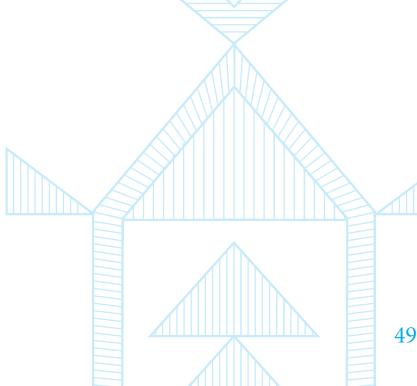
## 8. Source of Funding

Funds under IEC under the Water Supply Subhead under NRDWP would be utilized for the purpose of awards.

## 9. National Level Selection Committee

A National level Selection Committee would be formed for finalizing the selection procedure, incentive amount and for the other administrative and coordinating activities regarding the Award function to be held. The constitution of this Committee will be as follows:-

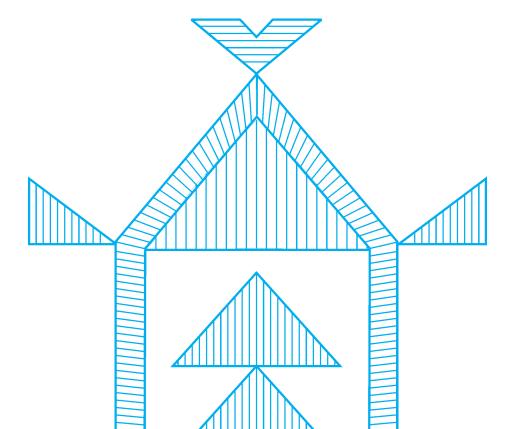
- ) Secretary (DWS) Chairperson
- 2) AS & FA Vice-chairperson
- 3) JS (DWS) Member
- 4) JS (NREGA) Member
- 5) Chairman, CGWB Member
- 6) Dr. Sunita Naraian, Member CSE
- 7) Dr. Rajendra Singh, Member TBS
- 8) Mr. Dirk Walther, Member Anna University, Chennai
- 9) Dr. K.D.Sharma, Member Director, NIH, Roorkee
- 10) Additional Advisor Member
- 11) Director (RWS) Member
- 12) Asstt. Adviser (WQ) Member
- 12) Director, NRHM Member
- 13) Representative from Member CPCB
- 14) Representative from Member CSIR laboratory
- 15) Director/DS in-charge Member-Secretary of Sustainability
- 16) Other Technical Permanent invitees Advisers of DDWS



## 10. Evaluation Criteria for Selection

Sl. No.	Criteria	Marks/Weightage
1	Availability of safe and adequate drinking water (40 lpcd) on equitable and sustainable basis catering to all sections of the society during the last 3 years	Total = 40 marks Sustainability through surface water or ground water recharge = 25 marks Sustainability through roof-water harvesting = 15 marks
2	Absence of water borne and water-based diseases during the last 3 years	10
3	Community initiative in water harvesting/recharge and budgeting for water, understanding the availability scenario during different months including	
	revival of traditional ponds	10
4	Sanitary protection of all drinking water sources and catchments	5
5	Monitoring the water levels for quantity and checking water quality through field test kits and district laboratories	5
6	Use of new and renewable energy sources and/or non-utilization of electricity power	5
7	Recovering atleast 50% cost of O&M either through structured tariff plan and proper utilization of 12 <sup>th</sup> Finance Commission/GP funds for taking up 100% O&M	10 Through TFC = 5 marks Through any tariff plan = 5 marks
8	Convergence of water conservation issues with activity of other departments for drought proofing measures (NREGA, DDP, DPAP, MOWR, MoA, MoEF, etc.)	5
9	Achieving "Nirmal Gram Puraskar" for environmentally safe sanitation status (This is compulsory to become eligible for Sajal Gram Puraskar	10
	Total	100

In order to quality for the Puraskar, the Gram/Block/District Panchayat should obtain at least 75 marks out of 100 as tabulated above.



## Application Form for Sajal Gram Puraskar

(For those Gram/Block/Zilla Panchayats who have achieved drinking water security in the rural areas of the Country)

1.	Name of the Gram/Block/Zilla Panchayat (s):
	Name of the President/Chairman of the Panchayat (s):
	Full postal address of the Panchayat :
	Phone No., Fax No., E-mail :
	Population of the Panchayat :
	Composition of Village Water and Sanitation Committee
	•

- 7. What was the condition of the Panchayat before 3 years
  - (a) No. of hand pumps
  - (b) No. of spot sources
  - (c) No. of local/traditional water bodies
  - (d) Piped water supply scheme
  - (e) Ground water depth (m)
  - (f) Aquifer condition
  - (g) % of households having toilets and using them
  - (h) Vicinity of agricultural fields to the nearest drinking water source
  - (i) Per-capita drinking water supply provided
  - (j) Quality of drinking water (specify for arsenic, fluoride, iron, nitrate, salinity, pH and MPN coliforms )
  - (k) IMR and MMR/Morbidity
  - (1) % of children attending schools (specify for girl child)
  - (m) Average household expense per year on medical treatment
- 8. What interventions were planned to improve drinking water sustainability and creating awareness for safe drinking water and sanitation. Also, elaborate various discussions, meetings held, community mobilization, role of women SHG, NGOs and other stakeholders who had actively participated
- 9. How these interventions have been carried out for achieving drinking water security, implementing mechanism, time frame and source of funding. Clearly define what role was played by the implementing agency in-charge of providing safe drinking water.
- 10. Present scenario (as of date)
  - (a) % use of ground water, surface water and roof-water in a year
  - (b) Whether adequate ground water, surface water and roof-water is available during the planned months
  - (c) Whether water demand and budgeting is done during different seasons of the year and if so, details thereof

- (d) What is the catchment protection works conducted for contamination control in drinking water sources
- (e) Quality of drinking water in each of the drinking water sources selected.
- (f) Whether alternate safe drinking water supply is provided by the State implementing agency. If so, per-capita supply level and quality of water supplied?
- (g) Current status of water borne and water based diseases prevalent?
- (h) What is the community initiative taken up to take care of the system properly?
- (i) % of households having safe sanitation facilities and using them
- (j) What type of solid and liquid waste management adopted?
- (k) Whether the ground water level is monitored if so, specify the frequency of monitoring and whether any log book is maintained to record the measurements
- (1) Whether the Panchayat is using FTK provided by the State implementing agency? If so, % of water samples tested positive for contamination and referred to +2/degree college/district water testing laboratory/PH laboratory/any other private laboratory during the last one year?
- (m) How many such samples (in %) were confirmed positive by the district water testing or any other laboratory during the last 3 years?
- (n) What remedial action is taken in such cases?
- (o) Whether any solar/bio-gas/biomass/bio-fuel/wind or any other new and renewable energy systems are being used in drinking water supply system?
- (p) Whether traditional wells/ponds have been repaired/renovated? If so, involvement of community may be explained
- (q) Whether any water tariff plan is being levied for collection of water charges. If so, % of expenses being recovered and use of XII Finance Commission funds for O&M of water supply systems
- (r) Whether any convergence activity occurred in polling up funds from NREGA, DDP, DPAP, Dug-well recharge scheme or any other Central/State schemes?
- (s) Whether the GP has achieved Nirmal Gram Puraskar? If so, specify the year.

## Certification of Gram Panchayat

I certify that safe drinking water in adequate quantity is made available	to all sections of the community
during the last 3 years and the incidence of water borne/water based dis	eases has been controlled. Also,
Panchayat, has been awarded Nirmal Gram Puraskar aw	ard in the year
	(Signature of GP Sarpanch)
	Date:

### Verification

The details provided above by the GP have been verified and found to be correct.

(PHE official) (GW official) (BDO) (Health official) (at the block level to be identified by ZP/DWSM)

- 11. Recommendation of Zilla Panchayat
- 12. Recommendation of concerned State Government Department in charge of rural water supply

## Report Card of the Review Mission

Constituted by the Department of Drinking Water Supply, Ministry of Rural Development, Government of India

Name	of the GP inspected :	
Name	of Block District and State :	
Period		
		=
Sl. No.	Criteria	Marks/Weightage awarded
1	Availability of safe and adequate drinking water (40 lpcd) on equitable and sustainable basis catering to all sections of the society during the last 3 years  • Measures taken for ground/surface water recharge  • Measures taken for roof-water harvesting	
2	Absence of water borne and water-based diseases during the last 3 years	To be checked from PHC/Health Deptt. For acceptable level
3	Community initiative in water harvesting/recharge and budgeting for water understanding the availability scenario during different months including revival of traditional ponds	
4	Sanitary protection of all drinking water sources and catchments	
5	Monitoring the water levels for quantity and quality improvement, changing budgets for water in different seasons	
6	Use of new and renewable energy sources and/or non-utilization of electricity power	
7	Recovering atleast 50% cost of O&M either through structured tariff plan and proper utilization of 12 <sup>th</sup> Finance Commission/ GP funds for taking up 100% O&M  Recovery of atleast 50% through TFC  Additional Recovery of O&M by any tariff plan	
8	Water Quality Monitoring of all drinking water sources by the community using simple to use filed test kits and confirming the same with district/other laboratories.	
9	Convergence of water conservation issues with activity of other departments for drought proofing measures (NREGA, DDP, DPAP, MOWR, MoA, MoEF, etc.)	
10	Achieving "Nirmal Gram Puraskar" for open defecation free and environmentally safe sanitation status (Compulsory)	

Signature of authorized signatory

Place : Date :

Total marks awarded out of 100

## View of Department of Drinking Water Supply

The proposal is examined and qualify/does not qualify for award of Sajal Gram Puraskar

If the proposal is not qualifying, reasons thereof: 1) 2) 3) (strike off whichever is not applicable)	
	(Signature of concerned Area Officer)
	Date :

#### Annexure III

## 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 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 100% grant—in aid 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 12<sup>th</sup> Finance Commission funds are to be utilized and basic principles are to be adopted. Under this component preparation of village water security plan is the mandatory.

For taking up sustainability projects it is to be ensured that the existing and proposed rural drinking water sources are directly recharge and for that a 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 sustainability projects under rural drinking water supply programme. As also the publication of Department of Drinking Water Supply, GoI namely (i) Bringing Sustainability of Drinking Water System and (ii) Convergence of sustainability projects (web site:http://ddws.gov.in under icon Publication 2007-08) may be referred.

## 3. Definitions

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, exclusive to rural drinking water schemes. The main aim of providing sustainability of drinking water schemes is that such schemes will not slip back from universal access of safe drinking water to the community throughout the design period of schemes.

Any recharging structure meant for overall management of water resources and does not directly recharge the drinking water sources; do

not come under the purview for funding under the Sustainability component of this Programme.

Conjunctive use of water is 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 groundwater aquifers during monsoon. This could even dilute the contaminants considerably over a period of time.
- Many structures provide both for groundwater recharge and surface water availability
- Store surface water as per terrain conditions
- Adopt roof-water harvesting on 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. 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 TFC and O&M funds under Revised RWSP 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

# 5. 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

# 6. 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
- Universal access to population to safe drinking water in adequate quality and quantity under all schemes taken up this component.
- Reject management issues to be addressed properly so that the contaminants do not re-enter into water, environment or food.

# 7. Eligibility Criteria for Funding under Sustainability Component

• Capital cost for any recharging system/surface water impounding structures should be met

- from National Rural Employment Guarantee Scheme (NREGS) budget.
- Desilting of ponds to be done only with NREGS funds
- Capital cost of conversion of existing village ponds into recharge/collection structure should be restricted to material component only.
- Capital cost of roof-water harvesting structure should be through 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 SLSC.
- Cost of constructing roof of the house of any nature for roof-water harvesting is not admissible under the Sustainability component.
- The role of DDWS will be to provide funds to the State Governments on the basis of a fixed inter-State allocation criterion as defined under the Revised National Rural Drinking Water Programme guidelines. Sustainability component of the drinking water supply systems should be such that it is easy to operate, maintain by the community/Gram Panchayat/Water User group.

## 8. Suggestive List of Ground, Surface and Roof-water Harvesting Systems/Structures

- Flood recharging method (only for regional drinking water systems)
- Gully plugs
- · Recharge Pit
- Contour trench/bund
- Semi-circular treaches 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

- Oorany 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.

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

#### Annexure IV

# 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, the workshop had also recommended close collaboration between drinking water supply agencies and Health authorities all over the country.

The indiscriminate over-drawl 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 changes is also affecting water resources in all countries resulting increase in diseases such as cholera, typhoid, malaria and dengue which are basically water 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 are 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 3-4 million people at risk from arsenic poisoning and 90 million people are exposed to fluoride contamination. The indiscriminate use of fertilizers and insecticides along with unscientific usage of singly pit latrine and disposal of domestic waste water, have further contributed to the deterioration of quality of ground water.

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

# 2. Framework for Implementation (2004-2008)

The evaluation of the programme implementation during the last four years by different agencies reveled 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:

- 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 no. District-3 nos. and Block-2 nos.
- 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 and deposit in the VWSC accounts with separate ledger.

## 3. Need for Change

- With the recent approval of the "Modified National Rural Drinking Water Programme" by the Government of India there is 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, in which it is 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 households is met.
- Water supply for drinking and cooking should maintain high quality as per the prescribed potable 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)
- For ensuring quality of water Bureau of Indian Standard (BIS) IS:10500 was 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 adopted 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 link the identification of a water quality problem with water safety solution. They include both water quality testing and also sanitary inspection to determine appropriate control measures. They are quality assurance tool that ensure 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 160 lakh samples to be tested annually with a norm of one sample per 200 populations.
- At present The State Rural water Supply Departments have Skeleton Water Testing Laboratory at the Districts only and it is practically impossible to test all the drinking water sources of the villages in the district in these laboratories. In some of the districts the horizontal distance may be more than 100 kilometers and in hilly area and in difficult terrain it may take 6-8 hours of travel.
- Most of the States have mentioned that there the test results of the Potable Water Testing Kits are highly unreliable even in term of assessment to be made as "YES" or "NO". H<sub>2</sub>S vials/strips are equally unreliable.
- Refilling of Kits, honorarium to 5 village level functionaries, GP coordinator, expenses for disinfectants etc., is totally dependant on 'Community Contribution' which is not happening anywhere as such the programme is not taken off.
- 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 existence facilities at the sub-divisional level grossly affect the testing and verification of water quality data and actions/intervention to be initiated based on confirmed data

## 4. Proposed Strategy

- To have authentic water quality data for initiating action it is essential to have a basic Water Testing Laboratory at the Sub-Division Level 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-division Laboratory and primarily biological test of all sources can be tested at 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 persons preferably women from VWSC (elected at Gram Sabha similar to NRHM guideline -para 55) under the control of GP and paid appropriately on the monthly basis for the specified activities. The person selected will be designated as "JAL SURAKSHAK" and will be provided with a batch. The State Government may decide the mode of payment to "JAL SURAKSHAK", which is to be approved in SLSSC. Since ASHA of NRHM is also responsible for community action on prevention of water and sanitation -borne diseases the VWSC member selected would work in close coordination with ASHA.
- In addition to the District Level Water Testing Laboratory it is proposed to set up Water Testing facility at the Sub Division offices of the PHED having facility for carrying of all basic water quality parameters including biological parameters. The laboratories will have facilities of testing the following parameters viz.
  - 1. P. H
  - 2. Total Hardness
  - 3. Iron
  - 4. Chlorine demand
  - 5. Residual chlorine
  - 6. Nitrate
  - 7. Fluoride and Arsenic where ever it has been identified and detected

- 8. In addition to above tests there will be provision for bacteriological analysis of water to determine if there is any faecal contamination. It has been envisaged that a blanket test of bacteriological contamination of all sources will be conducted for MPN counts in all the Subdivision Laboratory.
- The required equipments, glassware, chemicals etc including its cost implication is indicated in Annexure V- A
- House hold data collected and water sample of drinking water source collected are to be tested verified at the Sub-division level Laboratory and PHC (for biological parameters).
- Consolidated at the District level to be entered on line to Mission data centre.
- All interventions and actions for dealing with physical (turbidity) and biological contamination of sources are to be taken care at the GP and Sub-division level.
- IEC and HRD activities needs to be linked with CCDU
- Broad role and responsibilities of VWSC/ ASHA members are indicated below:

## 5. Approach

#### At the National Level

- The Department of Drinking Water Supply (DDWS) to monitor the entire programme National Rural Drinking Water Quality Advisory Committee to advise DDWS for planning and supervising the implementation of drinking water quality monitoring & surveillance in the States
- Establishing a well structured information flow between Government, Technical Institutes, District Laboratories, Sub-Divisional Laboratories and grassroot functionaries.

### At the State, District and GP Level

- Funds will be provided to the States for setting up Water Testing Laboratories at the Sub-Division level.
- Taking up State and Region specific IEC activities involving PRIs, Co-operatives, Women Groups, SHGs, and NGOs by CCDU/

Sl. No.	Role of VWSC member	Role of ASHA (NRHM)
	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
	Test all the sources by potable testing kits	Carry out sanitary inspection of all the sources
	Collect sample for testing and transfer at 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
	Record detail of water supply sources and system in the village/GP	Record keeping of all water and sanitation disease related data
	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 rural supply activities	Any other task assigned by GP President related rural sanitation activities

- SWSNM.
- HRD-Training to be imparted to district, subdivision, 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.
- Testing of 100% of the sources at subdivisional laboratories both for biological 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.
- 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 be State Governments during the periods of natural calamity and disasters.
- Identification/Registration of safe drinking water sources in all rural habitations (Gram Panchayat wise).
- Bacteriological parameters to be tested for all the water samples, 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 and whereas the physical and bacteriological contamination to be reported and tackled at the GP/District/State level.
- Water sample collection, household survey and sanitary inspections of drinking water sources by village level workers from VWSC/GP.
- IEC and awareness generation by village level workers from VWSC/GP using Field Testing Kits.

## 6. Funding

 Under the programme, 100% funding would be provided strengthening of district level laboratories, setting up of sub-divisional laboratories, data reporting cost, stationery

- cost, honorarium to GP level VWSC workers, 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.
   NHRM and 12<sup>th</sup> Finance Commission funds to explored and utilized for this purpose.
- The State Water and Sanitation Support Organization (SWSO) needs to prepare a master plan for setting up the WQM&S programme and also Annual Action Plan indicating year wise financial implication which is to be approved by SLSSC.
- O&M of the laboratories cost of disinfectants, minor remedial expenses, annuity and mobility, will be covered by the fund available from NHRM, 12<sup>th</sup> 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, based on criteria like number of drinking water sources, number of GPs, Block Panchayats, district, total rural population, etc in respective States.
- All IEC and HRD activities under WQM&S programme is to be taken up under 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 of the entire programme may be decided by the respective State/UT Govt.

## 7. Illustrative List

- Training of Members of PTIs/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
- IEC strategy which may include
  - Inter-personal communication (door to door contact)
  - Audit-visual publicity
  - Hoarding and wall writing etc.
  - Slogans, picture frames, group meetings, street play, participatory rural appraisal and exhibition may be used as tools.

A suggested media and communication strategy is given in CCDU guideline.

 Training of school teachers at village, bock, district level, Health workers, Anganwadi workers for promotion of water quality monitoring & surveillance.

# 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.
- The inspection should be made to check and ensure that the water quality monitoring &

- surveillance programme has been done in accordance with the norms and also whether 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 a Gram Panchayat has been displayed transparently in 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 put on line. 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.
- Hard copies of the reports are to be submitted at different levels as per the existing norms.

## 10. Annual Audit

The district implementing agency should get the accounts audited annually by a Chartered Accountant and submit the report to the State Govt. and Govt. of India, at the time of release of second or subsequent installment.

## Annexure IV (A)

## Estimate of Cost for Setting up Unit Laboratory at the Sub-division Office of the PHED

The estimate of cost for setting up a Sub-Divisional laboratory as per modified NRDWP is detailed below—

Sl. No.	Items	<b>Annual Cost (in Rupees)</b>
1	Hire charges of Building Space annually	50,000.00
2	Furniture and Accessories vide Table 1 (One time)	61,860.00
3	Laboratory Equipment and glassware vide Table 3 (Variable)	212,134.00
4	Chemicals and Reagents vide Table 4 (Recurring)	63,654.00
5	Support Staff and Establishment vide Table 5 (Recurring)	236,000.00
	Total	6,23,648.00

Say Rupees Six Lakh Twenty Five Thousand Only

Table 1: Furniture and Accessories for each Laboratory

Sl. No.	Item	Quantity	Unit Cost (Rs)	Total cost (Rs)
1	Apron	8 nos.	300	2400
2	Hand Gloves	8 pairs	35	280
3	Duster 24" x 24" Duster 12" x 12"	12 nos. 10 nos.	25 10	300 100
4	Towel – Big size	4 nos.	100	400
5	Plastic bucket 15 lit capacity	2 nos.	90	180
6	Plastic tub – 20"x10"x6"	2 nos.	300	600
7	Plastic waste paper basket (big size)	2 nos.	75	150
8	Aluminum tray 12" x 15"	3 nos.	200	600
9	Plastic Wash bottle	3 nos.	20	60
10	Plastic drop bottle (60 ml)	2 nos.	15	30
11	Electric heater 1000 w	1 no.	200	200
12	Washing brush for test tube cleaning Washing brush for flask cleaning	12 nos. 6 nos.	10 10	120 60
13	Commercial grade HCL 1.16 purity (5 litre can) for cleaning purposes	2 cans	550	1100
14	Liquid Detergent – (5 litre can)	2 cans	550	1100
15	Wide range pH papers (2-10.5)	5 books	110	550
16	Wall Clock	1 no	100	100
17	Rubber slippers	6 pairs	60	360
18	Ralli First Aid Kit	1 set	400	400
19	Fume preventing mask	4 nos.	75	300
20	Sample bottle and field records carrying bags	2 nos.	250	500
21	Large size bound register of conquest paper	6 nos.	200	1200
22	Writing pad	6 nos.	20	120
23	Dot pen	6 nos.	10	60
24	Marker pen	4 nos.	35	140
25	Glass dropper for lab use	5 nos.	10	50
26	Spirit lamp	2 nos.	30	60
27	Solvent for spirit lamp	10 litres	34	340
28	Furniture as detail in Table 2	LS	-	50,000
	Total			61,860

Table 2: Furniture Details

Sl. No.	Item	Table Size	Remarks
1	Laboratory Table	6'0"x2'6"x3' ht-2nos.	2 power points of 5/15 Amp
2	Chemical Balance	2'6"x2'6"x2'6"ht	Top surface properly leveled and finished with marble on concrete slab resting on brickwork
3	Hot Air Oven 16"x16"x16"	2'6"x2'6"x2'6" ht	1 power point of 5/15 Amp
4	Distillation Plant	2'6"x2'6"x2'6"ht	1 power point of 5/15 Amp
5	Refrigerator		1 power point of 5/15 Amp
6	Incubator 18"x18"x24"	2'6"x2'6"x2'6"ht	1 power point of 5/15 Amp
7	Incubator 14"x14"x14"	2'6"x2'6"x2'6"ht	1 power point of 5/15 Amp
8	Table for bacteriological analysis	2'6"x2'6"x2'6"ht	1 power point of 5/15 Amp
9	Autoclave	To be placed on floor	1 power point of 5/15 Amp
10	Half Secretariat Table	4'0"x2'6"x2'6"	Made of steel with wooden top
11	Steel Almirah	78"x36"x18"	
12	Wooden Rack	48"x12"x60"	Shelves at 9" interval

- Laboratory table top should be finished with acid proof ceramic tiles.
- Autoclave may be placed in a separate room with tap water facility where suitable space is available. A space of 2'6"x2'6" is required for the purpose.
- All tables may be made by concrete slab over brickwork with intermediate shelves for storing of chemicals and glass wares. Front portion to be covered with door having locking facility.
- Laboratory sink shall be of porcelain with two taps, one ordinary bib cock to be used for washing purpose and the other with a threaded bib cock to be used for the distillation plant. It will be advantageous if a separate small sink is provided for the distillation plant.
- Separate rubber sandals shall be used in the laboratory.

Table 3: Requirement of Laboratory Equipment and Glassware (For one Laboratory)

Sl. No.	Item	Quantity	<b>Unit Price</b>	Cost (Rs)
1	Burette (50 ml) – Straight bore stopcock	2 nos.	1090	2180
2	Conical Flask			
	a. 250 ml	20 nos.	82	1640
	b. 500 ml	4 nos.	103	412
	c. 1000 ml	4 nos.	165	660
3	Graduated Pipette			(
	(a) 10 ml capacity	15 nos.	240	3600
	(b) 5 ml capacity	3 nos.	210	630
	(c) 1 ml capacity	15 nos.	170	2550
	(d) 0.1 ml capacity	12 nos.	205	2460
4	Nessler Cylinder, 50 ml graduated,			
	in 5 ml interval	24 nos.	110	2640
5	Nessler cylinder stand with 6 holes	4 nos.	150	600
6	Volumetric flask			
	(a) 100 ml	6 nos.	410	2460
	(b) 500 ml	4 nos.	665	2660
	(c) 1000 ml	2 nos.	965	1930
7	Beaker			(
	(a) 100 ml	6 nos.	72	432
	(b) 250 ml	6 nos.	71	426
	(c) 1000 ml	2 nos.	230	460
8	Measuring cylinder			(
	a) 50 ml	2 nos.	370	740
	b) 100 ml	4 nos.	425	1700
	c) 250 ml	2 nos.	660	1320
9	Porcelain Basin 4" dia	6 nos.	109	654
10	Polypropylene Stirring rod			
	10 mm dia x 250 mm long	6 nos.	15	90
	Glass rod – 5mm dia x 150 mm long	6 nos.	10	60
11	Filter funnel 75 mm	4 nos.	51	204
12	Funnel Stand – Iron with clamp	2 nos.	90	180
13	Wide mouth screw capped autoclavable			
	Reagent bottle 500 ml	6 nos.	210	1260
14	Flat bottomed Flask (100 ml)	6 nos.	56	336
15	Test tube without rim			(
	a) 18 mm dia 200 mm long	100	15	1500
	b) 18 mm dia 150 mm long	200	11	2200
16	Durham's tube 4 mm dia x 40 mm long	200	5	1000
17	Filter Paper, 125 mm,	6 nos.	400	2400
	^			(
18	NPL type distillation plant of capacity			
	1 liter/hr (1 kW Heater)	1 no	8,000	8000
19	Aspirator bottle of 5 liter capacity	2 nos.	750	1500

Sl. No.	Item	Quantity	<b>Unit Price</b>	Cost (Rs)
20	Double pan, chainomatic air damped analytical balance 200 gm capacity with external manipulation of weight including weight box.	1 no.	4,000	4000
21	Autoclave: Inner chamber made of SS304 grade, outer of MS fitted with pressure gauge, steam release valve, pressure regulator.			
	450 mm x 250 mm dia	1 no	40,000	40000
22	Incubator 18" x 18"x24" of aluminium chamber	1 no	35,000	35000
23	Aluminium tray (a) 12" x 15" (b) 12" x 12"	2 nos. 2 nos.	200 150	0 400 300
24	Autoclavable screw capped glass bottle for bacteriological analysis	50 nos.	50	2500
25	Wide mouth laboratory bottle (250 ml) with PP screw cap and PP pouring mouth autoclavable upto 190 degree C-250 degree C to be used for collection of water samples for bacteriological analysis	20 nos.	280	5600
26	Sample carrying ice box 12 litre capacity	3 nos.	1000	3000
27	Freeze of capacity 165 litres with stabilizer	1 nos.	8,000	8000
28	Orthotolidine test kit	2 nos.	2250	4500
29	pH meter	1 no.	29,250	29250
30	Hot Air Oven 15" x 15" x 18"	1 no.	8,000	8000
31	Test tube stand (aluminum) for 18 mm test tube	12 nos.	100	1200
32	Aluminum pipette case for autoclaving	2 nos.	250	500
33	Non absorbent cotton, 450 gm	20 nos.	50	1000
34	Precision Balance	1 no	20000	20000
	Total			212,134

Table 4: Reagents Required per 1500 Samples (To be Provided to one Laboratory)

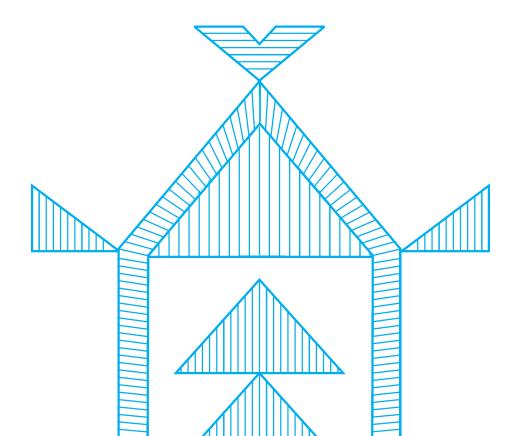
Sl. No.	Parameter/Regents	Quantity	Unit/Rate	Amount (Rupees)
For T	otal hardness			
1	Ammonia buffer solution 500 ml	8 nos.	124	992
2	EDTA N150 solution, 500 ml	8 nos.	108	864
3	Erichrome Black – T, 25 gm	3 packets	198	594 0
4	Ethanol, 500 ml	2 bottles	710	1420
5	Rectified spirit	2 bottles	120	240
For In	ron			
1	Hydroxylamine Hydrochloride 100 gm	5 packets	422	2110
2	1, 10 Phenanthrolin, 25 gm	2 packets	1810	3620
3	Ammonium acetate 500 gm	5 packets	265	1325
4	Acetic Acid 500 ml	20 bottles	165	3300
5	Ferrous ammonium sulphate, 500 gm	2 packet	273	546
6	Conc. HCL 500 ml	18 bottles	155	2790
For A	rsenic			
1	silver-diethyl dithiocarbamate, 25 g	2 bottles	2100	4200
2	Conc. HCL 500 ml	12 bottles	155	1860
3	Stannous Chloride, 250 g	8 bottles	575	4600
For c	hlorine demand and residual chlorine			
1	Sodium Thio Sulphate, 500 gm	1 packet	99	198
2	KI Crystal, 100 gm	1 packet	541	541
3	Acetic acid, glacial 500 ml	2 bottle	165	330
4	Orthotolidine solution (500 ml)	5 bottles	270	1350
Bacte	riological test			
1	Peptone 500 gm	6 packet	1200	7200
2	Di-potassium hydrogen phosphate, 500 gm	2 packet	500	1000
3	Ferric ammonium citrate, 100 gms	1 packet	270	270
4	Sodium thio – sulphate, 500 gms	1 packet	99	99
5	Teepol, 200 ml	1 bottle	150	150
6	MaCkonkey Broth, 500 gms	3 packets	3712	11136
7	Brilliant green bile lactose Broth, 500 gms	1 packet	3926	3926
8	MaCkonkey Agar, 500 gms	1 packet	3253	3253
9	Nutrient Agar, 500 gms	1 packet	5740	5740
	Total			63,654

Table 5: Support Staff and Establishment Annually

Items	Unit Cost	Total Cost (Rs.)
Honorarium for 2 Chemist and 1 laboratory assistants	Chemist @ Rs. 3,500 per month Laboratory assistant @ Rs. 2,500 per month	1,14,000
Mobility support for Chemist and NGO heads	Cost @ Rs 2,000 per month	24,000
Maintenance of laboratory including insurance against burglary and fire, electricity charges, replacement of glassware etc.	Cost @ Rs 2,000 per month	24,000
Collection of samples and report	Details in Table 6	74,000
	Total	2,36,000

Table 6: Collection of Samples and Report

Items	Total Cost (In Rs.)
Cost of Plastic bottle for sample collection, 400 nos. @ Rs. 5 per piece	2,000
Identification of Sources, coding and collection of water samples including transportation to the labs @ Rs. 10 per sample for 1500 samples	15,000
Testing of water samples for all parameters @ Rs. 20 per sample for 1500 samples	30,000
Transportation of 10% (150 nos.) samples to referral laboratory for retesting 75 nos. @ Rs. 20 per sample	3,000
Computerization of data and test results in prescribed format and report generation	24,000
Total	74,000



#### Annexure V

# Communication and Capacity Development Unit (CCDU)

# 1. Background

In demand driven and community based programme effective and creative communication play a crucial role in their success. Both Swajaldhara 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 resources centers which can help in proper implementation. Therefore Communication and Capacity Development (CCDU) Unit has been designed and implemented in each State for promoting initiatives in water supply and sanitation sector. States where the water and sanitation sector is looked after by two separate departments two CCDUs may be considered by the Central Government otherwise one CCDU shall look after the water and sanitation aspect in the State.

# 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

- New technologies which may be taken up under rural water scheme and total sanitation campaign
- Need for 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.

The detail is indicated at Annexure V-A.

### 3. Strategy

The IEC and HRD activities shall be converged at State level to be undertaken by an independent registered organization/institution named as "Water and Sanitation Support Organisation" (WSSO) constituted, as a registered society 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 guideline. 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 —

- In house training
- Create awareness amongst the community and all stakeholders
- Identify Key Resource Centre at State and Regional level

 Payment to be made to the State Technical Agency/Consultancy

The detail is indicated at Annexure V-B.

#### 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 National Rural Drinking Water Programme (NRDWP), Swajaldhara and Total Sanitation Campaign (TSC) project in the State
- Documentation shall be carried out of successful cases or initiatives taken by the States/agencies in dissemination of information. It shall also cover those villages which have done well in the past.
- States which are poor performing shall also be documented to find out the reason for it and possible solutions which may be accelerate their performance

# 5. Funding

The Government of India will fund the CCDU on 100% till 31<sup>st</sup> March, 2012 i.e. upto the end of 11th Five Year Plan.

All funds available under Swajaldhara, Total Sanitation Campaign (in case of Department dealing with both TSC and RWS), NRDWQM and MIS needs to be transferred to Water and Sanitation Support Organization (WSSO) a registered society constituted under State Water Sanitation Mission w.e.f. 1st April 2008

The institution shall look after the IEC and HRD activities of:

- Water and Sanitation issue
- Water Quality Monitoring & Surveillance
- MIS/Computerization programme

- Sustainability Swajaldhara
- Support to State Technical Agency
- Monitoring and Evaluation of the project
- · Research and Development activities

Funding shall be provided by the GoI to WSSO @ Rs 6.00 crore per year for major State and Rs 4.00 crore per year for smaller State (population basis). State shall prepare State, District and Block level Master Plan on IEC and HRD reflecting the activities they wish to undertake keeping in mind their region specific problem for budgetary approval of the GoI.

Annual Action Plan to be prepared by each States for taking up IEC and HRD activities during the particular financial year which should be need based and get it approved by the State level scheme sanctioning committee every year before the commencement of the financial year. State shall prepare State, District and Block level Action Plan on IEC and HRD reflecting the activities they wish to undertake keeping in mind their region specific problem for budgetary approval of the GoI.

The Action Plan should consist of the following:

- Activities to the undertaken
- One time procurement of equipment (if not already procured)
- Establishment cost (Consultant fee, contingency, TA/DA)
- Upgradation of the equipments purchased earlier or replacement of outdated/non functional items

There should be full compliance to the General Financial Rules as amended from time to time. It has been observed that submission of Combined Utilization Certificate shows funds released under other heads which may lead to difficulty in clearance of File by the Finance. Separate account needs to be maintained for CCDU clearly indicating the budget heads under which expenditure has been incurred.

### 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 for the establishment cost.

Since some of the offices of CCDU are in rented premises an amount of Rs 50,000/- p.m. may be allowed to them for payment towards rent. The CCDU should be allowed to spend money towards repair or slight changes in the office to keep it operational. In addition to it electricity, water and other office expenditure may also be given to the CCDU for proper office functioning. The running cost may be Rs 15,000/- p.m.

### 7. Structure of CCDU

1.	Director	01	on deputation/ contract	as per the pay scale
2.	State Coordinator	01	on deputation/ contract	as per the pay scale
3.	Accountant	01	on deputation from Govt./	as per the pay scale
4.	Consultants	03	contract	Rs 30,000/-
5.	Data Entry Operator	02	contract	Rs 8,000/-
6.	Peon	01	contract	Rs 5,000/-
7.	Security Guard	01	contract	Rs 4,000/-

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

# 8. Training Cost Norms

For training courses the following cost norms have been finalized:

• Five day residential course Rs 60,000/- @ of Rs 12,000/- per day

- Three day residential course Rs 36,000/- @ of Rs 12,000/- per day
  There should be minimum of 15 trainees in each course. The cost is inclusive of TA/DA for participants and guest faculty, honorarium for guest faculty and other incidental expenses.
- Awareness camp for grassroot level worker for one day shall be Rs 150 per participant Travelling expenses of participants for grassroot level camps is not be provided as these are conducted at block and village level. However, boarding and lodging expenses for grassroot level trainers undergoing training are permitted as per the respective state norms.
- Exposure visit for a minimum of 20 persons shall be part of HRD activity. Five day exposure visit the amount is Rs 1.00 lakh (within the State) and Rs 1.5 lakh (outside the State).

### 9. Exposure Visit

(Within the State)

(a)	Venue arrangement	Rs 20,000/-
(b)	Boarding and lodging	Rs 15,000/-
(c)	Travelling Cost of Resource Persons	Rs 5,000/- @ Rs 2,500 per person (for two)
(d)	Travelling cost of participants	Rs 40,000/- @ Rs 2,000 per person two way
(e)	Course Material	Rs 5,000/-
(f)	Field Trip	Rs 5,000/-
(g)	Honorarium to Resource Person	Rs 2,000/-
(h)	Contingency/Overheads	Rs 8,000/-
	Total	Rs 1,00,000/-

### 10. Exposure Visit

(Outside the State)

(a)	Venue arrangement	Rs 20,000/-
(b)	Boarding and lodging	Rs 20,000/-
(c)	Travelling Cost of	
	Resource Persons	Rs 10,000/- and
		Rs 5,000 per
		person (for two)
(d)	Travelling cost of participants	Rs 80,000/- @ Rs 4,000 per person two way
(e)	Course Material	Rs 5,000/-
(f)	Field Trip	Rs 5,000/-
(g)	Honorarium to	
	Resource Person	Rs 2,000/-
(h)	Contingency/Overheads	Rs 8,000/-
	Total	Rs 1,50,000/-

Exposure visit outside the State will be allowed only twice a year

# 11. Expenditure Involved at District Level

(a)	Travelling expense of State Coordinator	Rs 20,000/- p.m. for one vehicle
(b)	Car expense for Consultants	Rs 20,000 p.m. for one vehicle

# 12. Payment to State Technical Agency (STA) and National Expert Group Identified by RGNDWM

STA and National Expert Group 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 the norms set up by PMGSY programme of Ministry of Rural Development, GoI, needs to be followed.

# 13. Reporting Mechanism

The progress report on the IEC and HRD activities from planning to implementation for various functionaries at different levels may be sent to the Department of Drinking Water Supply on monthly basis to enable us to understand the work being carried out and suggest changes if so desired.

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

The progress reports would be regularly updated on the Online Monitoring Reporting system.

# 14. Physical Progress Report of HRD Trainings

Training Venue No. of days Person	ns Trained Subject Co	ost Incurred Outcome
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# Physical Progress Report of IEC Activities

Medium Target Group Duration Subject Quantity	Cost Incurred Outcome
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#### Annexure V-A

# 1. Objective of IEC Strategy

- To create a sense of participation among the community, especially women and involve them in planning and implementation of water and sanitation programmes and in maintenance of the systems;
- To create a sense of willingness among them to pay for the construction of sanitation facilities and water supply systems;
- To educate people against open defecation by creating a felt need among households for construction of individual latrines;
- To create awareness about proper storage, handling and consumption of safe drinking water;
- To create consciousness about good hygiene like hand washing after defecation and before cooking/eating; need for safe disposal of children's excreta; keeping the surroundings of water sources clean;
- To create awareness among the community regarding safe disposal of waste water and solid wastes;
- To create a sense of competitiveness among individuals and households on sanitation levels through social marketing;
- To prepare motivators within the community, and make all sections of society conscious of their duty to promote good sanitation and safe drinking water;
- To bring about permanent change in people's behavior and attitude regarding sanitation and safe drinking water;
- To protect drinking water sources from pollution;
- To empower rural women in the management of water supply and sanitation programmes;

- To reduce infant mortality and morbidity through improved sanitation and safe drinking water;
- To promote low cost, location specific appropriate technologies;
- To encourage establishment of production centres and delivery outlets;
- To encourage participation of voluntary agencies at the community, block and district levels:
- To institutionalize the concept of sanitation and safe drinking water within the community, and to be passed on from generation to generation like other social customs.

# 2. Strategy for Implementation of IEC Campaign

An integrated state specific communication plan shall be formulated by the CCDU for effective dissemination of information and a change in the behavior in the target audience. The communication strategy statement shall clearly define the target audience for the campaign, the communication objectives for each target audience of what we propose to achieve.

The plan would act as a blue print to guide the cost effective and maximum reach. It should also specify the modes of communication through audio-visual, print, folk, outdoor advertising and inter personal communication.

The campaign should focus on the specific aspects of TSC:

To create awareness on eradication of open

- defecation in every village;
- Promotion of household latrine as a precious product, with emphasis on 'prestige', 'status', 'privacy' and 'convenience' (targeted principally at women);
- Need for toilets for school children and Anganwadis;
- Health education aspect to be introduced into the community through schools and Anganwadis;
- School water supply and sanitation to be an integral part of the strategy for total coverage;
- To shift from the conventional health education approach to social marketing approach of the programme;
- Upgradation of one pit toilet to pour flush toilets;
- Operation and maintenance of existing toilets and is sustainability;
- Solid liquid waste management;
- Private sector efforts for construction and maintenance should be encouraged;
- Gender specific water and sanitation issues;
- Supply of water to consumers on the principle of effective demand, which should broadly correspond to the standard of service that the users are willing to maintain, operate and finance;
- Judicious use of water;
- Water quality and testing of water;
- Various techniques in water harvesting and new innovative techniques introduced in water and sanitation sector;
- To involve all sections of the society from bottom-up to top-down, for people's movement to change popular perceptions about sanitation and drinking water and bring about a permanent behavioral change at the community level.

# 3. Target Audience

The target audience shall consist of the following:

#### Primary Audience

Women members, Head of the family, SHG members, School children, Youth, Adolescents (especially girls), focusing on general personal hygiene practices, Physically challenged

#### Influencers in the Village

School Teachers, Anganwadi workers, ASHA/ Health workers, Panchayat President/ Members, Non governmental organizations/ youth clubs, Religious leaders, Village motivators, Government officers, Policy makers

#### Influencers at District level

District Magistrate, Block Development Officer, Non governmental organizations/youth clubs, Political leaders, Professors and lecturers

# 4. Agencies to be Involved at District Level

The following agencies could be involved at the district level to carry out IEC campaigns:

- District Water and Sanitation Committee (DWSC)
- · Zilla Parishad
- Rural Development Department
- Public Health Engineering Department (PHED)
- Non Governmental Organisations
- Youth Organisations

# 5. Approach

The key issues related to Water, Sanitation and Hygiene will be addressed on national terrestrial and satellite channels and radio stations. The issue is not a priority among the primary audience, the communication on mass media will help create conducive environment for the issues to become a point of discussion among the primary audience.

#### Electronic Media

Radio and Television can be roped in to dedicated programming on water sustainability, sanitation facilities and hygiene practices. The key focus of the message will be on present status of water and sanitation, the linkage between health and unhygienic behavioral pattern, efforts to improve the present condition through social responsibility and accountability.

#### Print Media

The role of print media is to reach larger number of audience and generate the analytical thinking among primary and secondary audience. It will also serve as a medium of advertising the schemes and events planned by the State Government. Sharing of experiences on success stories, innovative strategies and region specific low cost options can also be published.

#### Inter Personal Communication

To deal with the community and region specific issues at district and Gram Panchayat level. These interactive medium will help in clearing the doubts of the audience and take instant action. The advantage of this channel is the messages can be communicated to the target audience who are illiterate.

#### Traditional Media

In India, the wide variety of folk media which have a traditional familiarity with the masses makes the live performances an important vehicle of communication. The traditional media like song and drama, puppet show, story telling etc has a quality warmth and personal touch which created a deep emotional impact. The live performances have popular appeal and are always in demand.

### **Outdoor Publicity**

Mass media of outdoor publicity reaches to large audience very easily. The visibility of this media is very high. People remember the message. Due to longevity of the message it acts as a reminder media for the audience.

### 6. Messages

IEC campaign should give the following messages:

- The beneficiaries will own the assets constructed:
- The Government will not maintain the assets constructed;
- The government will make one-time investment in the District;
- On completion of the project, the district will be considered fully covered;
- Two or more alternative technologies suitable to a particular area along with information, regarding its capital cost, beneficiary share, O&M cost, replacement cost etc for each technology;
- Full O&M and replacement cost and partly capital cost will be borne by the beneficiary;
- Importance of water quality monitoring & surveillance;
- Importance and benefits of water recharging facilities;
- Possible technologies for water recharging activities in the area;
- Promotion of Nirmal Gram campaign;
- Any other local issue pertaining to the area.

#### 7. Material

IEC materials to be used for the campaign:

It is often better to demonstrate things while speaking about them. For example use of toilet or cleaning the toilet or how community can contribute to the programme can be well explained through different audio/visual aids like:

Information booklets, Flash cards, Posters, Flip charts, Leaflets, Pamphlets, Newsletters, Community mapping (SARAR tools), Calendars, slide shows, Folk songs, Street plays, Puppet shows, Different outdoor games like snake and ladder, jigsaw puzzle, building blocks, Jingles, Slogans, Documentary films, Audio-visual spots

#### Annexure V-B

# 1. Strategy for Implementation of HRD Campaign

The State CCDU needs to make an indepth 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 coordination with STA and other State and national Resource Institute needs to develop "Training modules" for different stakeholders on different related subjects.

Training is a must not only for senior officials of CCDU but also for grass root functionaries.

#### Village level

Women, Masons, Self Help Group, Gram Pradhan, Motivator, Teacher, Anganwadi workers, Health workers/ASHA workers, Non Governmental Organizations/Community Based Organizations, Village Water Sanitation Committees

#### Block level

Block Development Officer, Health Officer, Education Officer, Non Governmental Organisations, Junior Engineers, Master Masons, Teachers

#### District level

District Coordinator, Support Staff, Assistant Engineers, Non Government Organisations, District Water Sanitation Committee members, Development Officer, Other related department officers

#### • State level

Consultants of CCDU, Support staff of CCDU, Executive Engineers, Non Government Organisations, Other related department officers

#### Annexure V-C

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

### 1. Background

The Accelerated Rural Water Supply Programme (ARWSP) was introduced in 1972-73 by the Government of India to assist the States and Union Territories (UTs) to accelerate the pace of coverage of drinking water supply. The entire programme was given a Mission approach with the launch of the Technology Mission on Drinking Water and Related Water Management in 1986 and renamed as Rajiv Gandhi National Drinking Water Mission in 1991. Later in 1999 Department of Drinking Water Supply was formed to give more emphasis on Rural Water Supply programme.

The Bharat Nirman Programme is a step taken towards building up a strong Rural India by strengthening the infrastructure in six areas viz. Housing, Roads, Electrification, Communication (Telephone), Drinking Water and Irrigation, with the help of a plan to be implemented in four years, from 2005-06 to 2008-09. The primary responsibility of providing drinking water facilities in the country rests with State Governments. The efforts of State Governments are supplemented by Government of India by providing financial assistance under the Centrally Sponsored Scheme of Accelerated Rural Water Supply Programme (ARWSP).

As per Bharat Nirman programme, it is proposed to provide safe drinking water in adequate quantity to all uncovered habitations and address all water quality problems in the country. Sustainability of drinking water sources should be mandatorily included into all projects so that they do now slip back again from the fully covered status. The issue on rural drinking water supply should primarily address 3 major components i.e., Availability, Quality and Sustainability. Different State Governments have followed different strategies and trying to achieve this goal. However, there is a need to augment/enhance the technical expertise and provide proper hand holding for adopting low cost, eco-friendly sustainable solutions.

Another important goal of the Department is to provide access to safe sanitation to all by 2012. Various technological options on toilet designs have already been provided to States. However, any improvement in cost, durability, etc., could be advised by the technical experts. Environmental friendly "Ecosan toilets" needs to be promoted. Design of urinals is still not properly done in many States. This is another area, wherein technical expertise could be useful. The issue of solid and liquid waste management has been recently introduced into TSC guidelines. There is a lot of scope of technical intervention in this regard.

In order to incentivize good behaviour, Nirmal Gram Puraskar was launched in the year 2004-05. This award is given to those Panchayats which achieve the unique distinction of achieving open defecation free environment with good solid and liquid waste management.

Similarly, in order to incentivize good behaviour in water supply, an award called "Sajal Gram Puraskar" is conceived to reward those Panchayats which achieve the distinction of creating drinking water security during the last 3 years with no reporting of water borne diseases arising out of water supply and sanitation activities.

The ultimate aim of the Government is to ensure permanent drinking water security to all 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 budgeting and security plan prepared by the community.

There is a lot of technical expertise required by the Panchayats to achieve the above-said distinctions. The National Level Monitors Programme, which also monitors NRDWP and TSC guidelines, are not having the specific expertise that is required by the purpose. Therefore, this specific programme, is devised, to assist the State Governments and is a 100% centrally sponsored programme and would continue during the XI Plan period.

### 2. Specific Objectives and Tasks

- To assist State Governments in providing appropriate technology and bringing sustainability of drinking water supply systems, safe sanitation, proper handling of water and hygiene practices and solid/liquid waste management, etc.
- Promoting sustainable technologies like Ecosanitation, production of sanitary napkins through women SHGs, etc.

- 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.
- Training/capacity building of State/PRI officials
- Creating household level drinking water security and access to safe and sustainable drinking water supply to all.
- 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
- To review the progress of implementation of rural water supply and sanitation programmes.
- To bring awareness on conjunctive use of water and water budgeting
- Conduct refresher training courses as per demand of States
- Providing all technical support for achieving Nirmal Gram Puraskar and Sajal Gram Puraskar.
- Assist in developing publishing technical manuals/operational guidelines/publications/ brochures/leaflets on water, sanitation, health and hygiene related issues.
- Bring in change management principles and awareness thereof
- Assisting RGNDWM regularly in updating the technology/information database and making the Mission, a Technology Hub.
- 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 updating the States about the information.
- Assisting the States in using high-end technologies like GIS/RS for preparing good quality hydro-geo-morphological maps and identification of appropriate sites for recharge structures.
- Review district water testing laboratories and provide necessary technical advice for improvements/upgradation of these labs.

- Bring in legal opinions and assess legislative requirements for protection of drinking water sources
- Nutritional intervention, preventive medicine, accurate diagnosis for specific diseases like fluorosis.
- The Panel of Experts shall be validated once in 2 years. The Ministry reserves the right to delete any technical expert from the suggestive list, without assigning any reason thereof.
- Any other technical work/discussions referred to the Experts, by the Department of Drinking Water Supply.

# 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 in various Organizations. Retired professionals and professionals who have worked in the sector in responsible positions are preferable as their contribution to the sector will help in improving the living conditions of the most vulnerable sector of the rural population.

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

Relevant University/Engineering or other relevant Degree

At least 20 years of rich 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, legal experts, 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 biogasifiers, community mobilization specialists, software solutions for reducing O&M cost, online monitoring, etc. or any related field of work.

The initial empanelment of Technical experts has been done with professionals known to the Department directly or indirectly who has worked for the Department in the past. In future, in order to bring in more technical expertise and transparency in the process of empanelment, an "Expression of Interest" will be floated in selected major news papers of the Country for the purpose.

# 4. Institutional Mechanism for Engaging Technical Experts

Under the revised and approved Rural Water Supply Programme guidelines, the State Water and Sanitation Mission (SWSM) is the key institution for implementation of all programmes relating to rural drinking water supply and sanitation. The SWSM will be chaired by the concerned Secretary in-charge of Rural Water Supply and Sanitation. In States, where the Rural Water Supply and Sanitation are handled by different Departments, the Chief Secretary of the State or any other suitable senior officer should be the Chairman and the Secretaries in-charge of rural water supply and sanitation could be cochairpersons. This SWSM will be a registered society and will have a bank account in any nationalized bank. The Engineer-in-Chief or the senior most Chief Engineer will be the Member-Secretary of the SWSM.

Under the Member Secretary of the SWSM, there will be two major divisions viz., Line department involved in the implementation of rural water supply and sanitation programme and the State Water and Sanitation Support Organization (WSSO) which will comprise of State Technical Agency (STA), CCDU, MIS and Computerization

programme, Water Quality Monitoring & Surveillance, Monitoring and Evaluation and R&D units.

The STA will provide all technical inputs to the SWSM and the State Level Scheme Sanctioning Committee for approving new rural water supply projects with sustainability component built into every project so that they do not slip back from fully covered status. A senior Officer may be nominated as the in-charge of the STA with certain minimum staff support within the manpower available in the Organization.

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 SLSC for approval. The concerned Technical Adviser from the Department of Drinking Water Supply, New Delhi shall be involved mandatorily at the SLSC meetings to ensure that Sustainability component is invariably built into the project proposals, before these are approved for implementation.

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 (SLSC)/State or Central level discussions/Reviewing the Sustainability component in projects already prepared by the State Governments for sanction of SLSC/ 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 Sustainability component is not built in and has to be designed with all details. ii) Totally new projects are required to be prepared along with Sustainability component 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 SLSC 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 model elsewhere.
- Developing Training Manuals/Modules/ Design/Hand book, etc. on Water Supply or Sanitation
- Conducting specific training/awareness generation programme
- 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 revised National Rural Drinking Water Programme – Framework for implementation, 2008-2012.

A suggestive list of Technical experts State-w

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.

# 6. Continuation of the Programme in the XI Plan Period

The Programme will continue in the XI plan period starting from the financial year 2008-09. Release of funds to WSSO in the subsequent years, will be governed by provisions mentioned in the revised National Rural Drinking Water Programme – Framework for implementation, 2008-2012.

#### Annexure-VI

# Guideline on Computerisation and Management Information System (MIS)

The Rajiv Gandhi National Drinking Water Mission in the Department of Drinking Water Supply (DDWS), Ministry of Rural Development had taken up the Computerisation/MIS Projects during the 9th Five Year Plan for effective planning, monitoring and implementation of various activities under Rural Water Supply and Sanitation Sector. The programme continued in 10<sup>th</sup> plan with key emphasis on application software development, deployment, connectivity, hardware upgradation and capacity building.

The Government of India will continue to practice and promote e-governance activities within the Department/Mission and support the strengthening of these activities, at state government, during the 11th Five-Year Plan

(2007-12) with the 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, and e-service delivery. The programme also proposes to consider the provision of computing environment at subdivision (sub-district in the field offices of PHED/ RWSS agencies) level in the remaining states.

2. Government of India will provide financial support to the State Governments/NIC-DDWS, as per the following funding norms as indicated in table I below:-

Table I

Sl. No	Item	Govt. of India Share	State/UT Govt. Share
1	Computing Environment		
	1a For Mission HQ	100%	
	1b New field offices at state/circle/zones/divisions	100%	
	1c Remaining/new Sub Division offices	100%	<del></del>
	1d Upgradation of hardware and system software	100%	
2	Connectivity/Networking for remaining sites/offices including sub division and VC facility at state and		
	Mission HQ.	100%	
3	Strengthening (Modification/addition/up gradation) of MIS/Application Software Package		
	3a Operation and Maintenance – MIS 3b Development of State PHED/RWSS Dynamic	100%	
	Website, its linkages with state/DDWS MIS, making it compliant with W3C accessibility/		
	security standards, localization, e-documentation,		

Sl. No	Item	Govt. of India Share	State/UT Govt. Share
	Multimedia presentation and for sharing departmental data/information dynamically, in		
	public domain	100%	
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	100%	<del></del>
5	Capacity Building 5a Capacity Building for centrally developed applications by DDWS (IMIS, new technology such as usage of GPS enabled		
	devices/hand held devices etc)	100%	<del></del>
6	GIS Development 6a GIS Hardware and system software		
	(only at Mission and State HQ Level) 6b GIS sensitization at IIRS/NRSA for	100%	
	maximum 5-10 persons/state	100%	
7	Central Monitoring Cell for ensuring the effective		
	implementation of the 11th Plan e-Governance Guidelines	100%	
8	Recurring Expenditure and consumables for state projects		100%

During 11th plan, It is proposed to provide hardware/networking support to new divisional offices and sub-divisional offices in states not funded so far, at the sub division level. The support is also proposed to be provided to the remaining division/states who have not been able to utilize the support during the 10th plan. It is also proposed to provide support for content management for effective operationalization of State MIS Software. Provision has also been kept for providing GIS development funds to the States who have done exceptionally well in implementing the MIS/e-Governance guidelines. Submission of accurate online data, regularly on the DDWS-IMIS website, is a non negotiable precondition for funding under these guidelines.

For implementation of the above Project, the project committees at the national and State level constituted for 9th Plan will continue to function during 10th plan period. However the IIRS and NRSA would function as partners in training of state/central GIS resource persons and therefore their representation in the NPC is proposed.

(i) National Project Committee (NPC): The Project Committee will be under the chairmanship of Joint Secretary and Mission Director, RGNDWM, Department of Drinking Water Supply, Ministry of Rural Development.

The composition of the committee will be as follows:

i)	Joint Secretary (TM), RGNDWM	Chairman
ii)	Deputy Secretary/ Director, RGNDWM	Member Convenor
iii)	Representative of NIC	Member
iv)	Director (Finance), M/o Rural Development	Member
v)	Representative from DGS&D	Member
vi)	Representative from NRSA/IIRS	Member

The Committee so constituted is meant for taking policy decision, approving projects submitted by state government and making recommendations regarding the project implementation for further approval of the competent authority. The committee will also review and monitor the performance of the projects sanctioned to states/ UTs.

(ii) State Level Committee (SLC) on Computerisation will be under the Chairmanship of Secretary-in-charge of State Rural Water Supply Program. The officer-in-charge of the related MIS Project at the State level will be Member Convenor. It is mandatory to have a representative of RGNDWM and the State Informatics Officer of NIC as member of the State Level Committee. The State Level Committee will have representatives from the State Government Finance, Planning and Information Technology Departments as Members. This Committee will have the powers for according approval of the respective State MIS Computerisation project as per the guidelines of the Mission. The notification for constitution of the State Level Committee will be issued by the respective State Government, All project proposals being sent to NPC (Delhi) should have proper approval of SLC based on least cost option following state specific codal formalities. The SLC will also be responsible for periodic review of progress and implementation of the state MIS projects funded under this programme.

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 11<sup>th</sup> Plan period also. NIC will assist the Project Committee at the National Level. The NIC State Unit will assist the State Level Committee (SLC) for implementation of the Project in the identified areas stated above. At the center, NIC will be solely 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.

### 1. 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, it has been decided to adopt the specification and rates finalized by the respective States/UTs Governments following proper codal formalities at the time of procurement of hardware. The finalisation of the hardware specification under this project should be approved in the SLC on MIS Project before it is sent to the NPC.

Following items will be allowed at different category of offices:

- 1.1 It is proposed that the funding, on actual basis, may be provided to have exclusive cluster of servers and storage facility at NIC data center, at Delhi, to cater to the increasing/changing needs of monitoring and planning. Detailed proposal for the same, will have to be submitted by NIC for recommendation by NPC.
- 1.2 New field Offices (State/Zonal/Circle/ Divisions/subdivisions) RGNDWM will continue to support newly created field offices in the states, as in the 9<sup>th</sup> and 10<sup>th</sup> plan period. The following hardware will be provided in the new offices.

At the Head Office of any new State Government handling with Rural Water Supply and Sanitation, the following equipments and activities will be supported under the project (For Secretary/Engineering Director, Engineer-in-Chief/Chief Engineer or equivalent rank)

Table II: For Secretary/Engineering Directorate/Engineering in Chief

a	Production Server	one
b	Replication Server	one
С	Design Computer with plotter, digitizer, Laser printer and Auto CAD or any other similar Software	one
d	Desktop with printer and necessary system software	One for each officer of the rank of Executive Engineer and above dealing with Rural Water Supply and Sanitation. This will apply to Executive Engineer working in Zonal, Circle offices also.
e	Laptop	Two
f	LCD Projector	One
g	Multi function printer with scanner	One
h	UPS/CVT based on the requirements	
i.	Portable Hard Drive, pen drive, internet data card (as per requirement)	
j	Rupees seventy five thousand as one time grant for site preparation which may include cabling, ducting etc. (Building construction is prohibited).	
k	System software like Operating System, RDBMS and office automation as per actual requirement	
1	Installation of Local Area Network (LAN)	
m	Internet connectivity through dial up line/lease line/VSAT and associated network equipments (like router etc.) as found suitable.	

## Table III: At new Zonal/Circle/Divisions the following Hardware will be Provided

a.	Production Server with reqd. RDBHS for implementation of IMS	One/(Division Head Offices only)
b.	LAN Server (Networking point of view)	One
c.	Desktop and printer	Three
d.	UPS and CVT, based on the requirements in each office	
e.	Rs.75,000 for site preparation for each office	
f.	Each Desktop with office automation application software	
g.	One copy of design software for each office	
h.	Installation of LAN based on switch/hub/repeater and CATS cabling	
i.	Portable Hard Drive, pen drive, internet data card (as per requirement)	
j.	Internet connectivity through dial up line/lease line/VSAT and associated network equipments (like router etc.) as found suitable.	

### 1.3 Sub Division Offices and Water **Quality Testing Laboratories**

Keeping in view the assistance provided to the states, in the last two plan periods, it is proposed that subdivision level computerization, in remaining states, would be supported in the current plan period. Those states, which have not claimed any funds for this purpose in the 10<sup>th</sup> plan, would be provided with funds for computing environment and connectivity. The following items will be allowed at Sub-Division Offices.

#### Table IV:

#### 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 suita	able
g.	Installation of LAN based on switch/hub/repeater & CATS cabling	

#### Table V:

#### 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		

### 1.4 Upgradation of hardware

Keeping in view, the pace of technical advancement and innovations, all hardware approved by NPC, 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. Buy back options could also be considered, after due approval from SLC.

1.5 Savings due to reduction in cost of hardware, can be utilized for new hardware or upgradation, with the approval of SLC.

## 2. Connectivity/Networking/Video Conferencing Facility

#### Table VI:

	T . 11 . CT . 3 T 1 T T 1 (O 1 . 1	1 111		
2	Installation of LAN based on Hub/Switch and	l cabling at new offices and	remaining Sub-Division level	As ner requirement
а	mistaliation of Lan based on Trub/Switch and	i cabining at new offices and	Terrianning Sub-Division level.	no per requirement

# 3. Strengthening of Application Software/MIS Package Implementation

During the 10<sup>th</sup> plan, States were offered and provided funds for development of MIS Software based MIS guidelines. As a result, 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 and it hence it is proposed that funds may be provided to those states which have deployed the MIS and is under utilization. The NPC will review the extent of usage of the MIS developed by the states and take decision in view of the following conditions, on whether the state is eligible for MIS (O&M) funds.

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

This condition is applicable for GoI funding under 3, 4 and 6 of this guidelines.

- 3(a) Operation and Maintenance MIS One time funds not exceeding Rs 6,00,000/-(@ Rs 50,000/- pm for 12 programmer man months)
- 3(b) State PHED/RWSS Websites In the 11<sup>th</sup> plan period, it is proposed that all the existing static web sites are to be

converted to dynamic sites. All the new websites, which are proposed to be developed and hosted, should also be dynamic in nature. DDWS proposes to fund the conversion/development, maintenance and hosting of these dynamic web site. The Web Site has also to be enabled in local language and easily accessible for physically challenged people. The specifications are mentioned in Table — I above. Funds for this activity would be provided one time as per the requirement

## 4. Content Management

For Making MIS Data Compliant with 2001 Census Codes, localization of data and adherence to other standardized content management practices, 100% funding will be provided, based on data entry man-months as per requirements. Cost of engaging enumerators for one time GPS survey of water sources, will be provided under this head, as per requirements.

## 5. Capacity Building

100% funds will be provided for capacity Building for centrally developed applications by DDWS including usage of GPS enabled devices/hand held devices for mobile application, as per proposal submitted by NIC. The proposal should contain plan for capacity building through field level training programmes as well as web based multimedia videos and presentations.

## 6. GIS Development

100% funds for GIS application development would be provided to 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, at the Head Office of the State Government dealing with Rural Water Supply and Sanitation, the following equipments/activities, for GIS development, will be supported.

The proposals can be considered by GoI, subject to condition stated in point no. 3 above. The NPC may take practical view and may consider sanctioning first installment of GIS project to states, if efforts are underway to fully operationalise Water Quality Monitoring & Surveillance Module" and other conditions are adequately met. However, Subsequent installments for GIS activity would be released only when the afore stated conditions are met in letter and spirit.

100% funding would be provided for hardware, system software and application development of Comprehensive GIS package for DDWS, based on proposal received from NIC.

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

#### Table VII:

a.	PC with OS	2
b.	A0 Size Scanner cum Printer	1
c.	A0 Plotter	1
d.	UPS 3 KVA	
e.	Digitizer A3 Size	1
f.	GIS software (as per requirement)	

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

The financial assistance to states/Mission HQs, for GIS, is proposed to be one time, from Govt. of India, as per rates provided by the Survey of India (SoI)/NRSA/NICSI.

- Central procurement As per requirement of maps from SoI – As per requirement
- Digitisation of Gram Panchayat/ Village/habitation Boundary at 1:4000 scale
- GIS Application As per assessment software development done by NPC
- GIS sensitization training at IIRS/NRSA for maximum 5-10 persons/state - Sensitization training will be conducted by IIRS and NRSA,

as per their agreement with the RGNDWM, for field officers from each state, in batches, as per requirement. It is proposed to be done in phases and first phase may cover 5-10 officials per state. TA/DA of participants is to be provided from CCDU funds.

## 7. Central Monitoring Cell

It is proposed that a Central Monitoring Cell, be formed in the Mission Headquarters, to ensure the effective implementation of the e-Governance Guidelines. This Cell would be headed by the Director/Deputy Secretary (In charge of MIS Programme). NIC will be an integral part of this Cell and will function as the main advisory body for execution of these guidelines at the central level. This Cell would also be fully equipped to develop and maintain the national database on Rural Water Supply and Sanitation, and extend the same to GIS platform. 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, 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, if required.

#### 8. Procurement

11. The procurement of hardware and office automation softwares will be done by State Governments after the project is approved by National Project Committee of RGNDWM,

Government Agencies like NICSI, NCCF (which has presence in most of the States), other state government agencies, may be given preference in procurement of hardware under this programme. All the prudent financial norms as prescribed by the respective state governments for procurement of computers should be followed.

### 9. 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.

# 10. Treatment of Funds Released upto 31st March, 2012

The States/UTs should utilise the fund available with them for MIS, which was released during 10th Plan, by 31.3.2012. The States may choose their own specifications and procure hardware and office automation package subject to the ceiling of unit cost for each item prescribed at the time of sanction of the project. However major emphasis is laid on networking, completion of development and deployment of MIS/application software, compliance with census 2001 codes and regular transmission of data to Mission HQ, so that the ultimate aim of development of a national GIS on Rural Water Supply and Sanitation is achieved during the 11th Plan period. Fresh proposals for activities during the 11th plan will have to be put up by the states for approval in the NPC latest by 31.12.2009.

# 11. Utilisation and Audit Certificate for State MIS Projects

States/UTs must submit the utilisation certificate in the prescribed form duly signed by Chief Engineer (PHED) and countersigned by Secretary in charge of Water Supply as per Annexure-I for the financial year preceding the year of the release of 2nd installment of funds under MIS. The Audit Certificate should also be furnished from Accountant General for the preceding financial

year. No funds would be released without receiving these certificates.

In case of projects executed for the Mission, through NIC/NICSI for implementation of these guidelines at central/Mission level, Expenditure Statement as per Annexure-II will have to be provided by the executing agency.

# 12. Installment of Release of Funds

Funds would be released by the Mission to States/ UTs, under MIS, in two instalments. The Ist instalment (70%) would be released after approval of project by Project Committee. The last instalment (30%) amount would be released after the State Government furnishes the utilisation certificate for the previous year and AG certificate for the preceding previous year and 60% utilisation of amount released to States/UTs. The States/UTs Governments must satisfy the Mission that they have procured the necessary hardware and developed and implemented the application software. In case the funds released by the Mission could not be utilised by the States/ UTs the same would be adjusted against ARWSP releases and future MIS projects to be sanctioned.

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 1<sup>st</sup> installment (70%) would be released after approval of the project by NPC. The last installment (30%) 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.

# 13. Completion of Project Sanctioned

Project sanctioned must be completed within the period of 15 months. In case it is not completed, valid reasons will have to be submitted by the States/ UTs Government for release of subsequent funds.

#### Annexure-VIA

# Form of Utilisation Certificate for State MIS Projects

Sl.N	NoLetter No. & Date	Amount
1st year Rs Rs	rtified that out of a total fund available of Rslakhs April,(year) and an amount of Rslakhs arin favour oflakhs has been utilised for the purpose forand it will be adjusted towards the grant ar	received as grant-in-aid sanctioned during the under the Ministry's letter No. given above, or which it was sanctioned leaving a balance of
	s also certified that the expenditure indicated above final expenditure and civil deposit etc. treated as fina	, e
fulf	rtified that I have satisfied that conditions in which the filled/are being fulfilled and that I have exercised the the ually utilised for the purpose for which it was sancticed.	following checks to see that the money was
Kiı	nds of Checks Exercised:	
	Grant-in-aid checked from the register maintained. Expenditure checked from the register maintained.	
		Signature of Chief Engineer (PHED)
		Countersignature of Secretary in-charge of Rural Water Supply

#### **Annexure-VIB**

# Expenditure Statement for Central/ Mission Level Projects

Project No:				Date : _		
Project Name :						
Sl. No. Particula	rs Party Name	Qty.	Bill Amount (Rs.)	•	Actual Expenditure (Rs.)	Bill No. & Date
Total Expenditure						
Total amount recei	ved :			Cheque	Nos. & Date :	
Amount Due :						
Countersigned by (Accounts)/Account		dinator	`	gnature of N	· ·	

#### Annexure-VII

# 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. For this activity, a Research Advisory Committee under the Chairpersonship of Secretary (DWS) has been constituted primarily to promote research and development activities for the Mission as well as the State Governments.

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 premier technical institutions within the State. The network of technical institutions may follow the guidelines issued by the Mission from time to time for effective implementation of the rural water supply programme. R&D Cells are also required to be in constant touch with the Monitoring and Investigation divisions and the Monitoring and Evaluation Study Reports for initiating appropriate follow up action. The R&D Cell should keep in constant touch with the documentation and information centre of the Mission and visit at the Mission's web site. The Mission will provide necessary assistance to the States.

### 2. Priority Areas

- Priority Area-1: Water resources exploration, assessment and exploitation related technology development Identification Techniques Remote Sensing/Geophysical Exploitation of NEWER Resources Springs/Tanks/Ponds/ Evaporation interception Roof top/Courtyard- Rainwater Harvesting
- Priority Area-2: Technology development for improvement in water extraction techniques Better hand pump
  Energy saving pumps/windmill/solar pumps/ hydraulic rams
  Improvement in tubewell efficiency (strainer, gravel pack)
  Improvement on rejuvenation techniques (caving of wells/clogged strainers/clogged infiltration gallery)
- Priority Area-3: 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 (Ferrocement)/
  Distribution pipes (PVC, bamboo).
- Priority Area-4: Technology for water quality

- enhancement for rural areas
  Development of Reliable Potable Water
  Quality Kit for testing of the following
  parameters: Salinity/Sulphate/Nitrate/
  Arsenic/Fluoride/Iron/Bacteria/Virus
  Development of Water Quality Enhancement
  Tablets/Powders/Portable Heaters/Traditional
  herbs and processes
- Priority Area-5: Watershed management to optimize drinking water supply Delineation and resource inventorying of the micro or mini watersheds Maximization of water conservation and minimization of environmental degradation like erosion, sedimentation, etc.
   Conjunctive use of water resources
- Priority Area-6: Water-health interaction in the socio economic cultural set up Interface problems between Engineers/Geologists/medical scientists on water and sanitation issues.

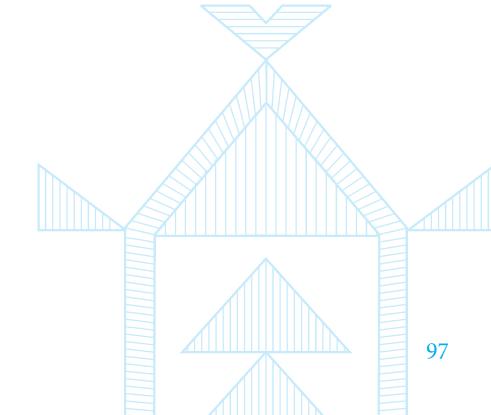
  Correlation between water constraints and quality of life

  Communication and social mobilization strategies.

 Priority Area – 7: Development of appropriate rural sanitation technology Design of improved leach pit Hygienic Rural Toilets Utilization of Kitchen Waste Protection of open wells/ponds

# 3. Approach

Thrust will be given on Technology development and demonstration, proving them in the field through long term trials and transfer of technology for large scale application. The Detailed guideline may be seen at the web site hhpt://ddws.gov.in under programme - R&D. The State Government may also take up R&D projects in consultation with STA under State Water and Sanitation Organization with the approval of SLSSC. However for taking up such R&D projects GoI guidelines issued by Department of Drinking Water Supply, Ministry of Rural Development needs to be strictly adhered to.



#### Annexure-VIII

# Institutional Set Up of Water and Sanitation Support Organization (WSSO)

### 1. Introduction

All State will have to set up Water and Sanitation Support Organization (WSSO) under State Water and Sanitation Mission (SWSM) to deal with CCDU, NRWQM&S (DWT Labs), MIS/ Computerization project, M&E and IEC&HRD (CCDU), R&D, etc as explained in para 9 of the guideline for which 100% fund is provided by Department of Drinking Water Supply, Ministry of Rural Development, Government of India. The constitution of the SWSM and other committees is indicated below.

# 2. Constitution of Water and Sanitation Mission (WSM) at the State Level

Ideally there should be a single department in the States/UTs looking after both water and sanitation. As a first step towards achieving this objective, it is proposed to have a Water and Sanitation Mission 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 institutionalizing community participation under Rural Water Supply Programme and Total Sanitation Campaign (TSC) under The Rural Sanitation Programme.

The State level Water and Sanitation Mission shall consist of :

- an Apex Committee headed by the Chief Secretary/Additional Chief Secretary and Secretaries in-charge of PHED, Rural Development (RD), Panchayati Raj (PR), Finance, Health, Education, 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 Mission activities and for convening the meetings of the Apex Committee. The Apex Committee shall meet at least twice in a year.
- an Executive Committee shall be constituted by the Apex Committee and shall be headed by an officer of PHED (or the Department concerned with rural water supply), not below the rank of Joint Secretary, who shall be its Executive Officer. Officers from the Departments of Rural Development, PHED(Chief Engineer), Panchayati Raj, Health, Education, Social Welfare, Information and. Public Relations shall be nominated by the respective State Departments and shall be the ex-officio members of the executive committee. Experts in the field of IEC, HRD, MIS, Media and NGOs not exceeding six, may be co-opted as members. It may be ensured that the strength of the Executive Committee does not exceed 15. The State HRD cells, IEC cells and MIS shall work within the State Water and Sanitation Mission.

• However, the States may continue with their existing institutional set up or constitute appropriate institutional set up as deemed fit, to supervise the implementation of the pilot projects at the State level, so as to demonstrate implementation of community based rural water supply programme in the pilot districts with a view to encourage PRIs to take up similar initiatives in other districts in conformity with the principles envisaged in the 73rd Constitution Amendment.

# 3. State Water and Sanitation Committee

An Executive Committee shall be constituted by the Apex Committee and shall be headed by the State Secretary PHED (or the Department concerned with rural water supply), and Engineer-in Chief as Member Secretary who shall be its Executive Officer. Officers from the Departments of Rural Development, PHED (Chief Engineer), Panchayati Raj, Health, Education, Social Welfare, Information and Public Relations shall be nominated by the respective State Departments and shall be the ex-officio members of the executive committee. Experts in the field of IEC, HRD, MIS, Media and NGOs not exceeding six, may be co-opted as members. It may be ensured that the strength of the Executive Committee does not exceed 15. The State HRD cells, IEC cells and MIS shall work within the State Water and Sanitation Mission.

# 4. Constitution of Water and Sanitation Mission at the District Level

The District Water and Sanitation Mission (DWSM) constituted at the district level shall be called as "PRAKALP", which shall be a registered society under the overall State laws and should function under the supervision, control and guidance of Zilla Parishad subject to the following:

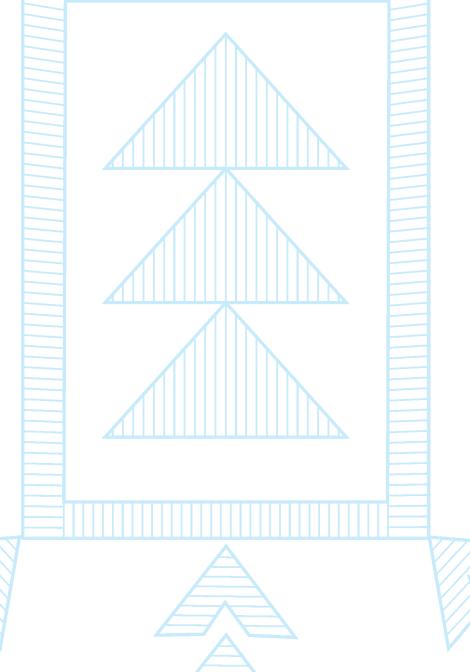
• Wherever Panchayati Raj Institutions are firmly in place and are ready and willing to

- take up the responsibility of effective implementation of Sector Reform Project and the PRIs are strong enough to do so, they may be allowed to implement the project in those districts instead of the DWSM. In such districts constitution of DWSM may not be mandatory. However, the districts need to ensure that separate bank account in State Bank of India or any of its Associate Bank is opened to receive the central funds and are not mixed up with other funds provided to the Panchayati Raj Institutions for carrying out other activities. Such districts may ensure proper methodology for ensuring proper and accurate monitoring and utilisation of the funds and intimate the mechanism to the Department of Drinking Water Supply. Government of India.
- Districts which do not have a proper PRI set up in place and desire to supervise the working of the DWSM through alternative mechanism, may prepare a detailed proposal explaining the mechanism through which the project is intended to be supervised and submit the same to the RGNDWM for consideration.

The Governing Body shall invariably 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/State Govt/institutional set up created at the State level (as the case may be) will be the Chairman of the Governing Body. The members would be - all MPs/MLAs and MLCs of the District; Chairman of the Standing Committees of the Zilla Parishad; District Collector/Deputy Commissioner, District Officers of Education, Health, Panchayati Raj, Social Welfare, ICDS, PHED, Information and Public Relation; Project Director, DRDA. CEO of the Zilla Parishad would be the Member Secretary. The Governing Body shall meet atleast twice a year. 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 Governing Body of the District Water and Sanitation Mission.

The actual implementation of institutionalizing community participation in rural water supply programme and TSC at District level would be done by the CEO of ZP/District Collector, as the case may be, and shall be the chairperson of the district level Water and Sanitation Committee (DWSC), comprising of the Executive Engineer of PHED/Executive Engineer, ZP; District Education Officer, District Health Officer (Civil Surgeon), Project Director DRDA, District Panchayati Raj Officer, District Social Welfare Officer, Community Development Project Officers (CDPOs of ICDS) and District Information and

Public Relations Officer. NGOs (not exceeding 3 in number) shall be identified by the District Water and Sanitation Committees and co-opted into the Committee as members with the prior approval of the Government of India. 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. No additional post shall be created for this purpose.



#### Annexure-IX

# State Level Scheme Sanctioning Committee (SLSSC)

One of the policy issues mentioned in Para 12.7 of 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 bottleneck in the execution of the rural water supply schemes and related software activities viz., CCDU, WQM&S, MIS, R&D, M&E, Support to STA and National Expert Group etc.

The delegation of powers is subject to the conditions the State Governments have to ensure that proper system of close monitoring and evaluation is in place. It is needless to mention that unless the State Governments furnish complete and timely information, it may not be possible for Government of India to regulate release of funds and specific schemes cleared under the delegated powers from year to year.

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 Rajiv Gandhi National Drinking Water Mission, 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 Group listed by RGNDWM, Gol
- Chief Engineer Planning PHED/Rural Water Supply Department; Member
- Chief Engineer, State Support Organization. PHED
- Joint Secretary, PHED
- Any other member (need based) nominated by State Secretary PHED.

All the RWS projects to be taken up by the State Government are to be approved by SLSSC. Before the RWS Schemes are approved by SLSCC it needs to be vetted by STA. Every year the State Government will have to prepare Annual Action Plan on CCDU, MIS and Computerization Programme, QWM&S and get it vetted by SLSCC including the financial norms which should be as per the guidelines.

#### Annexure X

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
	, 200 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 use of sanitary toilets and sound personal, home and community hygiene behavior.

### Commitment of the State Government

- 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 Bharat Nirman targets by 2008-09 for:
    - a) Coverage of uncovered habitations of CAP 1999 with availability of safe water to meet drinking and cooking needs (40 lpcd).
    - b) Address all habitations that have water quality problems.
    - c) Covering 'slipped back' habitations as surveyed in 2003, as per norms prescribed by the Government of India.
  - Give priority to habitations inhabited exclusively by SC/ST or having large SC/ST population.
  - Coverage of schools and Anganwadis where safe drinking water sources could not be provided under outlays allocated by the Ministry of Human Resource Development or awards of Finance Commission.
  - After coverage of all the NC/PC rural habitations with the existing norm of 40 lpcd with a source within 1.6 km/100 meter elevation, cover with relaxed norm of 40 lpcd with a source within 0.5 km/50 metre elevation subject to beneficiaries sharing at least 10% of capital cost and shouldering full responsibility for O&M, or with relaxed norm of 55 lpcd with a source within 0.5 km/50 metres elevation with or without home connections, subject to beneficiary sharing at least 20% of capital cost and shouldering full responsibility for O&M.

- 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 not only be maintained at the Xth Plan levels but would also be appropriately enhanced over the period 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 sourcestrengthening conservation measures, rain water harvesting and ground water recharge systems for source sustainability. This would be achieved by integrating schemes of other Departments also.
- 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 (once a quarter) the manner in which the process project is 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. These will also serve to guide the implementing agencies at the village/Block/District levels in this regard.
- 9. The State Government shall enact and implement law for effective ground water extraction control, regulation 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 will promote the principles of partial capital cost sharing in all new rural drinking water and sanitation schemes. This sharing may be in cash/kind/labour or a combination of these.
- 12. 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. Refer Annexure X (A) for guidance).
  - 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 by the PRIs/VWSCs.
  - Empowering PRIs/VWSCs to charge for the service provided.
  - Involving GPs in water demand management and conservation.

- Creation of a Village O&M Fund.
- · Capacity building of all stakeholders.
- Redefining role of SWSM
- 13. The State Government will delineate the role of the State Government for multi-village, multi-block and multi-district schemes and appropriately assign roles to various levels of PRIs in a phased manner.
- 14. The role of Department of Drinking Water Supply, Ministry of Rural Development, Government of India would be to provide necessary support to the State Government in their efforts.

#### Annexure X (A)

(For the guidance of States, following may be included while formulating the timetable prepared by the State to attain the agreements of the MoU.)

## 1. Policy Issues

The comprehensive policy on Drinking Water and Sanitation, linked to the existing State Water and Sanitation Policies, would address, inter alia, the following issues:-

- Vesting of Panchayati Raj Institutions (PRIs)/ VWSCs with functions and finances, and supported with functionaries to carry out the responsibilities of drinking water supply and sanitation schemes in planning, designing, implementation, operation, maintenance and management.
- Enaction and implementation of **law** in effective ground water extraction control, regulation and recharge by the State Government.
- Handing over of existing stand alone/single village rural drinking water supply schemes to the Gram Panchayats/VWSCs for operation and maintenance.
- Institutional strengthening and capacity development of the State, District, Block, Gram Panchayats and the community level institutions.
- Integration of water conservation and rainwater harvesting schemes with drinking water supply schemes.
- Integration of rural drinking water, sanitation, health, and hygiene programmes at the State, District, Block and GP levels.
- Evolving Capital cost sharing principles between the stake holders within the framework of the Centrally sponsored scheme.
- Delineation of the role of the State Government in respect of multi-village, multi-

block and multi-district schemes; water quality, system and source sustainability issues and providing technical, administrative and financial support to the GPs/VWSCs.

The comprehensive policy on Drinking Water and Sanitation Sector of the State Government shall be approved by the State Cabinet.

## 2. Institutional Setup

- 1. The State Government would be the coordinating agency for the project. Panchayati Raj Institutions should be the Implementing Agencies. A State Water and Sanitation Mission (SWSM) under the chairmanship of the Secretary/Officer of Secretary rank may be formed at the State level. The SWSM should be a registered society. The State Governments should provide necessary operational flexibility to the SWSM for integrated implementation of rural drinking water, sanitation and related issues. At the District level, the District Panchayat/Zilla Parishad should be created for convergence of water, sanitation and health programmes. At the village level Gram Panchayat/VWSC will be the Implementing Agency.
- 2. The **State Water and Sanitation Mission** (SWSM) could have the following functions:
  - Provide policy guidance on water, sanitation, health etc.;
  - Periodic review of implementation of the MoU signed with the Department of Drinking Water Supply;
  - Consideration and approval of all schemes pertaining to water supply and

- sanitation sector programmes funded wholly or partially by the Government of India or the External Funding Agencies;
- 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;
- arranging independent certification of the quality of construction of Swajaldhara projects;
- Integrating and operating communication and capacity development programmes for both water supply and sanitation.

The SWSM would have (i) **Apex Committee** and (ii) **Executive Committee**.

- 2a. The **Apex Committee** could be headed by the Secretary/Officer of Secretary rank with Secretaries in-charge of Rural Drinking Water Supply, Rural Development (RD), Panchayati Raj (PR), Education, Health, Finance, Planning, Information and Public Relations and a Government of India representative as members. In addition, three experts in the field of rural water supply and sanitation could also be made members of the Apex Committee. Chief Engineer of Department concerned with rural water supply and sanitation could be the Member Secretary of the Apex Committee. This Committee shall meet at least once in every quarter and not less than 4 times in a year.
- 2b. An Executive Committee with about 15 members shall be constituted to aid and advise the Apex Committee and shall be headed by the Secretary of the Department concerned with Rural Drinking Water Supply and Sanitation, and, an officer not below the rank of a Joint Secretary of the same department

- shall be its Member Secretary. Officers from the Departments of Rural Development, Chief Engineer in charge of Rural Drinking Water Supply, Panchayati Raj, Health, Education, Social Welfare, Planning and Finance, Information and Public Relations shall be ex-officio members. Experts, not exceeding six, in the field of drinking water, communication and rural development, community health and hygiene, community mobilisation, Media and NGOs may be co-opted as members.
- 3. At the District level, the District Panchayat/ Zilla Parishad shall perform all the functions which hitherto were being performed by the District Water and Sanitation Mission (DWSM). However, in States where elected District Panchayats are not in place, the DWSM as a society under the chairmanship of the District Collector could perform the functions. The **District Water and Sanitation** Committee (DWSC) will be headed by the CEO of the District Panchayat/DWSM. DWSC will have District level officers such as the Executive Engineers of Drinking Water, and District Panchayat; District Education Officer, District Health Officer, Project Director DRDA, District Panchayati Raj Officer, District Social Welfare Officer, and District Information and Public Relations Officer. In addition 3 members who shall be experts and/from reputed NGOs, may be coopted into the Committee as members with the prior approval of the SWSM. The Executive Engineer of Drinking Water or District Panchayat or an Officer chosen by the DWSM and concurred to by the Executive Committee of SWSM shall be the Member Secretary of the DWSC. The functions of the District Water and Sanitation Committee are as follows:
  - formulation, management and monitoring of projects;
  - Scrutiny of the project proposals,
  - selection of agencies and/NGOs and enter into MoUs for social mobilisation, capacity development, communication, project management and supervision,

- sensitizing the public representatives, officials and the general public about the Swajaldhara principles;
- engaging Institutions for imparting training for capacity development of all stakeholders, and undertaking communication campaign; and
- interaction with SWSM, State Government and the Government of India.
- 3a. VWSC under the Gram Panchayat will implement Swajaldhara schemes in the Gram Panchayat. Each Gram Panchayat taking up Swajaldhara schemes shall have a Village Water and Sanitation Committee (VWSC) under the chairmanship of the Gram Panchayat Pradhan/President/a Panchayat Member elected by the members of the VWSC for implementation of drinking water supply schemes of their own choice with active participation of the villagers.
- 3b. Technical and administrative support may be provided to VWSCs, with one Junior Engineer or equivalent rank handling a group of GPs. The composition of the VWSCs can be decided by the State Government under the Panchayat Act. However, women, SC, ST and poorer sections, subject matter specialists, NGOs, CBOs should be given due representation and at least one third members of the VWSC shall be women.

#### 3c. VWSC will be responsible for

- ensuring GPs to take up project implementation in each Gram Sabha meeting;
- 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);
- opening and managing bank account for depositing community cash contributions, O&M funds and management of project funds;
- signing of various agreements with the DWSC;
- · planning, designing, and

- implementing all water and sanitation activities:
- procuring construction materials/ goods and selection of contractors (where necessary) and supervision of construction activities;
- commissioning and takeover of completed water supply and sanitation works through a joint inspection with DWSC;
- 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;
- creating and promoting integration of drinking water, sanitation and hygiene in the Panchayat; and
- participation in communication and development activities in other villages.

### 3. Funds for Local/State Bodies

The State Government may set up the following **Funds** at the State level for the purposes specified against each of them:

- Operation and Maintenance Fund for undertaking maintenance and rejuvenation of existing assets before their transfer to the PRIs; maintenance and rejuvenation of multivillage, multi-block, multi-district schemes; providing one-time incentive to the Operation and Maintenance Fund of the GPs and other related activities.
- Quality Improvement Fund for ensuring supply of safe drinking water to the users through regular and periodic inspection and monitoring of water quality; for meeting the cost of institutionalization of community based water quality monitoring & surveillance system for setting up Quality Testing laboratories at the Block, District and State level; for meeting the cost of third party quality assurances of completed works; and for other activities related to quality of

drinking water, for providing sourcestrengthening measures in all existing schemes for undertaking research and other works, including pilot projects, relating to system and source sustainability.

• Mode of Funding – Funds mentioned above could be financed primarily by the State Government's own resources. Wherever, funds are made available by Government of India, External Funding Agencies, Local Bodies, contributions from institutions/individuals etc., the same shall also accrue to the Fund. The corpus of each Fund shall be determined by the State Government based on a realistic assessment of the State's needs and the norms fixed by the State Government and the

Department of Drinking Water Supply,
Ministry of Rural Development, Government of
India. The State Government shall transfer
funds from the State Budget to the Funds each
year. All Funds will be audited each year and
audit report put up to the State Government. A
copy of the Audit Report will also be sent to the
Department of Drinking Water Supply,
Ministry of Rural Development, Government of
India. The Funds can be held as interest bearing
Public Account in the State Treasury or in the
Saving Bank Account of the SWSM. Requisite
rules and regulation for operation of the Funds
will be prepared by the State Government.

#### Annexure-XI

# 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 - Normal Programme

DDP - Areas

Special assistance, if any

2. Amount released during the previous year

NRDWP - Normal Programme

DDP - Areas

Special assistance, if any

3. Total Available funds during the previous year

NRDWP - Normal Programme

DDP - Areas

Special assistance, if any

4. Expenditure during the previous year

NRDWP – Normal Programme

- (a) Expenditure for coverage related activities
- (b) Expenditure for Sub-Mission projects sanctioned after 1.4.99

(Nil for the year 1998-1999)

DDP – Areas

Special assistance, if any

5. Unutilised closing balance at the end of the previous year

NRDWP – Normal Programme

DDP – Areas

Special assistance, if any

6. Amount released during the current financial year:

NRDWP - Normal Programme

DDP - Areas

Special assistance, if any

7. Total available funds during the current financial year:

NRDWP - Normal Programme

DDP - Areas

Special assistance, if any

8. Expenditure upto the last month preceding the date of sending this proforma

NRDWP - Normal Programme

- (a) Expenditure for coverage related activities
- (b) Expenditure for Sub-Mission Projects sanctioned after 1.4.99

Name of the State/UT: (Rs. in lakh) DDP - Areas Special assistance, if any MNP 9. Provision during the last year 10. Expenditure incurred during the previous year 11. Provision during the current financial year 12. Expenditure upto the last month (i) Expenditure for coverage related activities (ii) Expenditure for Sub-Mission projects sanctioned after 1.4.99 TOTAL EXPENDITURE 13. Whether sites are selected under MLA Quota in your State. If so, details thereof. It may be confirmed that MLA Quota as not applicable for NRDWP. 14. 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 15. Expenditure incurred on O&M during the previous year MNP **NRDWP** % of the total expdtr. % of the total expdtr. Amount Amount 16. (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 vet to be started (d) Schemes cleared in the current financial year upto the month of (i) As far as possible 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 therefor may be given.
- 17. Number & Date of letter under which following reports have been sent:
  - (a) Monthly Progress Reports upto September
  - (b) Quarterly Progress Report ending 30th June
  - (c) Annual Report for the previous financial year
- 18. 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 statement indicating district-wise data of actual expenditure in the previous year and budget provision during the current financial year
  - (iii) Utilisation Certificate for funds released during previous year for the following activities along with unutilised balance as on 1st April of the previous year:
    - (a) Sub-Missions on:
      - (1) Eradication of Guineaworm
      - (2) Control of Fluorosis
      - (3) Desalination of water
      - (4) Removal of excess iron
      - (5) Any other item for which special assistance is given over and above normal NRDWP
  - (iv) Utilisation Certificate of actual expenditure under MNP, NRDWP, DDP and M&I Units in the previous financial year (signed by Engineer-in-Chief/Chief Engineer and countersigned by Secretary)
  - (v) State Govt. is giving priority to the unfinished works and that quality and durability of works is given due consideration

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

(vi) 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

(vii) Monitoring and Investigation Unit:

(Details of the posts, their designation, number and pay scales etc. in the annexure)
Year Amount released by GoI Actual Expenditure

- (a) Previous year
- (b) Current financial year
  - (viii) Certified that:
    - (a) All prescribed reports and returns completed in all respects are sent to the Rajiv Gandhi National Drinking Water Mission, New Delhi regularly as per schedule. Incorrect or inconsistent information is not sent.
    - (b) No post has been created or upgraded beyond the approved staffing pattern of M&I units without the prior approval of the Central Govt.
    - (c) The functions/activities of the M&I units have not undergone any departure from the original charter of these units. The existing functions may be given in an annexure.
    - (d) The computers provided by the Central Govt. are being utilised for computerised MIS for Rural Water Supply/Rural Sanitation Programme (physical and financial progress reports should be sent in computerised statements).
    - (e) Expenditure on M&I units in excess of the ceiling of Rs.10 lakh for States and Rs. 4 lakh per annum for UTs is met out of States/UT Govt. fund and not out of NRDWP funds.
    - (f) In case, Rural Water Supply Programme is implemented in more than one Department in the State, please certify that M&I units are coordinating activities and sending consolidated progress reports for the State as a whole.
- 19. 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 MNP NRDWP

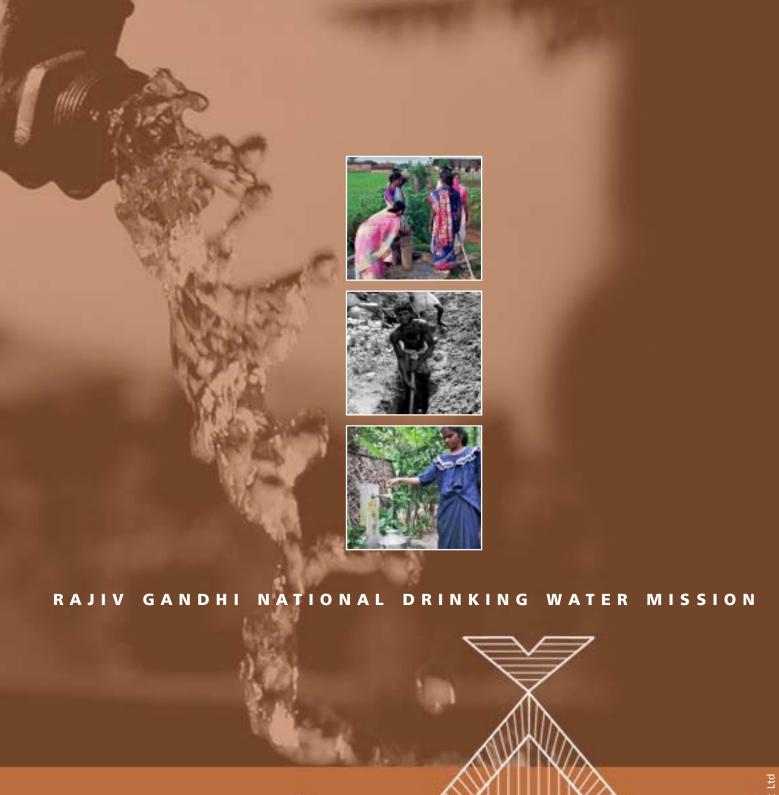
20. Funds utilised for Sub-Mission projects approved/sanctioned after 1.4.99:

S.No. Name of the Project Estimated Cost Expenditure Expenditure Expenditure of the Project incurred so far from NRDWP from MNP

#### Annexure-XII

# Form of Utilisation Certificate

S.No	Letter No. & Dat	re Amount
Certified that out	of a total fund available of	Rslakhs, including the Opening Balance a
on 1st April,	_ (year) and an amount of F	Rslakhs received as grant in aid sanctioned
during the year _	in fav	your ofunder the
Ministry's letter N	Io. given above, Rs	lakhs has been utilised for the purpose of NRDWP
		balance of Rs and it will be adjusted toward
the grant in aid p	ayable during the next year_	It is also certified that the expenditure
indicated above d	oes not include advances lyi	ng unutilised/treated as final expenditure and civil deposi
etc. treated as fina	l expenditure. The escalation	in cost of schemes has not been met out of the NRDWP
funds. No expend NRDWP funds.	iture on departmental/centa	ge charges/establishment costs has been met out of the
fulfilled/are being		n which the grant-in-aid was sanctioned have been duly cised the following checks to see that the money was was sanctioned.
Kinds of Chec	cks Exercised:	
1. Grant-in-aid	checked from the register ma	aintained.
2. Expenditure c	hecked from the register ma	intained.
Signature of Chie	f Engineer (PHED)	
Countersignature	of Secretary in-charge of W	ater Supply





Rajiv Gandhi National Drinking Water Mission Department of Drinking Water Supply Ministry of Rural Development Government of India

