



# Two Days Brain Storming Workshop on Revised Guidelines National Rural Drinking Water Program (NRDWP)

## REPORT

Venue: Indira Gandhi Panchayati Raj Sansthan, Jaipur

Date: - 17-18 April, 2009

Communication and Capacity Development Unit  
State Water and Sanitation Mission, Rajasthan



IIHMR,1,Prabhu Dayal Marg,Sanganer, Jaipur-302033

**Introduction**

The RGNDWM, DDWS, MoRD, GoI has revised the guidelines of National Rural Drinking Water Programme. The Guidelines have come into force with effect from 1<sup>st</sup> April, 2009. This will provide framework for implementation of drinking water systems from 2008-2012. The National goal is to now provide every 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 in all situations.

There is a paradigm shift in the thinking.

- The approach is now to ensure drinking water security at state, district and village level rather than providing a certain liter per capita per day.
- It is now very important to maintain portability, reliability both at production and consumption point.
- A habitation will be considered as covered only when each and every household get potable water.
- The state should transfer the water supply programmes to PRI's particularly Gram Panchayat.

Based on the above paradigm shift in policy the 'Accelerated Rural Water Supply Programme' has been renamed as National Rural Drinking Water Programme'.

### **Objectives of the workshop**

In the light of new guidelines a two days workshop was organized on 17<sup>th</sup> and 18<sup>th</sup> April, 2009 for senior engineers of PHED. Chief Engineers of WRD, GWD were also invited. Senior officers of Watershed department also attended the workshop. The workshop was presided by the Principal Secretary, WR, PHED and GWD.

The objectives of the workshop are as follows:

- To orient and sensitize the participants on NRDWP.
- Brainstorming on the provisions of the new guidelines and develop a common understanding at the departmental level for implementation of new guidelines.
- Change the mind set within the department in terms of convergence in water, sanitation and health.
- Highlight issues and solutions for inter departmental convergence.
- Preparation of action plan for WSS as per new guidelines.
- Finalization of future road map for implementation of NRDWP in the state.

### **Inauguration session**

Workshop started at 9.30 A.M. Mr. Hemant Joshi Executive Director, CCDU welcomed all guests and participants and honorable guest Mr. Ram Lubhaya Principle Secretary, WR, PHED & GWD, GOR. Mr. Joshi gave a brief introduction & objectives of the workshop. Mr. Agam Matur CE SP presented a bouquet to the chief guest.



**Key note address by Principal Secretary, WR, PHED & GWD, GoR.**

The address started with situational analysis of drinking water sector in the state. The main points are as follows:

**Sh. Agam Mathur presenting bouquet to Principal Secretary Sh. Ram Lubhaya**

- There is greater emphasis on digging of hand pumps and tube wells.
- Drilling technology has ruined our system.
- There are 193 over exploited blocks out of 237 blocks for ground water.
- Still water is transported in 6000 villages
- 83% water supply systems based on ground water as source.
- 86 desalination plants are lying defunct.
- 60% irrigation from ground water
- Data provided by the department is delayed and inadequate. The picture of ongoing works is far from clear.
- 70% of water supply systems perform below designed service level.

In the light of this background then he went on to add that there is a need for greater emphasis on change of mindset with respect to drinking water. The senior engineers of the department are water managers’ not mere technocrats. There should be greater emphasis on rain water harvesting for supplying potable drinking water. 8-10 liter per capita per day is required for drinking and cooking. Rain water is the purest form of water. The work done by Mr. Rajiv Gupta on rain water harvesting is an eye opener. He encouraged the participants to visit this project.



**CE (R) & TM (RWSSMB) at Dias**

The Principal Secretary advised the participants to adopt a holistic view. He said only supply side management is not going to solve the problem. An equal emphasis is to be laid on demand side management also. He said management information system is very important. It helps in taking correct decisions. He advised the senior engineers of PHED to charter the new path in the light of revised guidelines for NRDWP. The emphasis is on treading the un-treaded path. We should ensure permanent drinking water security in Rural India. Unfortunately we have established so many departments in the field of water resource management, but despite efforts

lots of diseases are still around us. This is the real scenario of our state.

Due to this situation there are many roles and responsibilities that we have to play-

- It is essential that technologies that we use should be sustainable.
- Nature has given us endless resource to use them. It is our responsibility that we manage the resources properly.
- Skills and professional up gradation within department for qualitative management of all programmes/schemes is essential.

There are so many challenges which are to be met for improvement in water management. But unfortunately we are not ready to take these challenges. We should change our thinking and start asking various questions in our mind. This should start from top i.e. head quarter to grass root Level. This will help in meeting the challenges.

With these words the 1st session was completed.

He concluded the session by recalling the famous quote which he saw at Oxford University **“Any body who solves the problem of water should get two noble prizes, one for peace and the other one for water.”**

#### **Highlights of this session**

- Situational analysis of the present scenario.
- Suggestions about qualitative implementation.
- Vital roles of the department.

**Session I**

**Presentation by Mr. Agam Mathur (Chief Engineer, SP)**

**Concern topic –NRDWP-Modified programme.**

**National goal-**

Provide adequate water to every person for basic need on sustainable basis and meeting certain minimum water quality standards.

Basic Principles- Access to safe & adequate is right of every individual and government should give it highest priority.

- Emphasis is more on public private partnership rather than commercialization of this activity.
- Cross subsidy mechanism to ensure availability of safe &adequate drinking water.

**Vision –**

Permanent drinking water security in Rural India.

- Measure to improve existing water resources.
- Based on village level budgeting &security plans, conjunctive use of ground water, surface water and rain water.
- Guiding principle for community level plan: Portability, reliability, sustainability, convenience equity and consumer preference.

**Revised Criteria-**

- PRIs to plan, approve, implement, manage and maintain the in village water security system
- State government and /its agencies to arrange transfer of water to door step of village.
- Government to play roles of facilitator in capacity building of PRIs to hold these responsibilities.
- Reward good performance for sustainability.
- Availability of investment in all habitation.

**O&M Funds-**

- 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.



**Sh Agam Matur  
Chief Engineer (Special Projects)**

- 10% NRDWP fund will be allocated among states/UTs for O&M and states /UTs will make matching contribution, which along with fund provided under the finance commission's recommendations as grant to PRIs will be used to meet the O&M.

#### **Drinking water in school-**

- Part of work coverage of school accomplished through fund provided by 12th finance commission and rest to be covered under rural water supply programme expenditure sharing on 50:50 basis from NRDWP.
- The remaining rural schools and anganwadi are to be provided with drinking waters facilities.

#### **Modification-**

- Availability of safe and adequate drinking water to every rural house hold has been given the priority.
- The end ever is to be achieving drinking water security at the house hold level.
- Decentralized approach through PRIs and community participation.

#### **High lights of the session**

- Ensuring source security
- Revised criteria
- Flexible policy

#### **Session II**

#### **Presentation by Mr. D. Bharadwaj (Technical Member, RWSSMB).**

#### **Concern Topic- NRDWP-Planning Fund and Monitoring**

#### **Salient Features of NRDWP-**

- It envisages ensuring permanent drinking water security.
- Aim at ensuring security by undertaking measures to improve existing sources by conjunctive use of ground water, surface water and rain water based on village water budgeting.
- Shift from convectional coverage norms of IPCD to ensuring all water security.



**Sh Devesh Bhardwaj  
Technical Member, RWSSMB**

#### **Conjunctive water is define as-**

- Judicious use of ground water and roof water.
- Recharge ground water aquifers during monsoon.
- Store surface water as per terrain condition.
- Adopt roof water harvesting on a big way especially for scattered population.

- Revive traditional sources.

### Parameters to be studied for ensuring sustainability –

- Local available wisdom.
- Rain fall pattern total intensity no. of rainy days.
- Annual cyclic rainfall pattern.(10 years)
- Soil porosity and permeability.
- Nature of aquifer.
- Source survey.
- Evaporation and seepage rates.
- Water budgeting for HH security.
- Existing RWH structures and their functionality.

### High lights of the session-

- Parameters for ensuring sustainability.
- Methodologies for design of schemes
- Templates for collection demand side.

### Session III

### Presentation by Ms. Kathryn Harris (Specialist, WES, UNICEF)

### Concern Topic- Community Participation on Water and Sanitation Programme.



She started presentation from the question that “what is the result you want in a community managed water supply system”. She presented two case studies the First is “Swajaldhara” and 2nd is “Tamilnadu Water and Drainage Board.”(TWAD)

### Goal of the case study-

- Adoption of a responsive, adoptable approach along with community participation.
- Full owner

ship of drinking water assets to rest with appropriate level as the Panchayat.

<p><b>Ms Kathryn Harries</b> Specialist WES, UNICEF</p>
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### Conjunctive use of water is define as-

- Judicious use of ground water, surface water and roof water as per drinking water demand and availability, season only or monthly.
- Many structures provide both for ground water recharge and surface water availability.
- Use of new and renewable energy sources for pumping/ in situ treatment like solar disinfection, solar desalination etc.

- Store surface water as per terrain condition.

#### **Parameters to be studied for ensuring sustainability-**

- Promoting use of water saving, energy efficiency devices/fixers.
- Leak detection methods and prevention of leakage.
- Water management option for emergency situation.
- Climate change and its impact on drinking water sources.
- Suitability of locally available material.

#### **Challenges of us-**

- Mind setup of PHEDs
- Moving from service provider to facilitator mode.
- Community need and new sources.
- PHEDs always responsible for constructions and O&M.

#### **Certain solutions-**

- Improve methodology for working community.
- Trust in NGOs and community.
- Involve community from start.
- Create an enabling environment.

#### **Highlights of this session-**

- Background –Result based and right based.
- Community participation.
- NRDWP
- Challenges and benefits.

#### **Session IV**

#### **Presentation By Ms. Geetashree Thakur (Scientist 'C' from NIC, GoI.,Delhi.)**

#### **Concern Topic- on line Monitoring.**

- Last before 1996 the action was prepare considering census village as the lowest unit since census code provides population against the census village.
- Water quality and quantity of every delivery point to be tested by the community periodically as per the NRWQM&S guidelines.
- RWSP-NRWQMS-
- Water quality related entry.
- Bacteria test.



**Ms Geetashree Thakur  
Scientist 'C', NIC, GoI**



- FTK test.
- Laboratory test.
- Water quality test.
- For integration of data with other department like health, Panchayti raj, census etc.
- All reporting viz. the annual action plan and the physical and financial progress reports have to be sent online with immediate effect.
- These data along with action taken by the appropriate agency will be monitored online through the website.
- Highlights of this session.
- Record data, reports etc. through online.
- Importance of online monitoring.

**Day-II**

**April 18, 2009**

The second day of the workshop was started from 9:30AM. Firstly, Mr. Hemant Joshi welcomed all the participants and special guest Mr. Samuel (State chief, UNICEF, Rajasthan.) by Bouquet.

After this the 1st session was started.

### **Session-1**

**Presentation By-Mr. Hemant Joshi (Executive Director, CCDU.)**

**Concern Topic -TSC-Present Scenario, Constraints and Remedial measures.**

**Reform activities are-**

- Community Participation.
- Demand Responsive.
- Ownership of assets.
- Roles of government as facilitator.
- Integrated approaches.
- Sustainability.

Mr. Joshi presented the status of sanitation in Rajasthan, before TSC percentage wise achievements up to senses of 2001. He enlighten total no. Of IHHL, District wise no. Of Nirmal Gram Puruskar awarded 2006-2007, no. Of Nirmal Gram Puruskar, Details of school toilets achieved in Rajasthan, Details of Anganwadi toilets achieved in Rajasthan.



**Constraints: -**

- Mind setup of people.
- Ignorance about impact on health.
- Gender insensitivity.
- Fear of cost
- O&M problems
- Lack of efficient and effective delivery mechanism
- Lack of coordination among stakeholders
- Appropriate toilet option
- Lack of skilled manpower

**Lesson learnt: -**

- Need for professional human resources and information education and communication input at District level, DSU to be restructured.
- Capacity building of NGO sector in sanitation.
- Focus on above poverty line families.

- Exposure visit of PRIs.
- Promote composting and vermin culture
- Software components of sanitation to be emphasized in school sanitation
- The cost of anganwadi toilets is less, no dedicated cell in women and child department to monitor the progress.
- Objectively verifiable monitoring indicators required to be developed the state level
- Arrangement of water for flushing.

**Strengths: -**

- Political consensus on sanitation
- The of TSC monitored at the highest level
- Nirmal Gram Puruskar Yojna is very good incentive under TSC
- The incentive to BPL families increased to 2200 from 1200
- Conversance between NRHM and TSC established.
- Very strong partnership with UNISEF

**Innovations: -**

- Organization of IEC workshop a Nirmal Gram Awarded Village
- Encouraging corporate partnership in TSC
- Leveraging funds of NAREGS of IEC in TSC
- Using the Sarpanch's of NGP awarded gram Panchayats as resource person
- Introducing change management strategy
- Setting up CCDU in health management institute.
- Using NRHM funds for water quality and sanitation.
- Action research in GPs.
- Holding CCDUs monthly meetings in NGP awarded GPs.

These are the basic issues that enlightened by Mr. Joshi.

**Highlight of this session-**

- Reform initiatives.
- Constraints.
- Strength.
- Major objective.

**Session- II**

**Presentation by- Mr. Devesh Bhardwaj (TM, PHED)**

**Concern Topic- Village and district water plan security.**

### **Objectives of water security plan.**

- Planning, designing, implementation and O&M to ensure sustainability (source, system, financial and environmental)
- Involvement of community in the entire process
- Taking advantage of local wisdom and mordent technology



**Sh Devesh Bhardwaj**  
**Technical Member, RWSSMB**

### **Village and district water security plan.**

- The VAPs shall be developed in close consultation with the community and PRIs particular with respect to technological option, O&M requirement and willingness of the community for O&m
- 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 rural water supply.
- Appropriate institutional support is required to facilitate the process of preparation of village action plan which is to be prepared by the village.
- Community /pani samiti with the help of NGOs.
- The DWSP will mention about fund availability from different sources.

Planning, Fund and monitoring

### **Comprehensive water security action plan:-**

- **A CWSAP will be prepared for the state each year**
- CWSAP shall include: -
  - Likely fund availability
  - Ongoing schemes, status fund requirement
  - Augmentation schemes, fund requirement
  - Support activities and fund requirement

### **Funding under NRDWP – criteria and cost sharing**

*Likely fund allocation to be worked out on following criteria-*

- 60%wtg rural population
- 10%wtg rural population managing DWSSs
- 30%wtg for DPAP area of the state

The ceiling and cost sharing will be as follows-

- Coverage: 38%; 50:50
- Quality: 20%; 50:50

- O&M: 10%; 50:50
- Sustainability: 20%; 100:00
- DDP: 5%; 100:00
- Support: 2n%; 100:00
- Natural calamity: 5%; 100:00

#### *Flow of funds-*

- The state water and sanitation mission shall select a Bank branch with internet connectivity at the state head quarters, of any public sector bank or institutional based bank for maintaining the programme account, support rural drinking water programme
- Online data entry for transaction by PHED, SWSM and bank.
- Bank will credit the support a/c of SWSM.
- State will credit programme a/c as funding pattern.

#### Funding under NRDWP-release-1

- State will request for allocation under union components
- Its release (50%) automatically if 2nd installment has been drawn previous year
- 2nd release, on state's request made by 31st December. and on receipt of specific proposals, utilization of 60% of available fund and matching assets, AG certificate up to year, presenting previous year, Certificates of unfinished work to be given priority and all schemes sanctioned by SLSSC6 month ago have been commenced.

#### **Funding under NRDWP –release-2**

- Online reporting is ensured
- Carry over fund more than 10% shall not be allowed
- NRDWP fund cannot be utilized against cost over runs

#### **Social audit and community monitoring-**

- V\ consumer groups to monitor demands v\s need and coverage.
- CBM shall provide information of community need.
- Social audit narrow down gap between PHED's perception of service provided and consumer's satisfaction and to ensure quality and proper fund utilization.
- Local yard sticks to be developed for monitoring indicators of consumer satisfaction.
- Parameters of social audit may be access and usages, quality, quantity, reliability, responsiveness and users satisfaction.

#### **Highlights of this session-**

- Objectives
- Village action plan
- Funding under NRDWP etc.

### **Session- III**

#### **Presentation by Mr. Chhabra. (Chief chemist, PHED)**

#### **Concern topic-NRDWQM&SP-Present scenario.**

#### **Background**

The National rural drinking water monitoring & surveillance programme was launched in 2006. with the prime objective of institutionalization of community participation of 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 supplies 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.

#### **Guidelines:**

- The programme aims at providing safe drinking water in rural schools.
- All sorts of treatment technologies, relevant to the removal of chemicals.
- Vide sensation orders no. G-11011/4/2008 DWS-II dated 22.01.2009

#### **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 the 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.
- 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.

#### **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 Centers (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 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.

**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.

**Highlights of this session-**

- Guidelines
- Strategies
- Funding, etc.

**Session- IV**

**By Mr. Hemant Joshi. (Executive Director, CCDU)**

**Concern topic-NRDWQM & SP-HRD and IEC Activities**

**Objective of the Programme:**

- Monitoring and Surveillance of all drinking water sources in the country by the community.
- Decentralization of water quality monitoring and surveillance of all rural drinking water sources in the country.
- Institutionalization of community participation and involvement in PRIs for WQM&S.
- Generation of awareness among the rural masses about water quality programme and water born diseases.

**Components of the Programme:**

- IEC
- HRD
- Community Contribution for O&M
- Strengthening of labs and administrative expenses.

**Strategy:**

- Linkage of Water Quality Monitoring and Surveillance at all levels. (Top to Bottom).
- Identification/Registration of safe drinking water sources in all rural habilitation.
- Taking up IEC activities involving PRIs, Co-operatives, Women Groups, SHGs, and NGOs.
- Training of district level, block and Gram Panchayat level.

**HRD and IEC Activities:**

- Two days training at block level selection of GP level workers and one panchayat coordinator.
- HP

- School Teacher
- Students
- ASHA
- AWS

**IEC Activities:**

- Twelve slogans in each village (4' x 2').
- One wall painting each village (12' x 8')

**HRD Training (Programme up to March, 2009)**

- State level lunch of NRDWQN&SP.
- District level lunching of workshops 32 head.

**Action Point for future Plan:**

- HRD activities to be taken up in 11080 villages.
- Review and Impact assessment of the programme with UNICEF support.
- Consumption and Treatment to be focused.

**Punch line:–**

“पियो हमेशा शुद्ध जल, रहो स्वस्थ हर पल।”

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*After this motivational speech Mr. Joshi welcomed to Principal Secretary, Mr. Ram Lubhaya. After this the 5th session started.*

**Session V**

**Presentation by Mr. Tarun Toshniwal (Senior Technical Director, Dep. of NIT.)**

**Concern topic -Computerization and MIS.**

The Government of India will continue to practical 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 with the priority on deployment of state MIS, capacity building, content management, compliance with census administrative codes and sharing the information in public domain through state PHED/RWSS website level in the remain states.

**Strengthening of Application Software-**

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 future funding under these guidelines-

- Finance and works accounting.
- Water quality monitoring & surveillance programme.



- Scheme /assets and programme management.
- Habitation data with 100% linkage to census 2001 data.

#### **Files and monitoring-**

- Monitoring of letters of honorable Cm, minister, chief security and others.
- Day wise pendency, officer wise pendency.

He enlightens that how can we maintain dispatch and order reports in soft ware. General information, recruitment, family, nominee, training, ACRs, awards promotions, transfer additional changes etc.

After this the 6th session was started.

#### **Annual maintenance-**

Comprehensive Annual maintenance contract (AMC) should be entered in to by the respective Sate/UT Governments/ Agencies with the selected vendor or any other appropriate agency.

#### **Highlights of this session-**

- Strengthening
- Files and monitoring
- Importance of computerization etc

#### **Session- VI**

#### **Presentation by Prof. Rajeev Gupta (Prof. of Civil Engineer)**

#### **Concern topic-Rain water harvesting scheme**

#### **Objective of the Programme:**

- It is proposed to implement a comprehensive scheme of rainwater harvesting in 100 villages of Rajasthan, India for eradication of day-today use water scarcity.
- Along with the scheme a complete technology and methodology has to be developed which can be implemented in other areas of the world as per requirement to strikes.

#### **BITS: Scheme Feature:**

- It is a long term vision
- Neat and Clean technology.
- It is participatory. The community to be involved.
- It minimizes health hazard.
- Costly still affordable on ground of potable water.
- Modular and broad based integrated

## Concluding Session

### Address of Mr. Samuel, UNICEF Chief, Rajasthan

In his address UNICEF Chief spoke on the following points:

- Perception of community is important for ensuring sustainability in Water & Environmental Sanitation.
- We should fulfill our commitment to community as per the new guidelines.
- UNICEF to work as a lighthouse for Government in water and sanitation sector.
- It will always be our attempt to fulfill all the challenges given to UNICEF by Government.

## Road Map

### Presented by Devesh Bhardwaj, Technical Member, RWSSMB

A road map for the future presented by Mr. Devesh Bhardwaj, Technical Member to the Principal Secretary WR, PHED & GWD, Government of Rajasthan as under:

S.No.	Activity	Priority I for Tanker Fed Habitation	For Other Habitations
1	Preparation of Village Action Plan	30.6.2009	30.6.2009
2	Preparation of DPR's	30.5.2009	-
3	Vetting of DPR by State Technical Agency	7.6.2009	-
4	Sanction of Schemes	15.6.2009	-
5	Execution	31.3.2010	-
6	Preparation of District Action Plan	-	30.7.2009
7	Preparation of Comprehensive Water Security Plan	-	30.8.2009
<b>OTHER WORKS</b>			
8	Entry of WSS sources in NIC MIS software	30.6.2009	-
9	Entry of Bacteriological/Chemical Analysis results a) For PHED Sources	30.6.2009 onwards	

	b) For other Sources	With immediate effect	
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**Valediction:**

**Sh. Ram Lubhaya,  
Principal Secretary, WR, PHED & GWD**

In valediction note Principal Secretary, WR, PHED & GW, Government of Rajasthan gave directions to the participating PHED Engineers and asked them to accomplish the following:

- The water supply schemes having rain water harvesting component for drinking and cooking requirement should be prepared for 6000 villages based on rain water harvesting where transportation of water is taking place now. The scheme should be submitted and to be approved by SLSSC and sent to GoI by July, 2009.
- All ACE, SE to supervise and monitor the schemes/programmes and a copy of tour reports, minutes of the meetings to be sent to Principal Secretary. The report will read and comments will be conveyed on every report and minutes in writing.
- One model scheme to be submitted by ACE for Rain Water Harvesting from every region in the month of May itself.
- Scheme wise source data entry to be completed by June. If it cannot be managed at departmental level the same can be outsourced also.
- The Rain Water Harvesting model developed by Prof. Gupta of BITS, Pilani is an eye opener. The interested engineers can visit the project and see for themselves the kind of work done. This will help in preparing Rain Water Harvesting schemes and sustainability of drinking water.
- Average rainfall data should be used not the minimum for designing of Rain Water Harvesting Schemes/structures.
- For sustainability of drinking water Rain Water Harvesting structures can be constructed for cluster of 5-7 houses in villages also.
- Pali city is facing problem of scarcity of drinking water. Rain Water harvesting plan for Pali city should also be prepared.
- Proper liasoning and briefing of press to be ensured as lot of negative reporting is taking place. A time-to-time briefing to media about the schemes and programmes should be properly conveyed to media. ACE & SE should personally ensure this.
- Letter of Credit will be directly issued to all XEn.s from CE office.
- He thanked UNICEF for quick response on issues agreed with them.
- The senior engineers should pay utmost attention to court cases, Vidhan Sabha questions and assurances.
- The road map outlined in the work shop should be strictly adhered to.

**Finally vote of thanks was given by Mr. Agam Mathur, Chief Engineer, Special Projects, PHED.**