Project Completion Report

Capacity Building of Government Engineers on Water Programme

Project Supported by

Ministry of Drinking Water and Sanitation Government of India

Project Phase: 9th June 2012 to 31st March 2013

Submitted by

Water Sanitation and Hygiene (WASH) Institute

7/45E Srinivasapuram, Kodaikanal – 624 104

Tamil Nadu

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Name of the organization	:	**WAter, Sanitation and Hygiene Institute**
Address for Communication	:	7/45-E, Srinivasapuram Shenbaganur Post Kodaikanal 624 104
Title of the project	:	Capacity Building of Government Engineers on Water Programme
Project No.	:	7798
Project Period	:	9th June 2012 to 31st March 2013
Reporting Period	:	1st July 2012 to 31st March 2013
Major activities Planned	:	1. Four day training Course on Community Based Water Security Plan and PRA- 6 nos. for the four states, Jharkhand, Orissa, UP and Rajasthan. 2. Three day Training on Water Quality Monitoring and Management for Jharkhand -2 Nos. 3. Three day Training on water Supply and Management Orissa- 1 No. 4. Three day Training Course on Hand Pump Mechanic training and Maintenance and Management-UP 1 No.
Activities Completed	:	➢ 6 batches of training course on Community Based Water Security Plan and PRA – for the states of Uttar Pradesh(2), Rajasthan(2) and Jharkhand (2). ➢ 2 batches of three day Training on Water Quality Monitoring and Management for Jharkhand ➢ One batch of training on Water Supply and Management for Jharkhand ➢ One batch of training course on Hand pump Mechanic training and Maintenance and Management for Uttar Pradesh.
Amount approved by Plan India		**Rs.42,16,400**
Amount utilized	:	**Rs.27,78,437/-**
Accounts statement	:	Audited statement attached

Background

WAter, Sanitation and Hygiene (WASH) Institute is a non-profit training and development organization dedicated to provide practical solutions to a wide range of water, sanitation, hygiene and environmental issues in India and the neighbouring countries.

Plan India/WASHi has been recognized and approved as a Key Resource Centre (KRCs) by MDWS, Government of India wide their letter no: W-11033/26/2009/WQ; Dated 01/02/2010.

As a KRC, WASH Institute (WASHi) had completed one series of Water trainings earlier. A second proposal was submitted on various trainings related to Water to the Ministry of Drinking Water and Sanitation (MDWS) through Plan India which was also sanctioned in June 2012. MDWS entrusted the responsibility to Plan India vide their sanction order **No.W-11012//02/2012/W.Q. dated 08/05/2012 (Sanction order No-32)** to implement and manage the training project through WASHi at a total amount of **Rs.42,16,400.**

Programmes planned as per the sanction are as follows:

Title Of Program	Target Groups	Target States	Duration of days	No of batches
Training Course on Community Based Water Security Plan and PRA	Engineers from PHED and Water Boards / Jal Nigams from states and UT	UP, Jharkhand (JHK), Rajasthan, Orissa,	4-days	6
Training on Water Quality Monitoring and Management	Govt. Engineers / PRI and NGO representatives	Jharkhand	3 days	2
Training on water Supply and Management	PRI / VWSC / NGO representatives	Orissa.	3 days	1
Training Course on Hand pump Mechanic training and Maintenance and Management.	Engineers from PHED and Water Boards / Jal Nigams from states and UT	UP	3-days	1

On getting the sanction orders efforts were made by WASHi team in communicating to the government departments of the four states seeking dates for the training. WASHi also identified the suitable list of resource persons, field exposure, and other logistics and resource materials for the conduct of the training.

Programmes conducted

10 training programmes were conducted for which the detailed report is given.

- 6 batches of training course on Community Based Water Security Plan and PRA – for the states of Uttar Pradesh (2), Rajasthan (2) and Jharkhand (2).

- 2 batches of three day Training on Water Quality Monitoring and Management for Jharkhand
- One batch of training on Water Supply and Management for Jharkhand
- One batch of training course on Hand pumps Mechanic training and Maintenance and Management for Uttar Pradesh.

Sl.No	Name of programme	Dates	Venue	No. of participants	Remarks
1	Training course on Community Based Water Security Plan & PRA tools completed for Jharkhand	21-24 August 2012	Rajasthan	29	--
2	Training course on Community Based Water Security Plan & PRA tools completed for Jharkhand	3-6 September.2012	Jharkhand	28	--
3	Training on Water Quality Monitoring and Management for Jharkhand	7-9th September 2012	Jharkhand	28	--
4	Training on Water Quality Monitoring and Management for Jharkhand	10-12 Sep 2012	Jharkhand	21	--
5	Community Based Water Security Plan and PRA Tools	16-19th January 2013	Jharkhand	30	As dates were not given by Odisha, training shifted to Jharkhand
6	Community Based Water Security Plan and PRA Tools	28-31st January 2013	Rajasthan	37	As dates were not given by Odisha, training shifted to Rajasthan
7	Community Based Water Security Plan and PRA Tools	7-9th February 2013	Uttar Pradesh	33	4-days training converted to 3 days on the request of UP Govt.

8	Community Based Water Security Plan and PRA Tools	21-23rd February 2013	Uttar Pradesh	35	-do-
9	Training on water Supply and Management	28th Feb-2nd March'13	Jharkhand	37	As dates were not given by Odisha, training shifted to Jharkhand
10	Training Course on Hand pump Mechanic training and Maintenance and Management.	14th Mar'13-16th Mar'13	Uttar Pradesh	34	
Total				**312**	

Details of each training program conducted are as below:

Report-1
Title: Community Based Water Security Plan & PRA Tools
Date : 21st to 24th August 2012
Venue: Hotel Jaipur Palace, Jaipur, Rajasthan

A four days training programme on "Community Based Water Security Plan & PRA Tools" covering also the topics on Water Budgeting, and Demand Calculation was planned during 21st –

24th August 2012 at Hotel Jaipur Palace, Jaipur. **29 participants**, engineers from P.H.E.D and officials from CCDU participated.

The four day training included theoretical and practical knowledge sessions with participatory games and films on the subjects for three days, while the fourth day was spent in village for use of the PRA tools and exercises.

Day-1: 21st Aug 12

The Day one of the Programme started with Training Registration, followed by the "Deep Prajwalan ceremony" a divine start by the hands of Shri Hemant Joshi, Executive Director, Communication & Capacity Development Unit, Jaipur area, which continued with his Inaugural Speech putting light on the need of such training sessions, need of changing the overall planning while designing & execution of any Water Supply Scheme through PRA methods of involving Community for effective project planning, implementation and monitoring of water security project.

Introductory game (ice breaking) & Training Expectation:

Post Inaugural session, the proceedings were taken over by Dr. S. Rajendra Kumar, training instructor, WASH, who created a unique round of introduction of participants by distributing them a signature Paper, jotted with few statements which the participants were asked to get signed by the co participants, whom they find most suitable for that category of statement. It was an awesome start of getting a natural & self-driven introduction from all participants.

The session moved ahead with a team work assignment, by four teams consisting of six members each. Each participant was given a "key topic" which the team as a whole has to discuss & compile on charts to be presented by the team. This was a successful ice breaking start, to acquaint the participants with their individual stand on the core topics to be discussed in detail in the coming sessions.

Technical Sessions:

Session – 1: Sector Overview, Government Policies & MDGs and their linkage with Safe Drinking Water

These topics were handled by Dr. S. Rajendra Kumar. With a bar chart he presented how the earth would suffer from acute scarcity of water in near future since then the supply would become less than 1000 cubic meter per capita per annum.

Session – 2: Fresh Water Scenario in India – Special reference to Rajasthan

Post lunch session was started with the presentation of Dr. Suneet Sethi, Consultant HRD, CCDU Jaipur, giving an introduction to Water Security, covering the topics of Fresh water Scenario in India, Water crisis in India, Challenges in achieving water security to Communities.

Session – 3: Fresh Water Scenario in India – Special reference to Rajasthan

This topic was also taken by Dr. S. Rajendra Kumar, who explained Water Quality Problems Issues, role of Community as a whole in coping up with these Challenges, and the need of modelling an approach where the Government and community go hand in hand, for effective planning, implementation & execution of Government Schemes. The session was concluded with a healthy discussion and suggestions for the urgent need of rejuvenation of traditional Engineering and management Skills.

Day-2: 22nd August 2012

The day started with a recap of the earlier day learning.

At the onset of the day Dr. Rajendra Kumar involved the participants enthusiastically in introductory game of " No. 7" and tried to procure their attentiveness in the house.

Session – 4: Key steps in Community Water Security Plan

Dr. Rajendrakumar explained the steps involved in Community Water Security Planning. Initially he explained about Importance of Planning process, major steps in planning; starts with calling of Gram Sabha, formation of Village Water and Sanitation Committee, involvement of stake holders, community mapping, field survey, data collection, parameter to be looked in the field, data analysis and proposal development.

Session – 5: Why Participatory approaches? What does participation mean? Community Mobilization tools/ Participatory Rural Appraisal tools and techniques

Mr. Hemant Khosla started the presentation with the "Hare and the tortoise" story & its modified versions in today's competitive scenario. An initial requirement for successful programmes requires leadership, and team work with effective attitude. Mr Khosla explained SWOT analysis in the light of attitudinal change. He further moved to PRA, its historical background, project cycle, its need and duration of involvement. Mr Khosla mentioned that Information → Knowledge → Experience of all are needed for problem solving. Everyone should be participating for the participatory exercises.

Pre- lunch session halted with the RRA V/S PRA.

In the post lunch presentation, Mr. Khosla initiated it with "one two three finger clap game". A low cost SARAR tools was practically demonstrated to the participants to inculcate the ways of how to make people speak and understand the psychological aspects of the study area with pictures (based on themes) and characters.

With an interaction session with Mr. Mishra and others many bottlenecks during and post PRA were discussed. In the concluding hour practical tips to conduct the rural appraisal were elaborated. The session ended with good note to bring changes with a hope to get people participation in village re-engineering.

Day - 3: 23rd August 2012

Third day session begin with the recap of previous day learning. Every participant spoke 2-3 lines in recap session.

Sessions – 6: Water Budgeting, Demand Calculation and Rain Water Harvesting

Dr. Ajay K. Upadhyay, environment consultant and Lab Incharge, PHED, Patna, Bihar, started the new session on 3rd day plan. He talked about village water security plan. why is it needed? How should we get started? etc. Basic agenda of the planning is to ensure optimum utilisation of available water to meet the daily demand or requirement of various users.

Back to back he gave presentation on the water budgeting, demand calculation process etc. As water is used for different purposes by humans like Agriculture, industries, domestic purpose & to overcome all this requirement water budgeting is needed, which is prepared by estimating availability of water from the surface, sub surface sources & rain water harvesting.

After this part of session tea break of 15 min is held for refreshing participants. Then Dr. Rajendra Kumar taught about the calculation of demand of users and storage capacity of rain water harvesting structure. Every participant performed in this exercise.

In this session some audio visuals were shown by WASH institute on disaster management, on water scarcity & how people sort out/ overcome from this problem, rain water harvesting and sanitation and hygiene of village were also shown.

Session – 7: PRA Tools

Post lunch session started with presentation of Mr Hemant Khosla about PRA tools.

PRA tools includes making of community mapping, seasonality, venue diagram, livelihood analysis, questionnaires & most important SARAR tools. SARAR is a kind of PRA tool in which people are made to speak more & more about existing condition in all aspects of their village.

Day- 4: 24th August 2012

Fourth day of the training was basically a practical test of how much, participants have imbibed in previous three day training session. Before heading towards field, a brief overview of the village was delivered to the participants by Mr. Ajay Dhaka, AE, PHED, Dudu, Bisalpur, as was collected by him from site. Compiling the basic information in the cache memory, the team boarded bus, and moved ahead, for practically testing the PRA tools in field and its extent of success in designing a successful scheme for any village. The bus moved from Jaipur to Ajmer, national highway NH-8, travelling 40 Km, team reached village "Mehla", 8 Km right from which was the "Kotjewar Village", the destination site, where the team was very warmly received by the Gram sabha members, waiting in the Shiva temple of village.

Before leaving for PRA analysis in village, the Gram sabha members briefly informed the team about the body composition of village. As was told, Kotjewar village falls under the territory of "Jharna Panchayat", other villages being Jharna, Dewla,& Kesrisinghpura. The Kotjewar village, is broadly consisted of four Dhanis: a) Bhopo ki dhani, b) Marwalon ki dhani, c) Meenaon Ki dhani, d) Dewatwalon ki dhani (Lakhon ki dhani). To reach all four dhanis, the entire strength of participants was divided in four equal & equitable groups with six members each. Each team after, completion of PRA tool analysis over respective dhanis, returned back to Board bus. The team reached back the Jaipur Palace by 2:45 PM, where everyone was seen engrossed in their analysis discussion, along with taking lunch.

Post lunch, a poster presentation was made by each team, reflecting village mapping & other salient features, which they have collected from Kotjewar. The presentations thereby reflected the true strength of PRA tool. Information collected were about the advent of village, somewhere more than 100 years back, the village was consisted of two ponds (Talaabs), three Anicuts, and one Anganbari. Since year 2002, the village was entirely covered with handpumps as water supply scheme, but gradually as the water started suffering with high TDS & Fluoride content, the need was felt for some other drinking source, which was fulfilled by PHED, by getting drilled one 200 mm diameter tubewell in Borage Village, from which water is collected in GLR (Ground Level reservoir), located centrally in Kotjewar village connected through 10 Km long 90 mm PVC pipeline network, from which the entire Water distribution network is laid in the village, with tap connections in each household.

Other than this, among other Govt. Schemes, were 5 stand posts, 1 single phase Tube well and 13 hand pumps, to facilitate the living of villagers.

Feed Back from the Participants:

Valedictory:

Shri Hemant Joshi, Executive Director, Communication & Capacity Development Unit, Jaipur area, felt immensely satisfied on the purpose of conducting such trainings. After that, the session of training was concluded, distributing certificates and CDs, consisting of training material in soft copy.

The training session got over, but surely, as was reflected on the faces of participants, that it had successfully ignited the hunger of Knowledge and consumer satisfaction among them.

Report -2
Title: Community Based Water Security Plan & PRA Tools
Date: 3rd to 6th September 2012
Venue: ViSWA Training Centre, Ranchi, Jharkhand

Introduction

Four days training programme on "Community Based Water Security Plan & PRA Tools" with Water Budgeting, Demand Calculation and PRA tools was planned during 3rd – 6th September 2012 at ViSWA Training Centre. In the training programme an overall **29 participants**, which includes engineers from P.H.E.D and officials from SWSM, Jharkhand participated.

Four day training included theoretical and practical knowledge sessions with participatory games and films on the subjects for three days, while the fourth day was spent in village and Community Water Security Plan was developed in Hesla Village, nearby Ranchi area.

Day-1: 3rd Sep 2012

Day one of the programme started with Training Registration, followed by Inaugural session. During the Inaugural sessions Dr. S. Rajendra Kumar, delivered the welcome address and a brief introduction was made about WASH Institute and Plan India. The inaugural address was given by Mr. P.C. Choudhary, Director, (PMU) chief guest of the function. Also, Mr. Manoj Kumar Choudhary, Deputy Director and Dr. Nitish Priyadashi, Environmentalist facilitated the inaugural function.

Introductory game (ice breaking):

Post Inaugural session, the proceedings were taken over by Dr. S. Rajendra Kumar, training instructor, WASH, Kodaikanal, a unique round of introduction of participants by distributing them a signature paper, jotted with few statements which the participants were asked to get signed by the co participants if the statements were true and found suitable for that category of statement.

Session 1: Introduction to Water Security

This session was handled by Dr. Nitish Priyadarshi. He started session with the information on traditional water conservation strategies, on how the system was constructed, operation and maintenance. The water conservation techniques have resulted in surplus water availability during ancient days. But present increasing population overexploitation of surface and ground water, Industrial growth, increased agricultural activities was reducing the fresh water sources. Moreover the increasing wastewater (WW) and improper disposal WW has polluted the fresh water reserve.

Other than many of the habitations particularly in Northern India are severely affected by the contamination of Arsenic, Fluoride, Iron, and Nitrate.

In addition he added data on fresh water demand and freshwater availability in India and Jharkhand. Water Crisis is a major problem all over India. Thus it has resulted in water conflicts among states and some places even the Panchayat level. The community water security is the need of the hour and the role of engineers is imperative to achieve water secured villages. If we work on this direction with community we can solve many future problems regarding water.

Session 2: Sector Overview, Government policies & MDGs and Linkages with Safe Drinking Water

The second technical session began with Sector Overview, Government Policy & Millennium Development Goal and Linkages with safe drinking water presented by Dr. S. Rajendra Kumar. With the help of a bar chart he presented the details.

Session 3: Water Quality problems and Issues – Physical, Chemical and Biological Problems and Treatment methods

This session was handled by Dr. Nitish Priyadarshi, a detailed research study report on water contaminations in Jharkhand state was presented. Earlier he gave a detailed picture on Jharkhand water scenario, fresh water availability, usage statistics etc. He elaborately discussed about the Arsenic, Flouride, Nitrate and Iron problems in Jharkhand. He explained the source of heavy metals, contamination process, illness due to contaminations, symptoms and treatment methods due to water quality impacts.

Later, Dr. Nitish Priyadashi, introduced the water treatment technology. He explained the concept and principle of purification methods different purification methods like, Aeration, Coagulation, Clariflocculation, Filtration and Chlorination. All the above technologies were explained in detail manner.

Day – 2: 4th Sep 2012

The day started with Recap of Day -1

Session IV - VII: Demand calculation, Water Budgeting, Rain Water Harvesting and Source Sustainability

The day 2 was handled by Mr. Kallol Shah, Hydrology Consultant, Ranchi, He talked about village water security plan. Why is it needed? How should we get started? etc. Basic agenda of the water security planning is to ensure optimum utilisation of available water to meet the daily demand or requirement of various users. He also gave a group work on the following aspects,

1. Demand calculation process - Agriculture, industries, domestic purpose & to overcome all this requirement water budgeting is needed,
2. Water budgeting - Estimating availability of water from the surface, sub surface sources & rain water harvesting.
3. Storage aspects of rain water harvesting
4. Data sheets of village water security planning
5. Finally the participants were asked to prepare the demand calculation and water budgeting for ViSWA training centre and ViSWA training Hostel.

Day 3: 5th Sep 2012

Day 3 started with Recap of Day 2

Session VIII: Key steps involved in Community Water Security Plan

This session was handled by Dr. S. Rajendra Kumar. He explained the steps involved in Community Water Security Planning. Initially he explained about Importance of Planning process, major steps in planning; starts with calling of Gram Sabha, formation of Village Water and Sanitation Committee, involvement of stake holders, community mapping, field survey, data collection, parameter to be looked in the field, data analysis and proposal development.

Session IX: Why Participatory approaches? What does participation mean? Community Mobilization tools/ Participatory Rural Appraisal tools and techniques

After recap of day 2, the PRA session was started by Mr. Indraneel Ghosh from ACE foundation Bihar. Mr. Ghosh explained about the PRA, its historical background, project cycle, its need and duration of involvement.

Further he explained about the characteristics of human beings, how they are behaving when approaching the PRA. He also shared his experiences in PRA and tips for conducting the PRA.

After introductory session on PRA, he started to introduce the different tools in PRA methods. The following list of tools was explained to the participants during the training program.

1. Johari Window
2. Participatory Mapping
3. Venn Diagram
4. Seasonal Diagram
5. Daily Activity chart
6. Trend Analysis
7. Body Mapping
8. Pair wise ranking
9. Force Field Analysis
10. Casual Impact Diagram
11. Impact Evaluation

Day 3: 6th Sep 2012

Fourth day of the training was the field visit. The participants were asked to prepare the village water security plan of Hesla Village, of Hesla Panchayat and Angara block. The whole participants divided into four groups. Each group had different tasks assigned. Before leaving for field, the gram sabha members briefly informed about the village and body composition of village.

Post lunch a poster presentation was done by each team, reflecting their activity in village and finally one member in each team was in charge for the developing and finalizing the village water security plan. The presentations thereby reflected the true strength of and capability of each individual for the village water security plan.

Valedictory:

After completion of all presentation, the valedictory function was started all the participants thanked PHED, MoDWS, Plan-India/WASH Institute for organising this useful training programme. Finally, the participants also gave their feedback & view on the training. The course completion certificate, group photo and the course materials were distributed to all the participants at the end.

Report -3
Title: Water Quality Monitoring and Management
Date: 7-9 September 2012
Venue: ViSWA Training Centre, Ranchi, Jharkhand

A three day training program focusing on **"Water Quality Monitoring and Management"** was conducted for the engineers / officials / NGO representatives of Jharkhand at Vishveshwaraiya Sanitation and Water Academy (ViSWA), Ranchi, Jharkhand during 7-9 September 2012 with the primary objective of the training being the necessary strengthening of the capacity, skill and knowledge on the issues of water quality monitoring and management.

The first day's programme started with Participants Registration followed by an inaugural session. During the Inaugural sessions Dr. S. Rajendra Kumar, delivered the welcome address and briefly introduced the background of series of trainings conducted by WASH Institute / Plan India. Later, Mr. Manoj Kumar Chaudhary, Director (Project Monitoring Unit) formally inaugurated the training. In his address to the participants, Mr. Chaudhary mentioned about the various efforts taken by the Jharkhand government to provide protected water supply to the State people. He further expressed the confidence, that with WASH Institute conducting several training programmes in Jharkhand during the past one year, the participants would have been immensely benefited and would implement the learnings at the field level for successful implementation of the government projects.

DETAILS OF THE PERSONS INVOLVED:

A. **PARTICIPANTS:** A total of 28 participants actively took part in the training programme for the entire training period, which included Senior and Junior Engineers representing districts from the Jharkhand state and NGO representatives.

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B. **DIGNITORIES:** The opening day of the programme included guest addresses by the invited dignitaries Mr. Manoj Kumar Choudhury.

C. **RESOURCE PERSONS:** For the actual conduction of the training, experts from various fields had been invited to give presentations on their respective topics:

RESOURCE PERSON	**Designation/Area of Expertise**
Dr. Nitish Priyadarshi	Environment Consultant, Ranchi
Dr. Ajay K. Upadhyay	Environment Consultant and Lab In-Charge, PHED, Patna, Bihar
Dr. S. Rajendra Kumar	Training Instructor, WASH Institute, Kodaikanal

PROGRAMME EVENTS:

After the conclusion of the inaugural session, the first day training session commenced in compliance with the pre-planned schedule, the details of which are tabulated as under:

Day 1 – 6th September 2012

10.30 a.m: Dr. Nitish Priyadarshi: Dr. Nitish, in his presentation on "Sector Overview, Government Policies, MDGs and Linkages with Safe Drinking Water" explained in detail about the prevailing status of water quality issues in the country in general and Jharkhand in particular. He explained the alarming scenario of declining availability of fresh water in the country and pointed out that despite the fact that the Jharkhand state receives good rainfall, still many parts continue to face acute water scarcity. He also elaborated in detail about the various water quality issues and measures taken by various states to supply safe drinking water to the people.

11.30 a.m: After tea break, Dr. Nitish took another session on "Water Quality Crisis in India and Jharkhand". He mentioned that the country has been well endowed with large fresh water reserves, but the increasing population and overexploitation of ground water over the past few decades has not only resulted in water scarcity but also created severe water quality issues. He further narrated that wastewater is increasing significantly and in the absence of proper measures for treatment and management, the existing freshwater reserves are being polluted. He explained the various types of water quality crisis in different parts of the country which witness high arsenic, nitrate, iron content etc. Dr. Nitish narrated further that India's water crisis is predominantly a manmade problem and the country is particularly dry, nor is it lacking in rivers and groundwater. Extremely poor management, unclear laws, government corruption, and industrial and human waste have caused this water supply crunch and rendered what water is available practically useless due to the

huge quantity of pollution. Because the rivers are too polluted to drink and the government is unable to consistently deliver freshwater to the cities, many urban dwellers are turning to groundwater, which is greatly contributing to the depletion of underground aquifers

The participants were given a group work to bring out prevailing issues on the Challenges in Water Quality and ways to overcome with special focus on Jharkhand. The participants divided into groups and after a discussion, brought out the issues and problems prevailing in Jharkhand on water quality aspects. The individual groups presented their feedback and after an elaborate discussion the day's session ended at 5 p.m.. Dr. S. Rajendra Kumar moderated the presentation of sessions.

Day 2 – 7th September 2012

The second day session started with the sharing of the learning's during the sessions of the first day of training by few participants.

9:30 a.m. The second day's first presentation was on "Water Quality – Physical, Chemical and Biological Problems and Treatment Methods – special reference to Jharkhand" by Dr. Ajay K. Upadhyay. This session planned for day 1 was taken up today due to changed travel plan of the resource person. Dr. Upadhyay through his presentation explained in detail about the various parameters that affect the physical, chemical and biological problems and treatment methods of water. He explained that the states like Bihar and Jharkhand is affected heavily with arsenic problem. His presentation included lot of visuals depicting the various problems of water quality issues. At the end of the session, the participants posed lot of questions to the resource person on the prevailing water quality issues in their area of work and got their queries clarified.

10.30 a.m. - The second session of the second day was on the topic "Importance of Sanitation in Maintaining Water Quality" by Dr. Nitish Priyadarshi. Dr. Priyadarshi mentioned that water quality is a growing concern throughout the developing world and drinking water sources are under increasing threat from contamination with far-reaching consequences for the health of children and for the economic and social development of communities and nations. He explained in detail about the chemical contamination of water supplies, both naturally occurring and from pollution causing serious problem. He narrated further about arsenic and fluoride problem which threaten the health of hundreds of millions of people. He elaborated in detail the serious nature of causes arising out of microbiological contamination of drinking water.

11.30 a.m. : A session on "Guideline of NRDWP" was handled by Dr. Ajay K. Upadhyay. He explained in detail the various efforts taken by Government of India and the respective states to ensure that quality water is provided to the citizens of this country. Dr. Upadhyay shared many field experiences he has faced in various parts of the country and mentioned that high level of pollution due to various factors continue to be a major concern for the governments.
12.30 p.m. : This session was on "Water Policy" by Dr. Priyadarshi. He mentioned that "Water is a natural resource, fundamental to life, livelihood, food security and sustainable development". Over the past few decades, water has become a scarce resource resource in the country. While India has more than 17 percent of the world's population, but has only 4% of world's renewable water resources with 2.6% of world's land area. In addition, there are challenges of frequent floods and droughts in one or the other part of the country. With a growing population and rising needs of a fast developing nation as well as the given indications of the impact of climate change,

availability of utilizable water will be under further strain in future with the possibility of deepening water conflicts among different user groups. Large parts of India have already become water stressed. Rapid growth in demand for water due to population growth, urbanization and changing lifestyle pose serious challenges to water security. Access to safe water for drinking and other domestic needs still continues to be a problem in many areas. Skewed availability of water between different regions and different people in the same region and also the intermittent and unreliable water supply system has the potential of causing social unrest. Dr. Priyadarshi explained the various features of measures proposed under the National Water Policy (NWP 2012) and the similar efforts taken by several state governments.

14.00 hours : Delivering another session on "Water Management – Jharkhand Perspective", Dr. Priyadarshi shared the various efforts taken by the Government of Jharkhand on water management aspects. He presented the details of such efforts made post-Independence and more in particular after formation of Jharkhand state during 2000. He mentioned that the efforts have resulted in (i) creation of irrigation potential from a few thousand ha. to around 3.00 lakh ha. and there by increased agriculture productivity and agro-based industries; (ii) enhancing the drinking water supplies to the major cities and towns as well as to rural areas; and (iii) made available industrial water supplies to spur industrial growth. He presented the information that the geographical area of the state is 79 lakh ha. and cultivable area is 38 lakh ha. Out of this, 80% of the area is drought prone. About 7% area is flood prone. The highly variable rainfall in Jharkhand ranging from 1000 to 1400 mm mainly occurs within four-month period between June to September with the number of rainy days varying between 60 and 80.

He presented the various efforts taken by the State Government to tackle the problem of floods, drought etc. and other highlights of the water management policy of the state government.

16.00 hours : After the tea break, a session on "Water Sampling Procedure and Analysis" was dealt by Dr. Ajay Upadhyay. He highlighted the importance of constant monitoring of quality of available water. He explained the various measures taken by Government of India and the state governments to provide necessary equipments and facilities to make people more aware of the various types of contamination, sampling and analysis associated with drinking water so that the people can better recognize a contamination or potential of contamination and know how to deal with it. He narrated that **80%** of all illness in developing countries is caused by water related diseases and **90%** of wastewater in developing countries is discharged directly into rivers and streams without treatment. He cited the United Nation Assembly's estimate that by the year 2025, **75%** of the world population **won't** have reliable, clean water.

He narrated the reasons for the need to assess the water quality to the community through Public Health Engineering Department to know whether Water is meeting the water quality standards. This calls for regular water quality monitoring and surveillance.

17.00 hours: After the class room sessions of the day, the participants divided into four groups and did a group work to bring out a Plan of Action for addressing the water quality issues of the state. The individual groups brought out well laid action plan and presented their points. After a very interactive discussions, the day's session ended.

Day 3 – 9.9.2012

On day-3 of the training, the participants led by Dr. Ajay Upadhyay undertook a field visit to Pancha Gram panchayath located in Ormanjhi block of Ranchi district.

The Panchayat President Mr. Kailaash received the team at the Panchayath office community hall and briefed the participants about the population, economic composition and nature of agricultural activities being undertaken in the 5 villages under the Panchayat. The visited location was very picturesque and has abundant water resources.

After the meeting of the participants with the Panchayat President, Dr. Ajay Upadhyay took the team to a nearby borewell point. By using a simple field water testing kit of TWAD Board, he demonstrated water quality testing procedures for analyzing various parameters such as nitrate, iron, nitrite, pH, turbidity analysis etc. Guided by Dr. Upadhyay, the participants themselves tested and learnt the process of water testing procedures.

The participants very enthusiastic to actively involved in the field visit and expressed their satisfaction with the field visit which provided them an opportunity to understand practical aspect of water quality issues after attending two day class room sessions.

The team returned to Ranchi at around lunch time.
After lunch, the participants gathered for the valedictory programme of the training.

As practiced in all WASHi training programmes, the participants were distributed a simple questionnaire to assess their learning's during the 3-day training programme. This "post-test" exercise brought out improved results as compared to the "pre-test" exercise conducted. The findings of these process are appended below.

After conducting the above exercise, Mr. Manoj Kumar Chaudhary, Director (Project Monitoring Unit) participated and presided over the valedictory session.

He sought the verbal feedback of each and every participant and obtained their views after attending this 3-day training. Mr. Chaudhary, who attended most of the class room sessions during the first two days, felt immensely satisfied on the purpose of conducting such trainings and expressed the hope that the participants would be able to perform better in their areas, by applying their learning's of the training in the field. After that, the session of training was concluded, distributing certificates and CDs, consisting of training material in soft copy.

During the valedictory functions an evaluation form given to all the participants to know the feedback about the training. The entire participant's views given in graphical representation. Based on the pre-post post, the knowledge level of the participant before training was 48% and post test training results showed that was 63%.

Report -4
Title: Water Quality Monitoring and Management
Date: 10-12 September 2012
Venue: ViSWA Training Centre, Ranchi, Jharkhand

As part of the ongoing Plan India / Ministry of Drinking Water and Sanitation supported "Water" training programmes, a second batch of 3-day training on "Water Quality Monitoring and Management" was held for the officials / engineers and NGO workers of Jharkhand state during 10-12 September 2012.

A total of 21 participants actively took part in the training programme for the entire training period, which included Senior and Junior Engineers representing districts from the Jharkhand state and NGO representatives.The opening day of the programme included guest addresses by the invited dignitaries Mr. Manoj Kumar Choudhury.

The details of field visit undertaken on the third day (12.9.2012) of second training is programme is described below:

The participants visited Barhu village located Barhu panchayath, Ranchi district. The village is located in an interior place and agriculture is the main activity of the local people. The team chooses a bore-well point located near Bechara Mahali's house in a corner of the village. Dr. Upadhyay, using a simple field water testing kit developed by TWAD Board conducted and demonstrated water sample analysis of the bore-well for various quality parameters. The participants actively participated in the process and themselves conducted

number of tests using the simple testing kit provided to them. Later, in another area of the same village two women workers (Jal Sahiyas) were invited and under the guidance of Dr. Upadhyay and few participants and made them understand the various quality parameters to be kept in mind before putting into use any available water source. This process was witnessed by a group of villagers gathered during the visit of the training participants.

The visiting team members observed that at several locations, the areas surrounding the bore well and open wells are kept unclean with stagnated water and heap of cow dung. The villagers were explained about the need to keep the surrounding of water collection points clean and tidy for a healthy atmosphere. After the field visit, the participants returned to ViSWA, Ranchi.

The valedictory function was again presided over by Mr. Manoj Kumar Choudhary. He was happy to note that the participants have actively involved in both the class room sessions and in the field visit and expressed confident that they would carry the learning's to the area of their operation and ensure effective implementation of government programmes.

Report -5
Title: Community Based Water Security Plan & PRA Tools
Date: 16-19th January 2013
Venue: ViSWA Training Centre, Ranchi, Jharkhand

A four day's training programme on "Community Based Water Security Plan & PRA Tools" was held at the **Venue ViSWA Training Centre, Ranchi, Jharkhand from 16th to 19th January 2013.** A total of 31 participants comprising of Engineers from P.H.E.D, PRI members, VWSC members and NGO functionaries participated in the same. The Day one of the Programme started with Training Registration, followed by joint welcome session of Mr. Manoj Choudhary, (PMU) and Mr. Gautam Kumar, Sr. Training Instructor, WASHi. They delivered their Inaugural Speech putting emphasis on the need of such training sessions, need of changing the overall planning while designing & execution of community based water security plans through PRA methods of involving Community for effective project planning, implementation and monitoring. During this training period the participants along with WASHi representatives also got an opportunity to participate in a meeting called by Shree Shardendu Narayan, Engineer- in- Chief from state water and sanitation Mission (SWSM).

- Dr. Nitish Priyadarshi, Environment Consultant, Ranchi, giving an introduction to Water Security, covering the topics of Fresh water Scenario in India, Water crisis in India, Challenges in achieving water security to Communities, Rain water Harvesting, Demand calculation for multiple use of water and water contamination issues in Jharkhand
- Mr. Niket Kumar Jha, Training Instructor, WASHi, made presentation on Sector Overview, Government policies & MDGs and Linkages with Safe Drinking Water, Johari window and cost- benefit analysis in project formulation.
- Dr. A. K. Upadhyay, Environment Consultant and Lab In-Charge, PHED, Bihar, made presentation on Water Quality problems and Issues – Physical, Chemical and Biological Problems and Treatment methods, Application of PRA Tools and Calculating Village Water Demand and Budgeting and developing Community Water Security Plan.

The field visit of PRA exercises was conducted in Tundahuli village of Ormanjhi block in Ranchi. There the participants were divided into different groups and interacted with villagers to understand their need of water. They used different participatory approaches to explore the same. After collecting all the information the participants came back to training centre and made presentation on water budget.

The conduct of Pretest showed that the knowledge level of the participant before training was 35% and post test training results showed an increase that was 69%.

Report -6
Title: Community Based Water Security Plan & PRA Tools
Date: 28th to 31st January 2013
Venue: Jaipur, Rajasthan

A four day's training programme on "Community Based Water Security Plan & PRA Tools" was held at the **Venue Hotel Indiana Pride, Jaipur, Rajasthan from 28th to 31st January 2013.** A total of 37 participants comprising of Engineers from P.H.E.D, PRI members, VWSC members and NGO functionaries participated in the same. The training Programme started with Training Registration, followed by joint welcome session of Mr. Suneet Sethi, Consultat HRD, CCDU, Jaipur and Mr. Gautam Kumar. They delivered their Inaugural Speech putting emphasis on the need of such training sessions, need of changing the overall planning while designing & execution of community based water security plans through PRA methods of involving Community for effective project planning, implementation and monitoring.

- Mr. Hemant Khosla took the topics on Fresh water Scenario in India, Water crisis in India, Challenges in achieving water security to Communities, Rain water Harvesting, Demand calculation for multiple use of water, water contamination issues Participatory approaches, Community Mobilization tools and the Participatory Rural Appraisal tools.
- Dr. Suneet Sethi, Consultant HRD, CCDU Jaipur, giving an introduction to Total sanitation campaign, water quality issues and Rain water harvesting.

The field visit was conducted where the participants were taken to Mohana Panchayat where they saw the water supply system excellently managed by the community members. The method of collecting tariff was explained to the visitors. In addition to this the participants also got a chance to visit the fluoride removal plant. There were two units one was very big and has stopped working however another unit was fixed with the hand pump.

The conduct of Pretest showed that the knowledge level of the participant before training was 40% and post test training results showed an increase that was 70%.

Report -7
Title: Community Based Water Security Plan & PRA Tools
Date: 7th-9th February, 2013.
Venue: Agra, Uttar Pradesh

A three day's Training Programme on "Community Based Water Security Plan & PRA Tools" was done at **Hotel Mandakini Palace, Agra, Uttar Pradesh from 7th-9th February, 2013.** The total number of Participants who participated in the this Training was 33 and the participants were Jal Nigam Engineers, PRI Members, VWSC Members and NGO Representatives. The training started with Training Registration, followed by welcome session of Mr. Gautam Kumar, Sr. Training Instructor, WASHi and Pre-Test . In his inaugural speech Senior Training Instructor laid emphasis on the importance of this kind of training programs as well as need of changing the overall planning while designing & execution of community based water security plans through PRA methods of involving Community for effective project planning, implementation and monitoring.

- **Mr. Indraneel Ghosh**, Environment Consultant, Patna, made presentation on the introduction to
    - ❖ Water Security, covering the topics of Fresh water Scenario in India with reference to U.P.,
    - ❖ Water crisis in India with reference to U.P. Challenges in achieving water security to Communities,

- ❖ Participatory approaches,
- ❖ Community Mobilization tools and the Participatory Rural Appraisal tools.

- **Mr. Gautam Kumar** Senior Training Instructor, WASHi, made presentation on
  - ❖ Sector Overview, Government policies & MDG's and linkages with safe drinking water.
- **Mr. Sonal Rathore**, Consultant, Unicef, Lucknow, made presentation on
  - ❖ Water Contamination issues and
  - ❖ Water Quality problems with especial reference to the physical, biological problems and treatment methods.
- **Dr. A. K. Upadhyay**, Environment Consultant and Lab In-Charge, PHED, Bihar, made presentation on

❖ Water Quality problems and Issues – Physical, Chemical and Biological Problems and Treatment methods,

❖ Demand Calculation for multiple use of water with reference to domestic, drinking, cattle, agriculture and Industries.

❖ Application of PRA Tools and Calculating Village Water Demand and Budgeting and

❖ Developing Community Water Security Plan.

❖ He also made presentation on of drinking water supply which sustainability , infrastructure factors affecting sustainability the Sustainability includes: source sustainability and

During the training and was given to the the training along with group photographs was also taken participants on the concluding of the certificates.

The conduct of Pretest showed that the knowledge level of the participant before training was 35% and post test training results showed an increase that was 75%.

Report -8
Title: Community Based Water Security Plan & PRA Tools
Date: 21st-23rd February, 2013.
Venue: Jhansi, Uttar Pradesh

A three day's Training Programme on "Community Based Water Security Plan & PRA Tools" was done at **Hotel Bundelkhand Pride, Jhansi , Uttar Pradesh from 21st-23rd February, 2013.** The total number of Participants who participated in the this Training was 35 and the participants were Jal Nigam Engineers, PRI Members, VWSC Members and NGO Representatives. The training started with Training Registration, followed by welcome session of Mr. Anuj Kr. Jha, CDO, Jhansi, Mr. Hiralal, DDO Jhansi & Mr. Gautam Kumar, Sr. Training Instructor, WASHi and Pre-Test . In their inaugural speech they laid emphasis on the importance of this kind of training programs as well as need of changing the overall planning while designing & execution of community based water security plans through PRA methods of involving Community for effective project planning, implementation and monitoring.

- **Mr. Narendra Prasad**, Environment Consultant, Patna, made presentation on the introduction to
    - ❖ Water Security, covering the topics of Fresh water Scenario in India with reference to U.P.,

- ❖ Water crisis in India with reference to U.P. Challenges in achieving water security to Communities,
- ❖ Participatory approaches,
- ❖ Community Mobilization tools and the Participatory Rural Appraisal tools.

- **Mr. Gautam Kumar** Senior Training Instructor, WASHi, made presentation on
  - ❖ Sector Overview, Government policies & MDG's and linkages with safe drinking water.
- **Dr. A. K. Upadhyay**, Environment Consultant and Lab In-Charge, PHED, Bihar, made presentation on
  - Water Quality problems and Issues – Physical, Chemical and Biological Problems and Treatment methods,
  - Demand Calculation for multiple use of water with reference to domestic, drinking, cattle, agriculture and Industries.
  - Application of PRA Tools and Calculating Village Water Demand and Budgeting and
  - Developing Community Water Security Plan.
  - He also made presentation on the Sustainability of drinking water supply which includes: source sustainability , infrastructure sustainability and factors affecting sustainability

During the training group photographs was also taken and was given to the participants on the concluding of the training along with the certificates.

The conduct of Pretest showed that the knowledge level of the participant before training was 45% and post test training results showed an increase that was 82%.

Report -9
Title: Training on Water Supply & Management
Date: 28th February- 2nd March, 2013
Venue: ViSWA Training Centre, Ranchi, Jharkhand

A three day's Training Programme on "Water Supply & Management" was done at **ViSWA Training Center, Ranchi, Jharkhand from 28th February- 2nd March, 2013.** The total number of Participants who participated in this Training was 37 and the participants were PHED Engineers, PRI Members, VWSC Members and NGO Representatives. The training started with Training Registration, followed by welcome session of Mr. Manoj Chaudhary Deputy Director PMU & Mr. Gautam Kumar, Sr. Training Instructor, WASHi and Pre-Test . In their inaugural speech they laid emphasis on the importance of this kind of training programs as well as need of changing the overall planning while designing & execution of community based water supply schemes especially in rural areas. They also laid emphasis that through these training participants will also learn the different sources of water contamination and how to test water through water testing kit.

- **Dr. Nitish Priyadarshi**, Environment Consultant, Ranchi, made presentation on the introduction to
    - ❖ Water Security, covering the topics of Fresh water Scenario in India with reference to Jharkhand.,

- ❖ Water crisis in India with reference to Jharkhand
- ❖ Challenges in achieving water security to Communities,
- ❖ Concept and sustainability of rural water supply schemes
- ❖ Importance of sanitation in maintaining water quality

- **Mr. Gautam Kumar** Senior Training Instructor, WASHi, made presentation on
  - ❖ Sector Overview, Government policies & MDG's and linkages with safe drinking water.
- **Dr. A. K. Upadhyay**, Environment Consultant and Lab In-Charge, PHED, Bihar, made presentation on
  - Water Quality problems and Issues – Physical, Chemical and Biological Problems and Treatment methods,
  - Water sampling procedure and analysis
  - Demonstration of field water testing kit
  - He also made presentation on the Sustainability of drinking water supply which includes: source sustainability , infrastructure sustainability and factors affecting sustainability
- **Mr. C.P. Khumbhat**, Environment Consultant, Udaipur, made presentation on
  - Role of communities/CBO's in water quality monitoring and surveillance
  - PRA Tools for water supply design and management
  - Participatory approach in rural water supply schemes

One day field visit was done for the demonstration of field water testing kit. Participants were taken to nearby field name Sugurmuttu. Participants learned the technique of testing water through the water testing kit. Most of the participants learned the process by doing themselves.

During the training group photographs was also taken and was given to the participants on the concluding of the training along with the certificates.

The conduct of Pretest showed that the knowledge level of the participant before training was 30% and post test training results showed an increase that was 85%.

Report -10
Title: Training on Hand Pump Mechanic & Maintenance
Date: 14th-16th March, 2013
Venue: Agra, Uttar Pradesh

A three day's Training Programme on "Hand Pump Mechanic & Maintenance" was done at **Hotel 9 Star, Agra, Uttar Pradesh from 14th-16th March, 2013.** The total number of Participants who participated in this Training was 34 and the participants were PRI Members, VWSC Members and NGO Representatives. The training started with Training Registration, followed by welcome session of Mr. Gautam Kumar, Sr. Training Instructor, WASHi and Pre-Test. In his inaugural speech he laid emphasis on the importance of this kind of training programs as through this training participants can come to know about the different types of hand pumps and its operation and management. Participants will also learn how to repair the hand pumps and the important parts of the hand pumps.

- **Mr. K.L. Bhandari**, Environment Consultant, Udaipur made presentation on the introduction to
  - ❖ Water Security, covering the topics of Fresh water Scenario in India with reference to Uttar Pradesh
  - ❖ Water crisis in India with reference to Uttar Pradesh
  - ❖ Water Cycle
  - ❖ Types of Hand Pumps(Tara, Singur, India Mark2, India Mark 3)design and main parts
  - ❖ Care takers- roles, responsibilities & activities
- **Mr. C.P. Khumbhat**, Environment Consultant, Udaipur, made presentation on
  - ❖ Role of communities/CBO's in water quality monitoring and surveillance
  - ❖ Safe drinking water and its sources
  - ❖ Methods and reasons of contamination
  - ❖ Water quality
  - ❖ Sanitation and its components
  - ❖ Operation and maintenance of hand pumps

- Tools for Repairing
- Handling and maintenance of hand pumps
- Importance part of repairing
- Defunct hand pumps- reasons and repairing

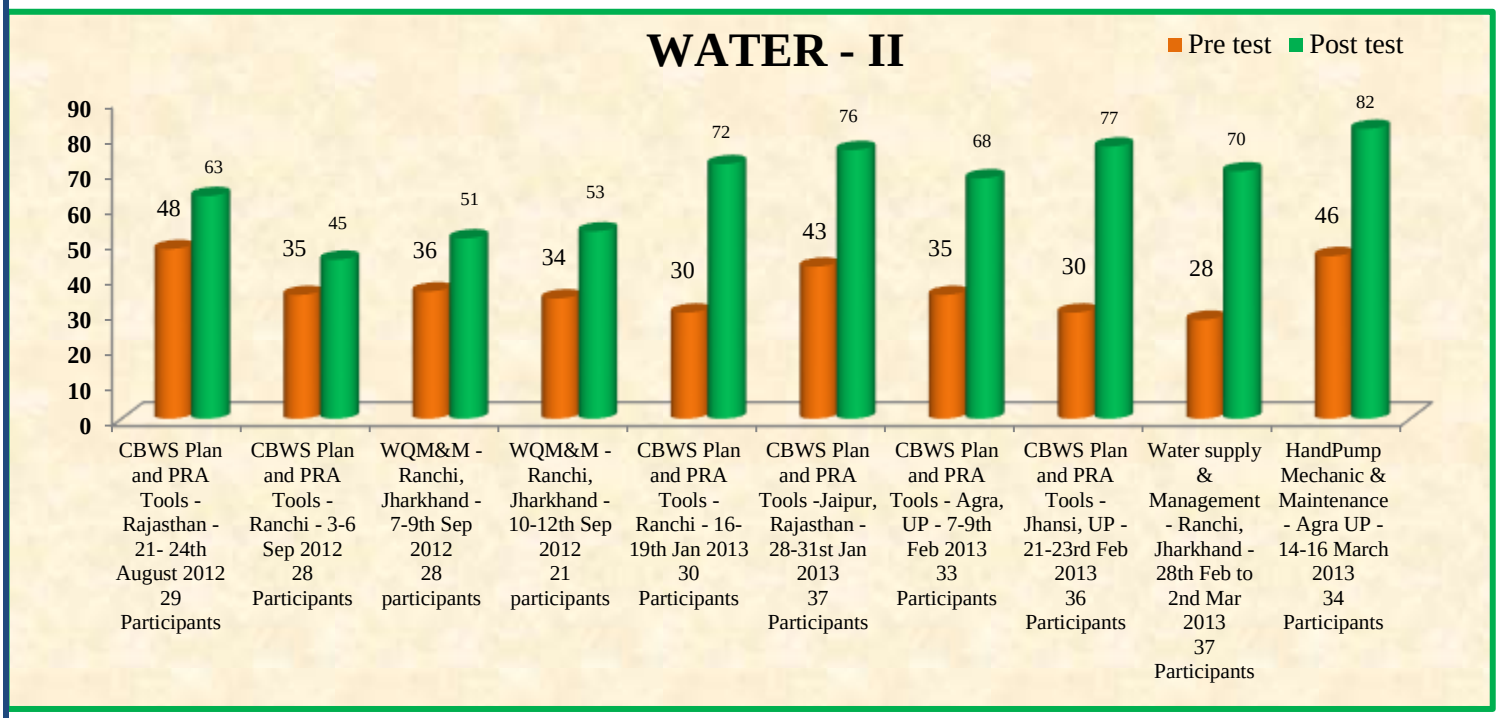
One day field visit was arranged and the participants were taken to nearby village called Rajrai to learn the operation and maintenance of hand pumps. During the field visit participants also came to know about the different parts of the hand pumps and how to repair it.

During the training group photographs was also taken and was given to the participants on the concluding of the training along with the certificates.

The conduct of Pretest showed that the knowledge level of the participant before training was 35% and post test training results showed an increase that was 80%.

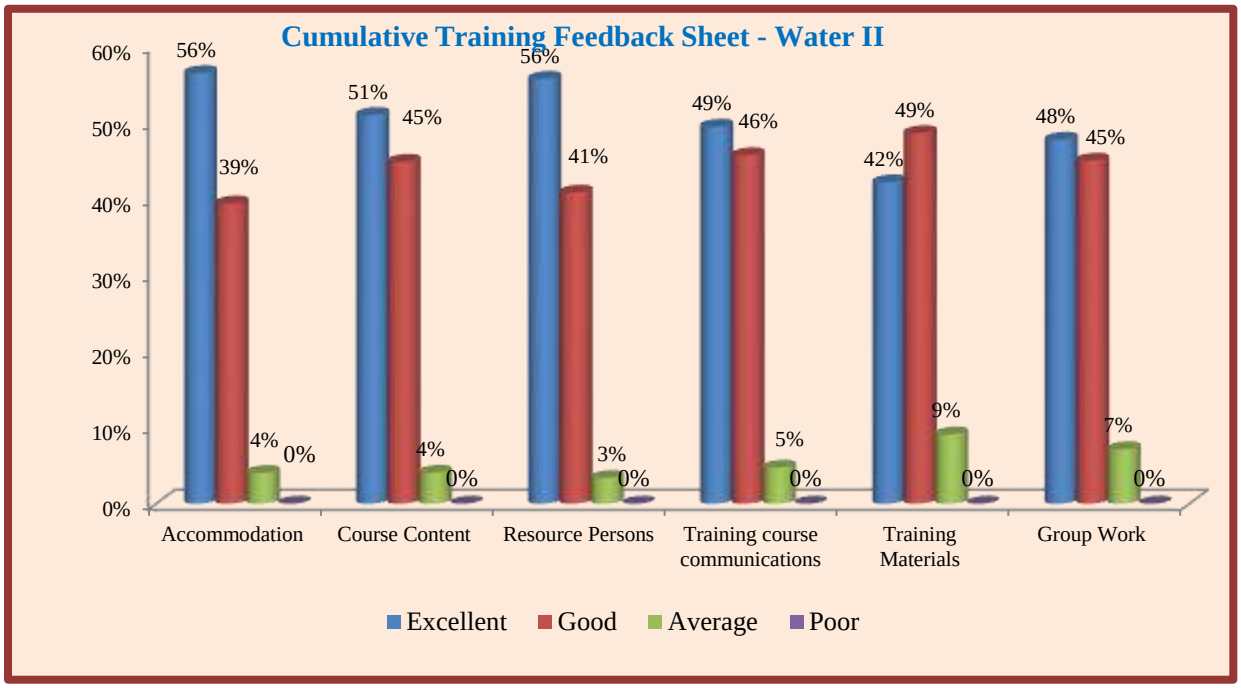
Training Evaluation:

During the valedictory functions an evaluation form and a feedback about the quality of venue logistics was given to all the participants. Based on the pre-post post, the knowledge level of the participant before training was 28% onwards and post test training results showed an increase that was up to 82%. Regarding the knowledge the entire participant's views are given in graphical representation.



Training Feed back

A cumulative Training feedback on the six parameters have been represented in the bar diagram. The cumulative feedback rated as excellent category is 51% followed by good 44%, average 5% and poor nil.



The following are the important feedback of the participants:

Positive learning from this training program	• PRA Tools • Water quality testing • Different ways of purification of water • Water security Plan & hygiene practices • Rain Water Harvesting • How to get Safe Drinking Water • Water Pollution- Physical, Chemical & Biological • Water conservation • How to remove fluoride from water etc.,
The learning that the trainees willing to implement in their states	• To create awareness among people regarding water quality • To educate the people to maintain water table • To educate the people about different water impurities • Rain Water Harvesting • To access to Safe Drinking Water • To create awareness about hygiene practices • Water budgeting • Water conservation etc.,

Future training courses willing to attend and areas of their interest	• Training on Water Conservation & Management • Training on water & Sanitation • Training on Women Empowerment • Training on Hygiene Practices • Training on Rain Water Harvesting etc.,
Other suggestions for improvement of the course	• More training materials in Hindi • More use of films than presentations • Field visit days to be increased etc.,

Approval Vs Achievement

Programme	**Physical**		**Financial**	
	Approval (in Nos.)	Achievement (in Nos.)	Approval (in Rs.)	Actual (in Rs)
Water Phase II	10	10	42,16,400	27,78,437

Reasons for variation under Financial

- 5 Programmes conducted in Government run training centres – thus reduced boarding and lodging expenses
- 2 Programmes-Reduction of training duration from 4-days to 3-days on the request of State Government of UP – hence expenses are reduced.

List of Participants

Training on Community Based Water Security Plan & PRA tools
Jaipur, Rajasthan 21-24th August 2012

Sl.No.	Name
1	Jitendar Singh Gill
2	Sunil Purohit
3	Rashmi Godara
4	Bhavana Meena
5	Reena Sarpota
6	Payal Wyas
7	Kanakshi Purbia
8	K. C. Sharma
9	Ghonshyan Panow
10	Harikrishnan Agarwal
11	Mangtu Ram Jain
12	Shiva Kumar Mudgal
13	Lata Rani Maheshwari
14	Snyam Singh Lodha
15	Gopal Sharma
16	Ram Lal Verma
17	Ajay Shaka
18	Seema Magarwal
19	Veena Goyal
20	Rajeev Singhal
21	Dilip Sharma
22	Shivraj Bheel
23	Mangal Singh Parmar
24	Gopichand Verma
25	Nisha Sharma
26	Shubhagi Tibea
27	M. S. Mishar
28	Meeraj Saxena
29	Dr. Suneet Sethi

"Community Based water security plan and PRA tools"
Ranchi, Jharkhand
3-6th September 2012

Sl.No.	Name
1	Abhishek Kumar
2	Jitendra Kumar
3	Ramlala Das
4	Shanti Bhushan Singh
5	Arbind Kumar Goswari
6	Manoj Kumar Singh
7	Kumar Anand
8	Arindam Choudhury
9	Suman Raj Xalxo
10	Rohit Oraon
11	Kalicharan Bhagat
12	Jok Ki Minz
13	Soma Oraon
14	Onkan Nath
15	Rabindra Kumar Das
16	Kamlesh Otha
17	Dr. Saked Kumar
18	MD. Mojeebar Rahman
19	Lakhi Ram Manjht
20	Usha Kumari
21	Sudnir Kumar
22	Dashrath Praseed
23	Abi Imran Hashmi
24	Ashok Kumar
25	Mohan Mandal
26	Bindewhwar Prasad
27	Ratan K Choudhary
28	Mahesh Agrawal

"Water Quality Monitoring and Management"
Ranchi, Jharkhand
7-9th September 2012

Sl.No.	Name
1	Janardan Choubey
2	Manoj Chandra Kumar
3	Arshad Ruhani Ansari
4	Kunti Saha
5	Pancham Ram Chowrisa
6	Ram Prasad Singh
7	Rohit Kr. Mandal
8	Sunardan Mandal
9	Sathish Kumar Karna
10	Suman Kumar Mishra
11	Layeeque Ahmed
12	Krishna Kumar Gupta
13	Brajesh Kumar
14	Pravesh Kumar
15	Sangit Kumar
16	Vikas Kumar
17	Shiwadhar Prasad Singh
18	Sanjoy Kr. Mishra
19	Abirash Kumar
20	Sarya Prasd Mehta
21	Pravesh Kumar
22	Sikandar Prasad
23	Prakash Kr. Sinha
24	Mani Kant
25	Vijay Kumar Pushna
26	Kauahik Lal
27	Krishna Lobal
28	Sneh Kumar

"Water Quality Monitoring and Management"
Ranchi, Jharkhand
10-12th September 2012

1	Ramashrya
2	Kamal Saha
3	Prars Prasad Singh
4	Rakush Chandra Upadhyaj
5	Subhask Kumar
6	Bibhash Chandra
7	Hemkant Murmu
8	Porem Bandhan Kachhap
9	Vikash Komar
10	Rajesh Kumar Singh
11	R.K. Anand
12	Bipin Kumar
13	Sauran Kumar
14	R. K. Singh
15	Ram Kumar
16	Rawel Horow
17	Limesh Kumar
18	Bimlendu Prasad
19	Mahendra Pratap Singh
20	Harentra Pd Singh
21	Ritu Kumari

"Community Based water security plan and PRA tools"
Ranchi, Jharkhand
16-19 January 2013

Sl.No.	Name
1	Shayama Devi
2	Mr. Abhishek Shankar
3	Md. Sanual Ansari
4	Mr. Renki Choudhury Mukerjee
5	Ms. Gulab Devi
6	Ms. Sita Devi
7	Mr. Suunita Horo
8	Pradeep Kumar Manish
9	Ram Ayodhya Ray
10	Sana Kr. Singh
11	Manoj Kumar Singh
12	Sarita Devi
13	Deepali Devi
14	Soma Oram
15	Varun Kumar Sena
16	Rupni Singh
17	Neera Devi
18	Satyendra Kumar Singh
19	Arkesh Khallkho
20	Birasmani Baig
21	Harendra Prasad Seth
22	Niranjan Kumar
23	Vivek Kumar
24	Rajesh Kumar
25	Rajesh Kumar Srivastava
26	Meena Devi
27	Sunitha Devi
28	Anitha Manjhi
29	Namitha Rani
30	Mamta Devi

"Community Based water security plan and PRA tools"
Jaipur, Rajasthan,
28-31 Jan 2013

Sl.No.	**Name**
1	Bhavana Meena
2	Deepak Agarwal
3	Surendra Verma
4	Om Prakash
5	Srimathi Munni Devi
6	Sanjay Kumar
7	K C Sharma
8	Anil Mathur
9	Naval Kishore Sharma
10	Mamta Bairwa
11	Lata Rani Maheswari
12	Babulal Sharma
13	Mukesh Choudhary
14	Chottu Ram
15	Laxman Kumar Sharma
16	Jagdish Narayanan
17	Raj Kumar
18	Jagdish Dwivedi
19	Rohit Sharma
20	Sandeep
21	Ashok Jarwal
22	Ram Sukhlal Gurjar
23	Sohan Lal Sajni
24	Kanta Behwa
25	Bhagwan Singh Gurjar
26	Satyanarayan Singh Chouhan
27	Rajaram Jat
28	Chouthmal Sharma
29	Udda Lal Gurjar
30	Ramavatar Gurjwar
31	Mrs. Asha Meena
32	Sanjay Bairawa
33	Mohan Meena
34	Hansraj Meena
35	Ramesh Chandra Yogi

36	Ramsingh Jat
37	Hemlata

"Community Based water security plan and PRA tools"
Agra, Uttar Pradesh,
7-9 Feb. 2013

Sl.No.	**Name**
1	Pradeep Kumar Sharma
2	Nitin Kumar
3	Jitendra Singh
4	Nitish Gupta
5	Lalit Saini
6	Abhinav Gupta
7	Kushma Devi
8	Gajendra Singh
9	Bhoop Singh
10	Bhuri Singh
11	Rajendra
12	Manshi Prasad Gupta
13	Saurabh Kumar
14	Surendra Prasad Yadav
15	Arun Kumar
16	Uma Shankar Kumar
17	Harendra Singh
18	Birendra Singh
19	Chetaram
20	Mahesh Kumar
21	Mukesh Kumar Gupta
22	Tauseef Ahmad
23	Hoti Lal
24	Pradeep Ram
25	Promoth Kumar
26	Karan Singh
27	Diwan Singh
28	Rajesh
29	Mahendra Singh
30	Brijpal
31	Rameshwar Thayal
32	Shivsankar
33	Badal Singh

"Community Based water security plan and PRA tools"
Jhansi, Uttar Pradesh,
21-23 February 2013

Sl.No.	Name
1	Arjun Prasad
2	Narayan Singh
3	Promoth Kumar
4	Guddu Mitri
5	Balbabu
6	Ashok Kumar
7	Basudev
8	Arvind Kumar
9	Jitendra Kumar
10	Chandra Bhan Pal
11	Siyaram
12	Mamta Devi
13	Usha Khara
14	Raja Beti
15	Vidya Devi
16	Sunitha Devi
17	Jamila Begam
18	Brisman
19	Vivek Singh Chauhan
20	Arvind Sharma
21	M.S. Choubey
22	Satyanshu Kumar
23	Shasisekar
24	Kishori Lal
25	Ajeet Kumar Maurya
26	Dharmesh Kumar
27	Kusum
28	Chanda Devi
29	Usha Devi
30	Brijesh Kumar
31	Rameshwar Patel
32	Midhlesh Kumar
33	Jugul
34	Mannu Devi

35	Arvind

Training course on
Water Supply and Management
Ranchi, Jharkhand - 28 Feb to 2nd March 2013

Sl.No.	**Name**
1	Uma Shankar
2	Sanjay Prasad
3	Manish Kumar
4	Rajesh Kumar
5	Gopa Chatterji
6	Shanti Devi
7	Anjana
8	Brismani Baig
9	Reena Gujur
10	Ritesh Kumar Sinha
11	Rohit Kumar
12	Vikas Singh
13	Amit Prasad Verma
14	Barun Kumar Sinha
15	Chandhu
16	Kousalya Devi
17	Anita Devi
18	Kavita Singh
19	Kian Barla
20	Md. Akbal Hussain
21	Himanshu Kumar
22	Deepak Kushwaha
23	Verendra Kumar Sah
24	Braj Kishore Mishra
25	Anand Kumar Singh
26	Sangita Devi
27	Pinaki Ch. Shit
28	Sujit Kumar Trivedi
29	Rita Kumari
30	Arbind Kumar Goswami
31	Niranjan Kumar
32	Naseem Ahmed
33	Brhamdeo Tiwary
34	Sushma Devi

35	Reena Devi
36	Sida Jolen
37	Nithin Kumar

Training course on
HANDPUMP MECHANIC AND MAINTENANCE
at Agra, Uttar Pradesh 14-16 March 2013

Sl.No.	Name
1	Rajesh Kumar
2	Vimal Soni
3	Rajkumar Yadav
4	Murali Lal Tomar
5	Rakesh Singh
6	Jayasingh
7	Suredra Singh
8	Rajendra Kumar
9	Dinesh Chandra
10	Sivshankar
11	Ramroop
12	Hari Singh
13	Satyendra
14	Arun Kumar
15	Nnitish Gupta
16	Jitendra Singh
17	Mahi Pal Singh
18	Ram Moorti
19	Hoti Lal
20	Subash Chandra
21	Abhinav Kumar
22	Lalit Saini
23	Rajbir Singh
24	Shyam Mohan Joshi
25	Rajpal Singh
26	Umesh Yadav
27	Premkanth
28	Nitin Cheth Yadav
29	Geeta Bhagal
30	Sanjay Singh
31	Manish Katara

32	Bijendra Singh
33	Satyavan Singh
34	Gangaram

Audit Report

The Scanned copy of the Audit Report is attached herewith. The hard copy of the same is being sent separately.

Acknowledgement

WASH Institute is grateful to Ministry of Drinking Water and Sanitation, Government of India and Plan India, New Delhi for entrusting us this assignment of conducting training programmes on water.

We hope that the quality of work and information gained by the officials and NGOs will in turn be passed on to their staff and this will increase the knowledge of the departments resulting in better work to the community.

WASHi is also encouraged by the good response received from Government of Rajasthan, Jharkhand and UP and the participants that the training has been very useful to them.

We thank Plan India for supporting this opportunity of working for the Government in the WASH sector which will surely have a good impact.

WASH Institute

Kodaikanal

20.04.2013