

Consultation/Training Report

**DISSEMINATION OF IMPROVED TECHNOLOGIES AND
BEST PRACTICES USED FOR WATER HARVESTING AND
CONSERVATION**

August 22, 2013

At Ram Krishna Jaidyal Dalmia Seva Sansthan and Samagra Vikas Sansthan (RJDSS)
Sports complex, Chirawa, Jhunjhunu, Rajasthan

In collaboration with **India Water Partnership**, Gurgaon
C/o Host Institution - AROH Foundation, NOIDA.



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Dissemination of Improved Technologies and Best Practices Used for Water Harnessing and Conservation

I. Background

Rajasthan is the largest State of the country. The status of water in the State is most critical. With increase in population and water demand for various purposes, the State is heading towards absolute water scarcity. The ground water condition is quite alarming. The condition has deteriorated very fast in the last two decades. The stage of ground water exploitation, which was just 35 % in the year 1984, has reached a level of 125 % in 2004. Out of 237 blocks in the state, only 32 blocks are in safe category. This calls for immediate remedial measures to address the critical water resources situation the State.

Total surface water available in the State is 21.71 BCM, out of which 16.05 BCM is economically utilizable. State has so far harnessed 11.55 BCM which is 72% of economically utilizable portion. In addition to it 17.89 BCM is allocated through Inter-State agreements. The available water is not enough to cater to the needs of the drinking, agriculture and non-agriculture demands.

The States New Water Policy document (approved on February 18, 2010) outlines the government's development framework for the long-term sustainable development and management of water resources in the State. It emphasizes on: (a) multi-disciplinary, multi-sectoral, water planning, allocation and management, (b) establishment of a regulatory framework for managing water resources, including the full range of sector environment issues, (c) reorientation of government water institutions, coupled with increased participation of the private sector through farmer managed WUAs and other private sector entities, (d) adopting modern management functions, such as financial management, programming and budgeting, and human resource management, (e) improving water and water related service delivery with an increased focus high quality, cost effective and financially sustainable irrigation and drainage services through commercial oriented farmer managed entities; and (f) enhancing technical

services through training and education. The most important new *additions* to the previous water policy are:

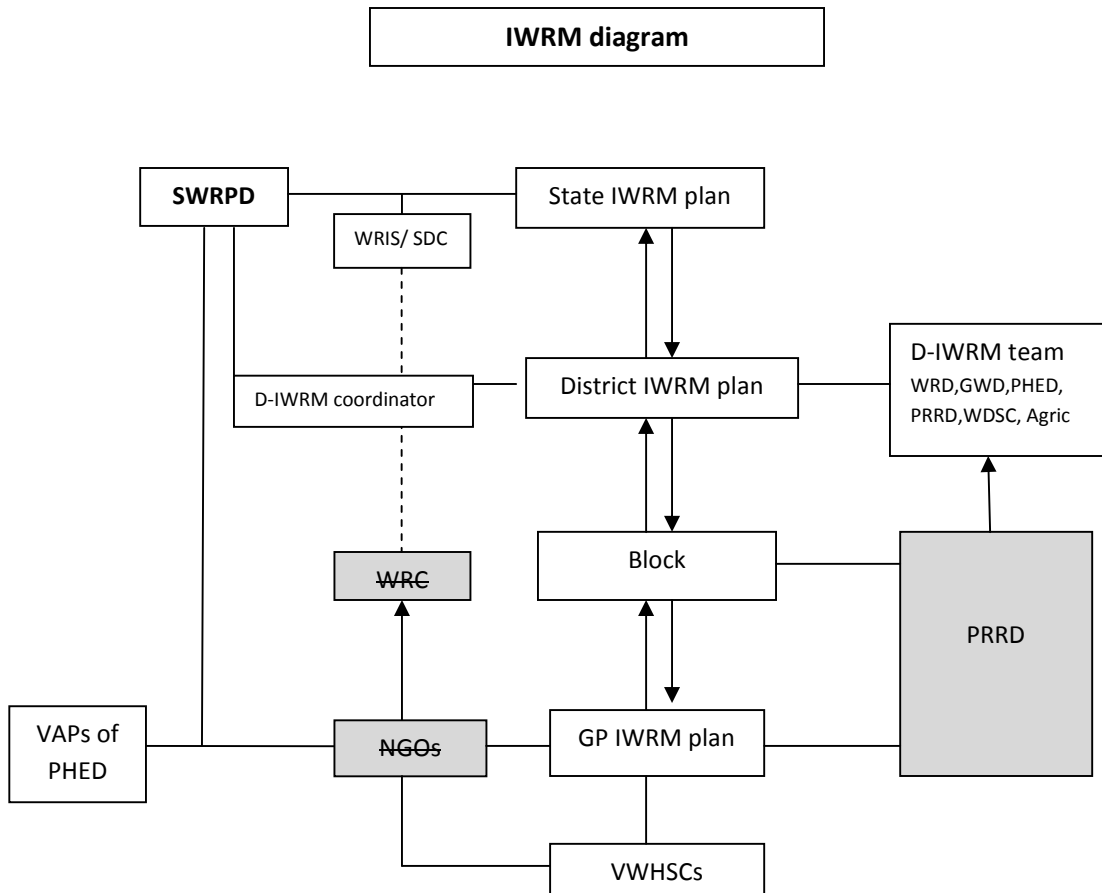
- Paradigm shift of Government from controller of water resources to facilitator
- Provision of formation of Water User Groups and River Basin Organisation.
- A very strong emphasis upon the urgency of implementing effective water resources management.
- Implementation of IWRM, and the changes that this will entail at community level.
- Introduction of reasonable limitations upon uncontrolled groundwater extraction
- Specifics involved in the establishment of a Management Information System (MIS).
- The provision of technical support for water management at community level.
- Improved water-sector communication, both horizontal and vertical
- Promotion of urban sewerage systems and Sewage Treatment Plant (STP) in urban areas.
- Introduction of an effective differential water tariff.
- Involvement of PRIs and NGOs in water sector
- Capacity building of all stakeholders.
- The necessity of legal provision enabling to achieve all of the above.

Extensive IEC campaigns, raising awareness about water conservation, etc. many such activities have been undertaken by the State Water Resource Planning Department(SWRPD) of the Government of Rajasthan under the water sector reform programs, to spread the messages about water being a finite resource, the need for reducing the water requirements, and the need for water conservation by means of rain water harvesting and/or artificial recharge of the groundwater. The Impact evaluations of such interventions are yet to confirm the positive results to overcome the water crisis in the State.

As per the new policy Integrated Water Resources Management (IWRM) is likely to be the key to the success of new Water Policy and in order to attain the success the state wants to create Water Users Organisation/Groups (WUGs) and seek active participation of water users. IWRM approach will be adopted and PRIs will be adequately strengthened for this purpose. Also community level assistance will be provided by PRIs to WUGs to initiate, plan and execute water-related solutions within an IWRM framework. Executive members of WUGs will be

chosen by democratic means, with fair representation by large and small-scale stakeholders, including women.

IWRM Implementation in Rajasthan



Involvement of the communities in IWRM planning and implementation is one of the major intervention as per the State Water Policy (SWP) document. The SWP refers specifically to the Water User Groups (WUGs), usually organised farmers in surface irrigation schemes who shall engage in (i) community awareness programs; (ii) water conservation; (iii) improved water management; and (iv) reduction in groundwater extraction. The State has gone beyond WUGs in command areas, and has targeted about 15,000 Village Water Health and Sanitation Committees (VWHSs) under 3182 GPs in 82 Blocks in 11 Districts of the dryer part of Rajasthan. NGOs have been hired for capacity-building of the VWHSs, GPs and PRIs. After 3 days training in

IWRM concepts, the communities prepared their own GP-level IWRM plans to address the perceived water related problems in their area – including declining water tables from over-extraction of groundwater by scattered farmers.

This has achieved varying degrees of success, but there is general agreement that most plans consist of constructing RWHSs; Tanka's; GWRs; etc. These small construction works are to be seen as supply-side approach (making more water available for consumption) and not 'demand-management'. Over the course of time this has invoked much discussion about: what is demand-management and how can it be applied or be achieved. A general observation on the part of NGOs is that the 3 days time period allocated for training of VWHSCs is about adequate, but the 7 days allowed for preparation of IWRM plans is too short. Proper PRA, checking of data and consultation with the local communities needs about twice the time presently given.

In order to incorporate the demand side management, firstly, strong technological input to guide the usage pattern of water users, namely, farmers, households and industries is required. Secondly, capacity building through trainings, sharing information about improved technologies and best practices especially for domestic water consumption be organised at block level or WUGAs level or GP level. It will help better preparation of IWRM plans.

A State Level Integrated Water Resources Plan composed of average figures is probably not so useful, and should reflect the geographical differences within the State. Some areas may face water crises, but other may not. This regional differentiation needs to be considered at District Level Integrated Water Resources Plans and possibly Block-Level Integrated Water Resources Plans. The latter can be linked to the WRCs that have recently been established by the NGOs for participatory IWRM. Regional issues also have to be addressed, like high chloride/fluoride content of GW, rising GW from nearby major irrigation scheme, pollution from dyeing industries, etc. This also supports need for local level capacity building trainings or awareness building programs in the State.

The foregoing indicates that SWRPD has to keep an update of State/ District/ Block level Integrated Water Resources Plans at all time. This is not only a technical challenge but also an

organizational one. As part of the Institutional Restructuring review SWRPD should immediately start reflecting on this aspect. In anticipation SWRPD may post a D-IWRM coordinator at District level. Obviously PRRD staff at GP, Block and District level needs training on how to deal with the new responsibilities in IWRM- even though these responsibilities do not differ too much from previous practice and relate mainly to keeping a view on total water use as compared with total water available.

Despite all these efforts there are hardly any tangible results. In order to attain sustainable resource (water) utilisation and management and reach tangible results in field there is a need to understand the gaps in the existing interventions and take step to plan new policies, regulatory frame works, programs, institutional changes, and above all capacity building of all the stakeholders to build a new water perspective to manage the resources in the State. This one day training of stakeholders at Chirawa, Jhunjhunu District of Rajasthan was a strong step in that direction.

II. Objectives of the training/capacity building program in Rajasthan

1. To share information on the State Water Policy, projects, programs and activities undertaken by the State Government to support the water sector reform in the State.
2. To share the concept and status of IWRM implementation in the state.
3. Dissemination of improved technologies and practices used for water harnessing and conservation, including domestic water use.

III. Participants and Approach

PRI representatives, CBOs, NGOs involved in water sector in the region, Farmers, Household members, both women and men, having installed rooftop rainwater harnessing system or trying to adopt water conservation practices in the Jhunjhunu District of Rajasthan were targeted as the participants in the training/consultation. It was planned to invite a total of 50 to 60 participants from 20 RJDSS interventation villages for the capacity building training. Suitable Resource persons were identified and transportation and stay arrangements were made at Chirawa/Jhunjhunu. Finally, around **90 farmers** (from 14 villages of the Jhunjhunu district), PRI representatives, Government line department officials, and experts participated in the training/consultation program. The detailed program and list of participants is enclosed.

The training was conducted in a participatory mode by selected resource persons by using PPTs and also interaction with the participants addressing their local issues. Posters, water quality

testing kits and innovative water quality testing machine developed by SEERI scientist were displayed in the training hall.

Local NGOs namely Samagra Vikas Sansthan and RJDSS provided the support in reaching to participants and other logistic matters.

IV. Organisation of the Training/Consultation

The capacity building one day training was organised on August 22, 2013 at RJDSS, Sports complex, Chirawa, Jhunjhunu District of Rajasthan. The logistic and venue support was provided by the Ram Krishna Jaidyal Dalmia Seva Sansthan and Samagra Vikas Sansthan. The financial support was provided by IWP, Gurgaon C/o Host Institution - AROH Foundation, NOIDA.

The consultation was organised in four sessions, namely; inaugural, Technical session I, Technical session II, and Valedictory Session. In total there were six presentations by the resource persons.

V. Training/consultation Report

A one day training/consultation program on **“Dissemination of Improved Technologies and Best Practices Used for Water Harnessing and Conservation”** was organised at RJDSS, Sports complex, Chirawa, Jhunjhunu on August, 22nd 2013 by **Centre for Environment and Development Studies**, Jaipur (CEDSJ) with the local support of Ram Krishna Jaidyal Dalmia Seva Sansthan, and Samagra Vikas Sansthan, Jhunjhunu. Around 90 farmers (from 14 villages of the Jhunjhunu district), PRI representatives, Government line department officials, and experts participated in the training/consultation program. The detailed program is enclosed.

The consultation started with registration of the participants and the introduction of India Water Partnership by Dr. M. S. Rathore, explaining in detail about the objectives and activities undertaken in India and in the South-Asia.



The first speaker in the Session I was Shri Hemant Joshi, Director CCDU. He is responsible for the mass water literacy campaign in Rajasthan and also produces IEC material for the campaign. Rainwater harvesting and water conservation are the prime concern of Government of Rajasthan, his lecture was on rainwater harvesting technologies used in roof top rainwater harvesting and in agricultural field. Since roof top rain water harvesting is being traditionally practiced in Jhunjhunu District and also the participants are presently practicing it in their villages, therefore, the lecture was very relevant in further improving their knowledge about the improved technology and methods in the field as explained by Mr. Joshi.



He also explained the participants about Do's and Don'ts while adopting the program and that was as follows:

Harvested rainwater is used for direct usage or for recharging aquifers. It is most important to ensure that the rainwater caught is free from pollutants. Following precautionary measures should be taken while harvesting rainwater:-

- Roof or terraces uses for harvesting should be clean, free from dust, algal plants etc.
- Roof should not be painted since most paints contain toxic substances and may peel off.
- Do not store chemicals, rusting iron, manure or detergent on the roof.
- Nesting of birds on the roof should be prevented.
- Terraces should not be used for toilets either by human beings or by pets.

- Provide gratings at mouth of each drainpipe on terraces to trap leaves debris and floating materials.
- Provision of first rain separator should be made to flush off first rains.
- Do not use polluted water to recharge ground water.
- Ground water should only be recharged by rainwater.
- Before recharging, suitable arrangements of filtering should be provided.
- Filter media should be cleaned before every monsoon season.
- During rainy season, the whole system (roof catchment, pipes, screens, first flush, filters, tanks) should be checked before and after each rain and preferably cleaned after every dry period exceeding a month.
- At the end of the dry season and just before the first shower of rain is anticipated, the storage tank should be scrubbed and flushed off all sediments and debris.

Water Quality Treatment

- Though rainwater as it falls from the clouds is very pure, it does pick up dirt, dust and bacteria once it falls on the roof.
- It is very necessary to therefore check the quality of the water before using it for consumption.
- Once it is established that the rainwater is not micro-biologically contaminated it can then be consumed directly.
- However if the H₂S strip test suggests that water has bacteria in it, then it must then be treated before it can be used for drinking.
- The method suggested for treating for bacteria is chlorination.
- Liquid chlorine or chlorine tablets are available for treatment of water. Depending on the volume of the rainwater in the tank,
- chlorine needs to be added to disinfect the water.
- Chlorination should be carried out every time there is rain and a fresh infusion of water into the tank.
- Using a chloroscope, residual chlorine of 0.20 mg/litre should be established before the water is used for drinking.

In the next presentation Dr. M. S. Rathore took participants to a journey starting from traditional technology used in Rajasthan for meeting domestic water needs and irrigation demand to the latest modern technologies in domestic water use and in agriculture, what the state wants to achieve and people to adopt. As the focus of traditional technologies were more on conservation of water resources against that the modern technologies emphasising on more extraction and exploitation of resource, of course the conservation part is also taken care off. Relatively the modern technology is much more capital intensive and demand higher level of education status of the users of the technology. Compared to the past there is whole range of technology options available to the consumer and it is his/her choice based on the resource endowment to select suitable option or package of technology. He also warned the policy makers and implementations of water sector programs to first build the capacity of recipients so that right choice of technology package is made and implemented.



Dr. Suneet Shethi delivered lecture on the water quality testing technique as it is the major problem in Rajasthan. Presence of fluoride, nitrate and other impurities are all over Rajasthan. The state government is distributing water quality testing kits to all the Panchayats but people are not aware of this fact and also about the health consequence of their water quality. Dr. Shethi gave practical demonstration of the water testing kit and suggested participants to find out where is the kit available in your village and then test the quality of rainwater they have harvested before using it and also repeated the test at regular intervals.



He also provided information about the Rajasthan Integrated Fluoride Mitigation programme (RIFMP) on going in the state and people should take benefit of it.

Dr. Shashikant Sadistap, Sr. Principal Scientist, Head, AEG Group Central Electronics Engineering Research Institute, CSIR-CEERI , Pilani, Rajasthan, India made presentation on the topic '**Embedded Technology Development For Water & Food Application (Sensing, Decision, Networking)**'. Dr. Sharikant spoke on innovative and user friendly technique of measuring water quality parameters in rural areas. He has developed a peoples' friendly cost effective technology to measure the quality of water and also recommend solutions to the user to overcome the problem of water quality. He made demonstration of the equipment and suggested the PRI and Government representatives to purchase it for their Panchayat.



Emphasizing on the point that providing safe drinking water to masses is becoming a challenging task and all the state governments are preparing plans for the same. Independent organizations and scientific institutions are also playing their key part in achieving this goal. General water quality related problems are; pH, Temperature, Dissolved Oxygen, Clarity: Turbidity, Nitrogen, Phosphorus, Salinity and Alkalinity. Decreases in Dissolved Oxygen can cause problems for wildlife (ex. fish kills) and for many plants which moves up the food web.

Clarity (Turbidity): A measure of the suspended solids, which reduce the transmission of light through scattering or absorption.

Nitrogen and Phosphorus: Nitrogen and Phosphorus are nutrient, like calcium or potassium available in the environment naturally but phosphorus is more limiting in freshwater ecosystems. The problem is when both are more added – fertilizers or confinements.

Salinity: A measurement of the salt content in the water

- < 5 psu = freshwater
- > 5 psu = brackish water
- > 32 psu = sea water

- Examples of salts: sodium, calcium, magnesium, potassium, sulphate, and chloride etc.
- All dissolved from geologic materials, rock at the bottom of the lake.

Conductivity: A measure of the electromagnetic charge of the water. For there to be an electrical charge, there must be free ions or dissolved salts (TDS) and higher the TDS or free ions, the more electrical current that can occur, causing higher conductivity.

Alkalinity: The ability of body of water to buffer from changes in pH. Changes in pH are due to; discharge, plant productivity, animal waste, processes. Asking that why is alkalinity important parameter, he mentioned that because, drastic or constant changes in pH can cause problems for the biota of the lake's ecosystem.

He mentioned about the present practice of monitoring the above listed water parameters and mentioned about the two types of prevalent systems, namely, Active vs. Passive Monitoring Programs. Typical WQMPs are Passive as data collected for a year or so, and then an attempt is made to analyze the data. Usually, this approach fails. What should be done is to go for an active program which includes;

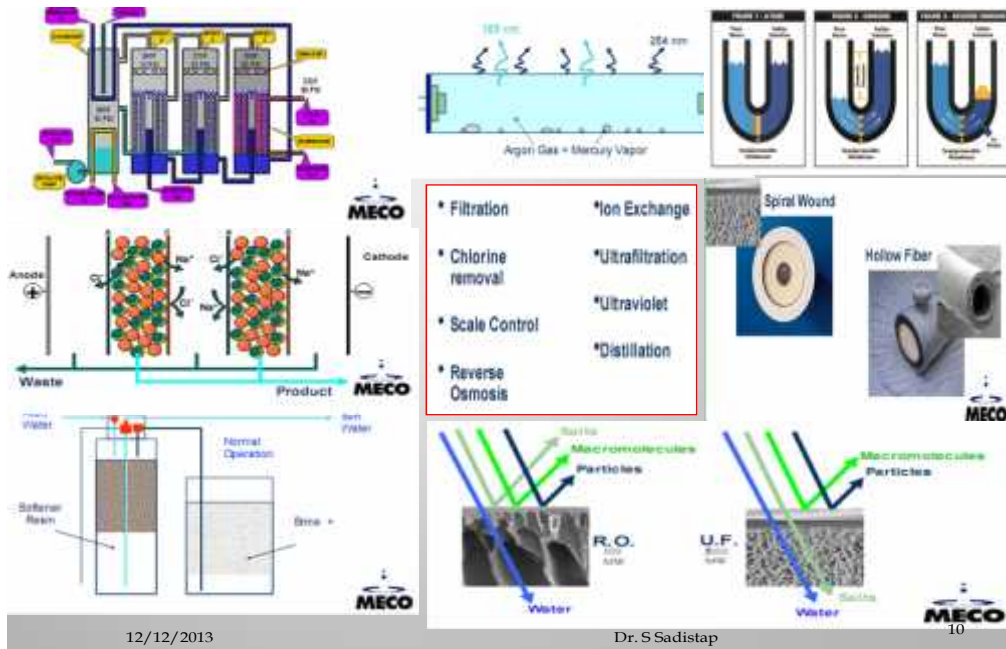
- Data Examined as Collected
- Adjustments Made in Program
- Follow-up Monitoring
- Periodic Sampling (e.g., Weekly, Biweekly, Monthly)
- Event-Based Sampling Should Also Be Conducted
- Associated with Discharges/Runoff and/or the Application of Chemicals to Agricultural Land

Dr. Shashikant spoke of three types of water testing scams;

1. On-site demonstration tricks
2. Misinterpretation of lab test results
3. Fake lab test results

While explaining the merits and demerits of water quality monitoring he mentioned that their expertise and strength is in the following;

- Lab VIEW based Virtual monitoring & Control Systems
 - Easy to use.
 - Low TAT to develop a new application.
 - High Cost, dependent on the vendor.
- Linux based Embedded systems
 - Cost is low when compared with Lab VIEW.
 - Open source platform.
 - Large TAT.
- Smart Embedded Systems
 - Low power & Modular
 - Low cost, configurable
 - LCD graphical display & wireless connectivity



System Features

- Each system will have a wirelessly controlled water quality monitoring system with early warning
- Connected to a remote station wirelessly.
- Proposed system is a battery-operated embedded system which consists of sensors/handheld/laboratory instruments, wireless sensor & a micro controller.
- Each system is registered at the central unit and will be assigned proper network.
- Deployed on: Floating structure, Handheld, Mobile or Boat
- Self-diagnostics features like low battery, poor pond/water quality etc.,

He also demonstrated his machine to the participants and explained them how to use in their village.



Mr. Niranjan Singh of SVS made presentation on the roof top rainwater harvesting technology used by his organisation in 80 villages of Jhunjhunu and rainwater harnessing for recharge of groundwater and technique of monitoring groundwater fluctuations/change. He impressed upon the participants to adopt that and solve the problem of fast depleting groundwater in the District.



He started with describing the existing status of groundwater in the district by giving the situational analysis as follows;

- Six out of eight blocks of Jhunjhunu district is been notified as dark zone, that means water cannot be extracted from the ground.
- In view of this, six out of eight blocks viz. Buhana, Chirawa, Jhunjhunu, Udaipurwati, Surajgarh and Nawalgarh in Jhunjhunu district of Rajasthan has already been notified by Central Ground Water Authority, New Delhi for regulation and control of ground water development.

Thus there is need of storing rain water as well as optimal usage of ground water in daily use and in agriculture by adopting new practices. For this he listed few steps to be followed and those are:

- Conserve Rain Water through Rain water harvesting techniques
- Adopted methods for increasing the ground water recharge
- Optimize usage of ground water in daily use and in agriculture
- Change cropping pattern in favour of low water demanding crops.
- Reducing the wastage of ground water in all usage.

TECHNOLOGIES TO BE ADOPTED IN CONSTRUCTING RAIN WATER HARVESTING STRUCTURES



RECHARGE WELL



The last presentation was by Dr. Hanuman Prasad, Ex Director, Directorate of Extension Education, SKRAU Bikaner and presently member of the Kisan Ayog in the State. He spoke about the 'Water Conservation Techniques in Agriculture' as agriculture uses more than 85% of the available water, conservation of water in irrigation only can help in bridging the increasing gap between supply and demand for water.



He discussed various methods and technology to save water in agriculture and also discussed about various schemes of government to support adoption of these technology. He started with listing the key issues and challenges in Rajasthan, such as;

- Overexploitation of groundwater
- Poor quality of groundwater
- Low & erratic distribution of rainfall
- Lack of knowledge and awareness
- Lack of proper technology and technical norms
- High investment cost for checking feasibility of recharge structures
- Poor site selection and construction, maintenance, community participation
- Lack of coordination among agencies
- Lack of monitoring by government /implementing agencies
- Deterioration of groundwater quality by direct penetration of contaminated surface water / Industrial waste and domestic sewage
- High rate of evaporation & seepage
- Ignorance of traditional water harvesting system and management
- Increase in use of groundwater for agriculture
- Increase in population and deforestation – high rate of erosion
- Indiscriminate digging of bore well / tube well

Discussing these issues he provided suggestions and techniques for soil moisture conservation in agriculture (Before sowing, At the time of sowing, After sowing) as follows:

1. Change in cropping plan according to climatic condition and resource availability.
2. Summer deep ploughing.
3. Ploughing across the slope.
4. Proper selection of crops and varieties.
5. Timely sowing and plant geometry.
6. Efficient use of available water by drip/sprinkler/mini sprinkler/micro irrigation/tunnels/poly house/green house.
7. Introduction of new crops and plants like-Aloevera/olive/date palm.
8. Promotion of arid horticulture -ber, karonda, citrus, lehsua, bael, etc.
9. Crop diversification.
10. Avoid consumptive use of surface and groundwater.
11. Promotion of organic farming.
12. Intensive plantation of khejari tree.
13. Promotion of Agro-forestry.
14. Promotion of kitchen gardening.
15. Promotion of PHM& VA.
16. Irrigation at critical stages.
17. Ban on over exploitation of ground water.
18. Subsurface drip irrigation for orchards.
19. Efficient ground water recharging by different methods like farm ponds, soak pits, etc.
20. Use of waste and sewage water after treatment.
21. Use of drip irrigation methods in saline/brackish water areas.
22. Promote awareness programmers' through training, extension services.

Vote of thanks

Bhupendra Paliwal on behalf of Ram Krishna Jaidyal Dalmia Seva Sansthan and Samagra Vikas Sansthan (RJDSS) proposed the final vote of thanks on behalf of RJDSS, CEDSJ and IWP-India for

the successful completion of the training. Also thanked all the resource persons and participants from the villages, government line department officers and the office bearers of RJDS and CEDSJ for participation and their cooperation in providing support in organising the training at Chirawa .



दैनिक भास्कर

झुंझुनू

शुक्रवार, 23 जनवरी, 2020

जल संचय-संरक्षण की नई तकनीक अपनाएं विशेषज्ञों की कार्यशाला



विद्यार्थ, जल संचय एवं संरक्षण कार्यशाला को संबोधित करने पूर्ण वैश्वीकरण।

भास्कर न्यूज़, विद्यार्थ

भारतीय एवं पूर्ण वैश्वीकरणों ने बदलने की नई तकनीक अपनाने पर जोर दिया है। विशेषज्ञ एवं विद्यार्थ कार्यक्रमों के माध्यम से और नई तकनीक अपनाने पर जोर दिया है। कार्यक्रमों और समूह विद्यार्थ कार्यक्रम के माध्यम से विशेषज्ञों की कार्यशाला में विशेषज्ञों ने यह बात कही।

जहाँ जल संचय एवं संरक्षण के कार्यक्रम और वैश्वीकरण तरीके विद्यार्थ पर नई तकनीक अपनाने पर जोर दिया है। कार्यक्रमों और समूह विद्यार्थ कार्यक्रम के माध्यम से और नई तकनीक अपनाने पर जोर दिया है। कार्यक्रमों और समूह विद्यार्थ कार्यक्रम के माध्यम से और नई तकनीक अपनाने पर जोर दिया है।

डॉ. एमएस. एल्टी ने विद्यार्थ की नई तकनीक और जल संचय-संरक्षण को आधुनिक तकनीक के उपयोग को समझने पर जोर दिया। पूर्ण वैश्वीकरण डॉ. एल्टी ने विशेषज्ञों के कार्यक्रमों को आकर्षक बनाने की तकनीक को अपनाने की आवश्यकता बताई।

संरक्षण एवं भ्रष्टाचार को रोकने के लिए, विशेषज्ञों ने राष्ट्रीय संरक्षण तकनीक को समाज की जनता के माध्यम से प्रचारित करने की बात कही। समूह विद्यार्थ कार्यक्रम के माध्यम से विद्यार्थों को जल संचय एवं संरक्षण की विविध विधियों को जानकर ही नई तकनीक अपनाने की बात कही। विशेषज्ञों ने जल के घरेलू उपयोग की तकनीक तथा विशेषज्ञों के नए तकनीकों में जल को सुरक्षित बनाए रखने की तकनीक बताई।

राजस्थान पत्रिका
 प्रति. संख्या
 22.08.2013



कार्यक्रम विज्ञान में इन्फॉर्मेशन टेक्नोलॉजी परिसर में दुर्गापुर को सशोधन को संबोधित करने में .संयुक्त प्रयास व संयोजन (अध्यक्षिता)

पानी बचाने की तकनीक बताई

दिल्ली - राजस्थान प्रसारण निगम (राजस्थान टेलीविजन) के अध्यक्ष डॉ. राजेश कुमार शर्मा ने दिल्ली में आयोजित एक कार्यक्रम में पानी बचाने की तकनीक के बारे में जानकारी दी। कार्यक्रम में डॉ. शर्मा ने बताया कि पानी बचाने के लिए हमें अपने जीवन के हर क्षण में सावधानी बरतनी चाहिए। उन्होंने कहा कि पानी एक अमूल्य संपदा है और हमें इसे बचाने की आवश्यकता है। उन्होंने कहा कि पानी बचाने के लिए हमें अपने जीवन के हर क्षण में सावधानी बरतनी चाहिए।

दिल्ली को होने वाली परेशानियों पर प्रकाश डाला। डॉ. राजेश कुमार शर्मा ने दिल्ली में आयोजित एक कार्यक्रम के बारे में जानकारी दी। कार्यक्रम में डॉ. शर्मा ने बताया कि पानी बचाने के लिए हमें अपने जीवन के हर क्षण में सावधानी बरतनी चाहिए। उन्होंने कहा कि पानी एक अमूल्य संपदा है और हमें इसे बचाने की आवश्यकता है। उन्होंने कहा कि पानी बचाने के लिए हमें अपने जीवन के हर क्षण में सावधानी बरतनी चाहिए।

जल संवय एवं संरक्षण के इस्तेमाल में आने वाली प्रचलित एवं नवीन तकनीकियों का प्रसार

दिनांक: 22 अगस्त 2013

क्रमांक	नाम	पता	मोबाइल नंबर	हस्ताक्षर
1	गल्प/गागरान	पुष्पल पुर	8003488826	4/1/4
2	बाहुल/सुधारा	महाराजपुर	9953194033	सुधारा
3	महाराज/बिरवार	महाराजपुर	7891499063	MCM
4	लक्ष्मण/हरदा	महाराजपुर	9587100594	सुधारा
5	रामदास/पुष्पल	महाराजपुर	9502960210	सुधारा
6	सुधाकर/पुष्पल	"	-	-
7	अनिल/महाराज	"	-	-
8	महाराज/हरदा	पुष्पल	9950432585	सुधारा
9	महाराज/पुष्पल	महाराजपुर	9953941590	सुधारा
10	महाराज/पुष्पल	महाराजपुर	9753121250	सुधारा
11	सुधाकर/हरदा	पुष्पल	9414742433	सुधारा
12	सुधाकर/पुष्पल	"	9783121250	सुधारा
13	महाराज/महाराज	"	-	सुधारा
14	सुधाकर/हरदा	"	9929962987	सुधारा
15	अनिल/पुष्पल	"	9785030531	सुधारा
16	सुधाकर/हरदा	"	-	सुधारा

जल संचय एवं संरक्षण के इस्तेमाल में आने वाली प्रचलित एवं नवीन तकनीकियों का प्रसार

दिनांक: 22 अगस्त 2013

क्रमांक	नाम	पता	मोबाइल नंबर	हस्ताक्षर
17	श्रीकांत (संपन्न)	आरुण	9107990171	SUNNY
18	अरिंद / अमरुड	लखनऊ	9352980641	अरिंद
19	अरुण / अमरुड	अरुण	9571692578	अरुण
20	अरुण / अमरुड	लखनऊ	-	अरुण
21	अरुण / अमरुड	अरुण	9468875396	अरुण
22	अरुण / अमरुड	अरुण	9460619571	अरुण
23	अरुण / अमरुड	अरुण	9674188910	अरुण
24	अरुण / अमरुड	अरुण	9828286527	अरुण
25	अरुण / अमरुड	"	9784618148	अरुण
26	अरुण / अमरुड	"	9983524032	अरुण
27	अरुण / अमरुड	अरुण	-	अरुण
28	अरुण / अमरुड	अरुण	-	अरुण
29	अरुण / अमरुड	अरुण	01576819755	अरुण
30	अरुण / अमरुड	अरुण	9783406811	अरुण
31				
32				

जल संचय एवं संरक्षण के इस्तेमाल में आने वाली प्रचलित एवं नवीन तकनीकियों का प्रसार

दिनांक: 22 अगस्त 2013

क्रमांक	नाम	पता	मोबाइल नंबर	हस्ताक्षर
33	श्री नाथूराम केशराम	काकरभुंज	9571385067	नाथूराम
34	श्रीजानक / वसिष्ठा	चाहरवाला	9672071071	श्रीजानक
35	कुशाकुमार / लक्ष्मी	इंदरपुरा	9660497887	कुशाकुमार
36	दोहराबाई / सावराम	सावाम	5417741713	दोहराबाई
37	गुलाबकुंड / जनकप्रसाद	सोमपुर	9829029327	गुलाबकुंड
38	रघुनाथप्रसाद / अजयप्रसाद	जावडा	9686955908	रघुनाथप्रसाद
39	प्रभातीनारायण / प्रवृत्त	नामवा	9680865501	प्रभाती
40	इन्दुदेवि (सायन/किसा)	किठाना	9414540601	इन्दुदेवि
41	विष्णुविष्णुप्रसाद/नेरप	सोमपुर	9413667498	विष्णु
42	बंशीधरप्रसाद / जगतप्रसाद	चरडीवाला	9950461054	बंशीधर
43	सरोजदेवी / शेषवीर	गोविन्दपुरा	9694157962	सरोज
44	इशिता / उमेशकुमार	गोविन्दपुरा	-	इशिता
45	रमेश / राजकुमार	''	-	रमेश
46	कमलेश / आशादेवि	''	-	कमलेश
47	शिवप्रसाद	सरनडा	-	शिवप्रसाद
48				

जल संवय एवं संरक्षण के इस्तेमाल में आने वाली प्रचलित एवं नवीन तकनीकियों का प्रसार

दिनांक: 22 अगस्त 2013

क्रमांक	नाम	पता	मोबाइल नंबर	हस्ताक्षर
49	श्री दान सिंह वाठड	कुमभगर	9829328208	
50	श्री महेश सिंह	महरपुर	998394	
51	राज सिंह/सुकुमिह	"	9413206265	महेश सिंह
52	चरणपाल/मालूम	कुमभगर	9799227529	श्री प्रदीप सिंह
53	अनीलाल/राजगुरु	कुमभगर	9799627303	श्री प्रदीप सिंह
54	सुदराम सिंह/सुकुमिह	"	-	श्री प्रदीप सिंह
55	अनंद सिंह/महाराजगुरु	महरपुर (अभयपुर)	9785684409	श्री प्रदीप सिंह
56	शिवराम/सुकुमिह	"	9414542277	श्री प्रदीप सिंह
57	शिवराम/हरपालगुरु	अभयपुर	9799154199	श्री प्रदीप सिंह
58	श्री शंकर सिंह/रामसिंह	शिवराम	9549521590	श्री प्रदीप सिंह
59	शंकर सिंह/राजगुरु	"	-	श्री प्रदीप सिंह
60	शंकर सिंह/शिवरामसिंह	शिवराम	9460845424	श्री प्रदीप सिंह
61	शंकर सिंह/सुकुमिह	शिवराम	01596315096	श्री प्रदीप सिंह
62	सुकुमिह/शिवराम	शिवराम	9410923290	श्री प्रदीप सिंह
63	रामसिंह/शिवराम	"	9785818146	श्री प्रदीप सिंह
64	शंकर सिंह/महाराजगुरु	"	9799487362	श्री प्रदीप सिंह

Agenda for the Training Program:

Session: I	Registration	10.00 -10.15AM	RJDSS Members
	Introduction- IWP	10.15-10.30 AM	Dr. M. S. Rathore, Director, CEDSJ
	High Tea	10.30-11.00 AM	
Session: II	Rain Water Harvesting – Peoples’ Perspective	11.00-11.30 AM	Sh. Hemant Joshi, Executive Director CCDU, Rajasthan
	Discussion	11.30-11.45 PM	
	Traditional and Modern Technology In Agriculture and Domestic Use: Peoples’ Dilemma.	11.45-12.15 PM	Dr. M. S. Rathore, CEDSJ
	Discussion	12.15.12.30 PM	
	Technique of Water Quality Testing in Villages	12.30-01.00 PM	Dr. Suneet Sethi, CCDU
	Discussion	01.00-01.15 PM	
	Lunch Brake	01.15-02.00 PM	
Session: III	Traditional Practices of Water Harvesting and Conservation for Domestic Use.	02.00-02.30 PM	Niranjan Singh, SVS
	Discussion	02.30-02.45 PM	
	Innovative and User Friendly Technique of measuring Water Quality Parameters in Rural Areas	02.45-03.15 PM	Dr. Shrikant.S , CEERI
	Discussion	03.15-03.30 PM	
	Tea Brake	03.30-03.45 PM	
Session: IV	Water Conservation Technologies in Agriculture	03.45-4.15 PM	Dr. Hanuman Prasad
	Discussion	04.15-04.30 PM	
	Vote of Thanks	04.30-04.45 PM	B. Paliwal, RJDSS