Government of Karnataka

Directorate of Municipal Administration, Bangalore.

Training schedule on Water Scarcity Management in ULBs

(Through water conservation, Water Literacy – RWH & Recharging of ground water table)

Implemented Scheldule

Batch - 2

Date: 21st – 23rd June 2018
Venue: Nethravathi Hostel, SIUD, Mysuru

Sri H Ramesha
Course Director
Ph.9481169733,
Email: hebbale@gmail.com

Vijesh K
Course Assistant

State Institute of Urban Development

ATI Campus, Lalitha Mahal Road, Mysore-570 011
Ph: +91-821-2520163, 2520116, Fax: +91-821-2520164
E-mail: directorsiud@gmail.com, Website: www.siudmysore.gov.in

Aim:

The training will cover the following aspects with regard to water scarcity management through Rain Water Harvesting and Recharging.

- Importance & need of Rain Water Harvesting & Recharging.
- Necessity of RWH & Recharging with respect to both quantity and quality of water available.
- Utilization of rain water to mitigate water demand and scarcity management.
- Efficient water management using Rain water harvesting & Recharging.
- Various methods of recycling of waste water.
- Sustainability of ground water by Recharging under various conditions.
- Different methods of RWH & Recharging options & techniques.
- Prevailing acts & policies in various Departments.
- Improvement in quality of bore well/Open well water through recharging.
- Merits & Demerits of RO purifying system.
- Advantages and uses of Water auditing, smart of water metering, GIS application for network distribution analysis etc;

Objectives:

After the completion of the 3 days programme, the participants will be able to

- Explain the Importance & need of Rain Water Harvesting & Recharging wrt sustainability.
- Describe the necessity of RWH & Recharging with respect to both quantity and quality of water available.
- Describe the efficient drinking water management during scarcity in ULBs.
- Narrate the utilization of rain water to mitigate water demand.
- Explain the water management using Rain water harvesting & Recharging.
- List out the various methods of recycling of waste water.
- Describe the sustainability of ground water by Recharging under various conditions.
- List out the different methods of RWH & Recharging options & techniques.
- Describe prevailing acts & policies in various Departments.
- List out the advantages bore well/open well water through recharging wrt quality.
- List out the merits & Demerits of RO purifying system.
- Explain the advantages and uses of Water auditing, smart of water metering, GIS application for network distribution analysis etc;

Course Methodology:

1. Lecture/Presentation through PPTs
2. Videos of best examples
3. Case Studies.
4. Field/Exposure Visits
5. Group Discussions

Target Group:

Engineers from Urban Local Bodies will be the participants of the training.

Duration:

The course is scheduled for 3 **days** (2.5 days of class room and ½ a day field visit).

Water Scarcity Management in ULBs

(Through water conservation, Water Literacy – RWH & Recharging of ground water table)

Time	Topics / Sessions	Resource Persons
Day -1	**21.6.2018 (Thursday)**	
9.30 to 10.00 am	Registration	**Sri Vijesh K,** Course Assistant
10.00 to 10.15 am	Welcome Key Note Address and Objectives	**Sri Venkatesh Kadagadkai G,** Director, SIUD**,** Mysuru
10.15 to 1.45 pm	**Water Conservation, Water literacy & RWH:** Water- Availability and its importance. Challenges in water distribution, Water quality & quantity issues. Importance of Rain Water Harvesting, Methods of RWH, Drinking & cooking water security through RWH, Types of filters and pipes used in RWH and its benefits of RWH, Recharging of Borewells, case studies etc	**Sri Ramesha H,** Faculty/AEE, SIUD, Mysore Ph.9481169733 Email : hebbale@gmail.com
1.45 to 2.30 pm Launch Break		
2.30 to 5.45 pm	**Policy issues on RWH and recharging:** • RWH and Recharging experiences in different states with Policies, Acts, Challenges in implementation along with case studies • Challenges faced in motivation of public • Importance of Ground/Surface Water Recharging, Roof top rain harvesting, Best Practices with case studies on RWH & Recharging wrt Urban areas	**Dr.Sekhar Raghavan,** Akash Ganga Trust, Channai. TN. mobile : +91 96770 43869 Email : sekar1479@yahoo.co.in
Day -2	**22.6.2018 (Friday)**	
9.30 to 11.30 am	**Integrated water management :** • Basic issues & challenges • Resource recovery & conservation • Recycling of water & Waste water management, Biology of Waste water • Micro to macro level Eco system approaches for sustainable solutions • Advanced treatment systems & DEWATS with Case studies • Importance of open wells, Urban lakes, tanks etc; Strategies in Recycling of waste water in Urban Areas & Industries etc; with case studies	**Sri U.N Ravi Kumar,** Environmental Consultant, Mysuru. Ph. 0821-2544014 Email: unravi59@gmail.com
11.45 to 1.45 pm	**Water source improvement strategies :** • Issues and Challenges in water distribution in ULBs • Improvements in bulk water supply systems	**Sri K P Jayaramu,** Chief Engineer, KUWS & DB, Mysuru. Ph: 9480813129

	• Implementation of 24x7 water supply management • Important of operations and maintenance in jack well, pump house, rising main and distribution system • Case studies on waste water management • CASE Studies and best practices on water supply & distribution etc;	Email: jayaram.savewater@gmail.com
1.45 to 2.30 pm Lunch Break		
2.30 to 6.00 pm	**Field visit:** • To witness RWH, Recharging**,** waste water Recycling**,** Bio gas**,** Energy efficiency technics adopted**.**	**Sri Kikkeri Ramesh's** house, Consultant, V-LEAD, Mysore**.** Email: ramsudha2001@gmail.com Ph: 9620543516
	• Witnessed Rain water harvesting, filtering methods recharging adopted in institution of engineers building at JLB road. • Witnessed sensor tape to measure level of ground water in the bore wells, Automated DWLR (Digital Water Level Recorder) at senior geologist office, Ground water board.	
Day – 3	**23.6.2018 (Saturday)**	
9.30 to 1.45 pm	**Water Scarcity Management in ULBs** • Issues and challenges in Water Scarcity Management • Precautionary measures • Strengthening of water at source • Water Budgeting • Water monitoring through detection of leakages and plugging • Water management in supply and distribution network with software analysis etc; • Smart solutions in water management • Best examples with case studies	**Sri G M Shivaraju,** Rtd. Additional Chief Engineer, BWSSB, Bangalore Ph. 99455 40055 Email: shivaraju_gm@yahoo.com
1.45 to 2.30 pm Lunch Break		
2.30 to 4.00 pm	**Ground Water Recharging technics**: Ground Water Recharging technics through Check dams, Banadaras, Katta, Pickups, storm drains as per IRC codes, Planning, Design & Technical considerations etc;	**Sri Ramesha H,** Faculty/AEE, SIUD, Mysore Ph.9481169733 Email : hebbale@gmail.com
4.00 to 5.00 pm	• Evaluation • Feedback • Valedictory	**Sri Venkatesh Kadagadkai G,** Director, SIUD**,** Mysuru **Sri H. Ramesha,** Faculty/AEE, SIUD, Mysuru

Sd/-
Course Director