

# 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 Schedule

#### Batch - 1

Date: 6<sup>th</sup> – 8<sup>th</sup> June 2018

Venue: Nethravathi Hostel, SIUD, Mysuru

#### Sri H Ramesha

Course Director

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#### Vijesh K

Course Assistant



## State Institute of Urban Development

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**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
<b>Day -1      6.6.2018 (Wednesday)</b>		
9.30 to 10.00 am	Registration	<b>Sri Vijesh K</b> , Course Assistant
10.00 to 10.15 am	Welcome Key Note Address and Objectives	<b>Sri Venkatesh Kadagadkai G</b> , Director, SIUD, Mysuru
10.15 to 1.30 pm	<b>Water Conservation, Water literacy &amp; RWH:</b>  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 <b>Borewells</b> , case studies etc;	<b>Sri Ramesha H</b> , Faculty/AEE, SIUD, Mysore Ph.9481169733 Email : hebbale@gmail.com
<b>1.30 to 2.30 pm    Launch Break</b>		
2.30 to 5.30 pm	<b>Policy issues on RWH and recharging:</b> <ul style="list-style-type: none"> <li>• RWH and Recharging experiences in different states with Policies, Acts, Challenges in implementation along with case studies</li> <li>• Challenges in motivation of public</li> <li>• Importance of Ground/Surface Water Recharging, Roof top rain harvesting, Best Practices with case studies on RWH &amp; Recharging wrt Urban areas</li> </ul>	<b>Dr.Sekhar Raghavan</b> , Akash Ganga Trust, Channai. TN. mobile : +91 96770 43869 Email : sekar1479@yahoo.co.in
<b>Day -2      7.6.2018 (Thursday)</b>		
9.30 to 11.30 am	<b>Integrated water management :</b> <ul style="list-style-type: none"> <li>• Basic issues &amp; challenges</li> <li>• Resource recovery &amp; conservation</li> <li>• Recycling of water &amp; Waste water management, Biology of Waste water</li> <li>• Micro to macro level Eco system approaches for sustainable solutions</li> <li>• Advanced treatment systems &amp; DEWATS with Case studies</li> <li>• Importance of open wells, Urban lakes, tanks etc; Strategies in Recycling of waste water in Urban Areas &amp; Industries etc; with case studies</li> </ul>	<b>Sri U.N Ravi Kumar</b> , Environmental Consultant, Mysuru. Ph. 0821-2544014 Email: <a href="mailto:unravi59@gmail.com">unravi59@gmail.com</a>

11.45 to 1.45 pm	<b>Water source improvement strategies :</b> <ul style="list-style-type: none"> <li>• Issues and Challenges in water distribution in ULBs</li> <li>• Mitigation strategies in drinking water supply in urban areas/ ULBs</li> <li>• Importance of operation and maintenance in jack well, pump house, rising main and distribution etc;</li> </ul>	<b>Sri K P Jayaramu,</b> Chief Engineer, KUWS & DB, Mysuru. Ph: 9480813129 Email: <a href="mailto:jayaram.savewater@gmail.com">jayaram.savewater@gmail.com</a>
<b>1.45 to 2.30 pm Lunch Break</b>		
2.30 to 5.30 pm	<b>Field visit:</b> <ul style="list-style-type: none"> <li>• Witnessed Rain Water Harvesting, Recharging, waste water Recycling etc; adopted</li> <li>• Witnessed Rain Water Harvesting, filtering methods recharging adopted in Institution of Engineers building at JLB road.</li> </ul>	<b>Sri Kikkeri Ramesh's</b> house, Consultant, V-LEAD, Mysore. Email: ramsudha2001@gmail.com Ph: 9620543516
<b>Day – 3 - 8.6.2018 (Friday)</b>		
9.30 to 1.30 pm	<b>Water Scarcity Management in ULBs</b> <ul style="list-style-type: none"> <li>• Issues and challenges in Water Scarcity Management</li> <li>• Precautionary measures</li> <li>• Strengthening of water at source</li> <li>• Water Budgeting</li> <li>• Water monitoring through detection of leakages and plugging</li> <li>• Water management in supply and distribution etc;</li> <li>• Smart solutions in water management</li> <li>• Best examples with case studies</li> </ul>	<b>Sri G M Shivaraju,</b> Rtd. Additional Chief Engineer, BWSSB, Bangalore Ph. 99455 40055 Email: <a href="mailto:shivaraju_gm@yahoo.com">shivaraju_gm@yahoo.com</a>
<b>1.30 to 2.30 pm Lunch Break</b>		
2.30 to 4.00 pm	<b>Ground Water Recharging technics:</b> Ground Water Recharging technics through Check dams, Banadaras, Katta, Pickups, storm drains as per IRC codes, Planning, Design & Technical considerations etc;	<b>Sri Ramesha H,</b> Faculty/AEE, SIUD, Mysore Ph.9481169733 Email : hebbale@gmail.com
4.00 to 5.00 pm	<ul style="list-style-type: none"> <li>• Evaluation</li> <li>• Feedback</li> <li>• Valedictory</li> </ul>	<b>Sri Venkatesh Kadagadkai G,</b> Director, SIUD, Mysuru  <b>Smt. M. V. Sudha,</b> Deputy Director, SIUD, Mysuru  <b>Sri H. Ramesha,</b> Faculty/AEE, SIUD, Mysuru

Course Director

