LABORATORY TRAINING MODULE
ENSURING SAFE DRINKING WATER IN RURAL HOMES

Mode of delivery for training programme:
Virtual training: 3 hours per day for 2 days

Dates: 15 – 16 November, 2021

Participants: 50 participants from Middle Management Level from Jal Jeevan Mission/district laboratories and sub divisional/block labs

Objective: To train the participants for optimum usage of laboratory resources for scaling up testing

Outcome: The participants learn to provide safe drinking water to the households

### Day 1

**Module 1 – Overview-Public Health, Water Quality Standards, Testing and Surveillance**

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<thead>
<tr>
<th>S. No.</th>
<th>Time</th>
<th>Title</th>
<th>Outcomes</th>
<th>Coordinator</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>10.00–10.05 AM</td>
<td>Welcome note</td>
<td>Welcoming the participants</td>
<td>Sushmita Sengupta, Programme Lead, KRC-JJM</td>
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</table>
| 2     | 10.05–10.15 AM | Setting up the agenda                                               | • Climate change
• Need for clean drinking water
• Connecting water and health
• Source sustainability for drinking water (video)                                           | Sunita Narain, Director General, CSE                                                                 |
| 3     | 10.15–11:00 AM | Overview                                                           | • Overview of JJM
• Involvement of community in water quality surveillance, awareness
• Introducing water quality monitoring and surveillance
• Role of state, district/subdivisional level laboratories
• Water Quality Management Information System- Geotagging of drinking water sources, developing MIS, maintaining dashboards, real time water quality tracking mechanism to develop a periodic database and consequent creation of alert mechanism | Jal Jeevan Mission                                                                                       |
| 4     | 11:00–11:15 AM | Overview, Status and Mitigation of Water quality in India          | • Impacts of contaminated water in human health                            | Madhumita Dobe, Director – Professor & Dean Head, Department of Health Promotion & Education All India Institute of Hygiene & Public Health |
| 5     | 11:15–11:20 AM | Break                                                              |                                                                           |                                                                                             |
| 6     | 11:20–11:45 AM | Overview, Status and Mitigation of Water quality in India          | • Introduction to chemical and bacteriological contaminants in water
• What are standards for water quality in India (BIS/CPHEEO)
• What is difference between acceptable limits and permissible limits
• What are the health impacts of different contaminants                                         | Garima Water Lab-Engineer, Delhi Pollution Control Committee,                                           |
<table>
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<tr>
<th>Time</th>
<th>Module</th>
<th>Session Title</th>
<th>Presenter</th>
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<tr>
<td>7 11:45–12:15 PM</td>
<td>Overview, Status and Mitigation of Ground Water quality in India</td>
<td>Durjay Chakraborty (Former Senior Scientist, Central Groundwater Board)</td>
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<td>8 12:15–1:00 PM</td>
<td>Module 2: Setting up or strengthening state/district/sub divisional laboratories</td>
<td>Manish S Yadav, World Health Organization, Geneva-Trainer, Lab Quality Management System &amp; Inspections</td>
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<td>9 10:00–10:20 AM</td>
<td>Introduction to Laboratory Instruments, Calibration and Maintenance, Safety and Safe handling procedures, Testing and NABL accreditation of laboratories</td>
<td>Manish S Yadav, World Health Organization, Geneva-Trainer, Lab Quality Management System &amp; Inspections</td>
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<td>10 10:20–10:40 AM</td>
<td>Overview of Sampling Methodology</td>
<td>Arvind Singh CSE-Sr. Scientist</td>
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<td>11 10:40–11:00 AM</td>
<td>Field/Mobile Testing Kits – Operation, Maintenance and Utility</td>
<td>Vinod Vijayan CSE-Sr. Scientist</td>
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<td>12 11:00–11:05 AM Break</td>
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<td>13 11:05–11:25 AM</td>
<td>Emergency response procedures</td>
<td>Sama Kalyan Chakravorthy CSE-Research Scientist</td>
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14 11:25 AM–12:30 PM  Demonstration of Field/Mobile Testing Kits and Laboratory Testing Protocols for Water quality parameters

- Demonstration of FTKS for quality parameters
- Small films on sampling, preservation of samples, calibration of instruments, testing in laboratories using advanced instrumentation.

Environment Monitoring Lab Team, CSE

15 12:30–1:00 PM  Live quiz on polls and Feedback and Q&A

For further queries:
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