



Government of India
Ministry of Jal Shakti
Department of Water Resources, River Development & Ganga Rejuvenation
CENTRAL GROUND WATER BOARD
RAJIV GANDHI NATIONAL GROUND WATER TRAINING & RESEARCH INSTITUTE
(RGNGWTRI)

Online
Training Program
On

Water Resources Management: Principles and Practices
(with special emphasis on groundwater)

09-13 March 2026



RGNGWTRI
Sector 23, Atal Nagar, Nava Raipur,
Chhattisgarh, India
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<https://cgwb.gov.in/en/training-and-capacity-building>

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BACKGROUND

Groundwater forms the backbone of water security in many parts of the world, particularly in arid and semi-arid regions. However, unsustainable extraction, climate variability, and contamination threats have made effective groundwater management a global challenge. The integration of Geographic Information Systems (GIS), Remote sensing, and other Emerging Technologies and modelling tools provides new opportunities to strengthen decision-making and ensure sustainable groundwater sources. This training programme is designed to provide professionals with the knowledge and tools required to plan and implement strategies that balance development needs with sustainability.

OBJECTIVE

The purpose of this training is to introduce modern tools and techniques like remote sensing, GIS, heli-borne surveys, mathematical modelling etc. used for exploration, monitoring, assessment and management of groundwater resources. Principles and practices of application of these tools and techniques will be introduced. The training will also cover relevant examples especially from India.

COURSE CONTENT

- Introduction to the science of groundwater: Occurrence and Movement of groundwater, Aquifers and their characteristics, Groundwater Recharge, Groundwater Use, Groundwater Issues and Management alternatives.
- Principles and Concepts of Remote Sensing and GIS: Principles of Remote Sensing, , introduction of Geographic Information Systems, Geospatial Data Processing, Global Datasets.
- Ground Water Exploration and Assessment: Aquifer Mapping, Geophysical exploration, Heli-borne surveys for groundwater exploration, exploratory drilling, Quantification of availability and use of groundwater.
- Ground Water Monitoring: Water Table and Piezometric Levels, Monitoring Wells, Digital Water Level Recorders (DWLR) and High frequency water level monitoring, Flowmeters, Measuring spring discharge etc.
- Groundwater Modelling and Decision Support Systems: Groundwater Flow modelling, contaminant transport modelling, databases, decision support systems
- Groundwater Quality Assessment and Management: Types and sources of common contaminants. Sampling and analyses of contaminants. Water Quality Standards. Groundwater quality issues and their management.
- Groundwater Management: Artificial Recharge, Rainwater Harvesting, rooftop Rainwater Harvesting, Demand management measures, increasing water use efficiency, regulation and control of groundwater extraction.

TARGET GROUP

The programme is intended for mid and senior-level officials, researchers, and practitioners working in the field of groundwater, water resources, and environmental management in AARDO Member countries.

ESSENTIAL QUALIFICATION

- Bachelor's Degree in Engineering / Science.
- Professional experience in water resources management.
- Working proficiency in English and ICT skills.
- Commitment to participate actively in all online sessions

DURATION & TIMING

Over a period of 5 days- 2 hours per day and will be delivered in 10 hours.

Duration : 5 Days

Timing : 2 - 4 PM (IST) - GMT +5.30 Hrs

Dates : 09 - 13. 03. 2026

Mode : Online (Zoom / Google Meet)

APPLICATION PROCESS, SELECTION AND CERTIFICATION

Selection Process	<ul style="list-style-type: none">· Maximum participants will be 100.· Participants will be nominated and selected by AARDO and RGNGWTRI.· Selected participants will receive login credentials for accessing the training platform.
How to Apply	<ul style="list-style-type: none">· Login through given link http://aardo.org/formDD.php .· Fill in and submit the application form on or before 03 March 2026· Print, sign, and forward it with the recommendation of the Nodal Ministry / Centre of Excellence to: iec@aardo.org
Certification	<ul style="list-style-type: none">· An E-Certificate jointly signed by Secretary-General, AARDO and Regional Director, RGNGWTRI will be awarded upon successful completion of the training.
Whatsapp Group	<ul style="list-style-type: none">· A dedicated WhatsApp group will be created for participants, trainers, and organizers for smooth communication and real-time updates.

Due to limitation on participation only selected candidates will be intimated through AARDO Selected participants have to actively attend all e-training sessions to be eligible for course completion e-certificates.

About AARDO

The AFRICAN- ASIAN RURAL DEVELOPMENT ORGANIZATION (AARDO) is a rural centric inter- governmental autonomous organization located at 2, State Guest Houses Complex, Chanakyapuri, New Delhi 110 021, India.

African Asian Rural Development Organization is mandated to develop understanding among members for better appreciation of each other's problems and to collectively explore, opportunities for coordination of efforts for the welfare and eradication of thirst, hunger, illiteracy, disease and poverty amongst rural people in the African-Asian region. The Organization comprises thirty six (36) members, which include thirty one (32) countries namely, Burkina Faso, Egypt, Ethiopia, Eswatini, Gambia, Ghana, Kenya, Liberia, Libya, Malawi, Mauritius, Morocco, Namibia, Nigeria, Sierra Leone, Sudan, Tunisia and Zambia from Africa, and Bangladesh, R.O. China (Taiwan), India, Iraq, Jordan, R.O. Korea, Lebanon, Malaysia, Oman, Palestine, Pakistan, Sri Lanka, Syria and Yemen from Asia, as the full members, and Korea Rural Community Corporation (KRC), R.O. Korea, the Agricultural Bank of Sudan (ABS), Sudan, Ekiti Chamber of Commerce, Industry, Mines & Agriculture (EKICCIMA), Nigeria and Economic and Social Development Center (ESDC), Palestine as Associate Members.

AARDO is promoting South-South Triangular cooperation in the domain of agricultural and rural development. As such, AARDO is championing and advocating more science to rural societies for inclusive transformation of rural areas in Africa and Asia.





Rajiv Gandhi National Ground Water Training and Research Institute (RGNGWTRI) is the premier capacity-building and research institute of the Central Ground Water Board (CGWB), Ministry of Jal Shakti, Government of India, located at Naya Raipur, Chhattisgarh. Since 1997, the institute has been engaged in training professionals, sub-professionals, and stakeholders across India and abroad in the field of groundwater management. RGNGWTRI specializes in hydrogeology, aquifer mapping, modelling, and integrated water management, disseminating innovations developed by CGWB. The institute has trained experts from several foreign countries, contributing to global groundwater governance capacity.

PROGRAMME CO - ORDINATORS

RGNGWTRI

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