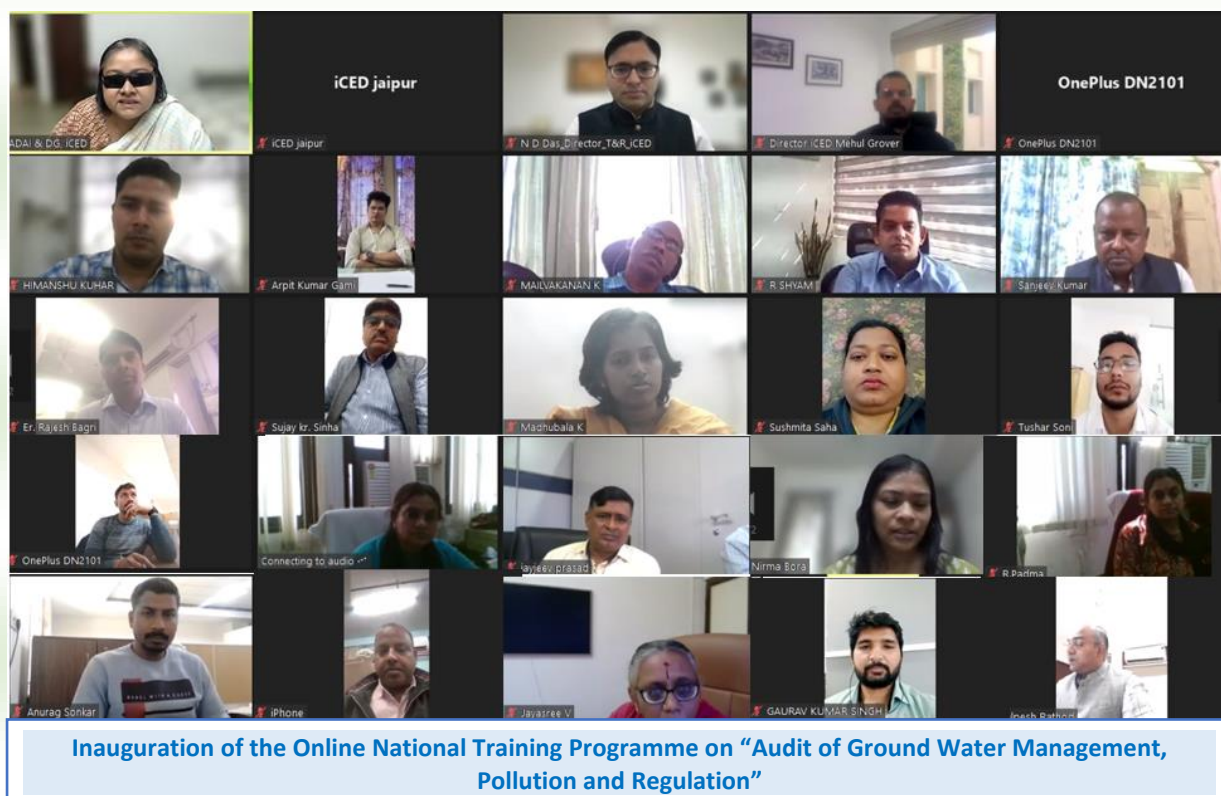


Summary of National Training Programme on “Audit of Ground Water Management, Pollution and Regulation” from 19th to 23rd February, 2024

International Centre for Environment Audit & Sustainable Development (iCED) organized a 05 days’ National Training Programme on “Audit of Ground Water Management, Pollution and Regulation” from 19th to 23rd February 2024 through virtual mode. A total of 21 participants from 07 field offices including 07 group officers, participated in the training programme.



Dr. Nanda Dulal Das, Director (Training and Research) extended a warm welcome to Additional Deputy Comptroller and Auditor General & Director General, Ms. Sayantani Jafa madam, Shri Mehul Grover, Director (Administration) and all the participants. He highlighted that the training programme would cover a wide range of topics related to Ground Water. He requested ADAI Madam to deliver her welcome address.

Ms. Sayantani Jafa, Additional Deputy Comptroller and Auditor General & Director General, iCED inaugurated the training programme. She welcomed all the participants virtually and emphasized the importance of the National Training Programme on “Audit of Ground Water Management, Pollution and Regulation”.

ADAI, iCED informed the participants about iCED's significant role with the recent establishment of the Centre of Excellence on Audit of Blue Economy. iCED is now operationalizing the SAI India's vision of upscaling knowledge and addressing critical issues related to the audit of Blue Economy and proving to be an important instrumentality of global capacity building in the field of Environmental Auditing.

ADAI, iCED emphasized the critical importance of water, particularly groundwater, as a lifeline sustaining ecosystems, communities, and economies in India. She highlighted significant challenges that are faced in sustainable management of groundwater resources. These challenges stem from competing demands in agriculture, industrialization, and population growth, compounded by uncertain rainfall patterns. Groundwater contamination from industrial discharge, agricultural runoff, and improper waste disposal poses serious health and environmental risks, exacerbated by weak regulatory enforcement.

Further, she highlighted that as per the 2021 CAG report, groundwater extraction in India increased from 58% to 63%, between 2004-17, exceeding the groundwater recharge rate., leading to overexploitation and critical depletion in many regions. Urgent attention and robust regulatory measures are necessary to address these complex issues and ensure the sustainable management of groundwater in India.

ADAI, iCED also stressed that as auditors, we have a critical role to play in supporting environmental preservation. By conducting audits that assess the effectiveness of environmental policies, programmes and projects, we can ensure that water resources are utilized efficiently and environmental risks are properly managed. At the same time, we have to strive for a balanced economic development trajectory. Thus a 'one size fits all' approach may have to be discarded in favour of nuance in examining each issue.

With this introduction, ADAI Madam again welcomed all the participants virtually, expressing hope for a productive and engaging training programme.

During these five days' training programme, 12 experts from IA&AD and many other reputed organisations like UNICEF India, New Delhi, FRI, Dehra Dun, Malviya National Institute of Technology, Jaipur, IISc, Bengaluru, Annamalai University, Tamil Nadu, National Mission for Clean Ganga, IIWM Bengaluru, TERI, New Delhi, and SAC, Ahmedabad, etc. were invited to deliver the sessions. Details of the trainers and the sessions delivered during this programme are as follows:

Sl. No.	Sessions	Trainer/s
1.	Overview of clean water and sanitation with a focus on climate change	Nirma Bora Consultant at UNICEF India, New Delhi
2.	Water Resource Management in Arid Regions	Mr. Sumantra Basu, Scientist B, FRI, Dehra Dun
3.	Water Pollution in India: Sources, Indicators, Trends and Framework for water quality monitoring and abatement of Water Pollution	Shri Akhilendra Bhushan Gupta, Professor, Dept. Of Civil Engineering, Malviya National Institute of Technology, Jaipur
4.	Groundwater Pollution and Management of River Basin with Case Studies	Dr. T. V. Ramachandra, IISc, Bengaluru
5.	Ground Water Management in Coastal Areas: Importance of Blue Carbon Ecosystems	Dr Kathiresan Kandasamy, Professor, Annamalai University, Tamil Nadu
6.	Waste Water: From Plastic to Pollution	Dr. Gulshan Sharma, Research Associate, iCED Jaipur
7.	Water Resource Management in National Mission for Clean Ganga	Dr. Pravin Kumar, Director Technical, National Mission for Clean Ganga (NMCG)
8.	Advancement in Sewage Treatment Technologies and their application in India: Perspective for Audit	Ms P Bineesha, Executive Director, IIWM Bengaluru
9.	Water in Urban Areas: Quantity and Quality Issues	Dr. Anshuman, TERI, New Delhi
10.	Remote Sensing of Ground Water: Current Capabilities and Future Directions	Dr Dharmendra Kumar, SAC, Ahmedabad
11.	Remote Sensing and GIS for Ground Water Resource Assessment	Ms Samarpita Sarkar, SAC, Ahmedabad
12.	Ground Water Management and Regulation: Audit Case Study	Shri Ajay Kumar Jha, Director (AFWR) Director General of Audit (E & SD) Delhi

Team Wise Exercise: Team Wise Exercise: - Team Wise Exercise was also given to the participants by dividing the participants in Three groups. **Dr. Nanda Dulal Das, Director (Training and Research) and Mehul Grover Director (Admin)** evaluated the presentations given by all the groups of the participants during the pre-valedictory session.

Feedback:- Feedback on course designing, the time required, content, knowledge and its delivery by the resource persons was also collected from the participants through SAI Portal. The average feedback of the participants was 9.1 out of 10, which is very encouraging. Sessions on **“Groundwater Pollution and Management of River Basin with Case Studies”** was rated as the best.

Summing-up and valediction:

Ms. Sayantani Jafa, ADAI & DG, iCED graced the valedictory session of the National Training Programme on “**Audit of Ground Water Management, Pollution and Regulation**” from 19th to 23rd February 2024 through virtual mode.

ADAI highlighted that iCED brings out a quarterly journal, named "Green Files", which highlights topical auditing issues in the sphere of Blue Economy, Climate Change and other areas of environmental audit and sustainability. ADAI, iCED invited participants to take a look into the 46th and 47th Volumes of Green Files, which might provide them with important auditing inputs in their respective areas. Further, she also invited participants to contribute articles for our upcoming 48th volume of Green Files, highlighting accounting and auditing experiences relating to Climate Change and Blue Economy.



Ms. Sayantani Jafa, Additional Deputy Comptroller and Auditor General & Director General, iCED, Dr. Nanda Dulal Das, Director (T&R) and Mr. Mehul Grover, Director (Admin.) during the Valedictory Session

Additionally, ADAI, iCED invited participants to peruse iCED’s Occasional Research Paper (ORP) Series, launched in May 2022, on various subjects relating to climate change, issues relating to urban flooding, transportation, air pollution, waste management, inter alia. So far, twelve such ORPs have been published at the website of iCED and more are in the offing.

ADAI, iCED concluded the valedictory session by quoting Hon'ble PM of India when he said that “The more you know, the more you realise the magnitude of what you do not know. Our biodiversity too is a unique treasure for the entire human kind. We have to preserve it, conserve it and explore further”. With this, she thanked all the experts and participants for their contributions in making this online event a success.