

# WATER GYAN

ICCW NEWSLETTER EDITION 3



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## From the ceo's desk

At ICCW, we continue to advance our mission of enabling clean and sustainable water through innovation, collaborative implementation and knowledge sharing. The past few months have been marked by impactful partnerships and field initiatives that bridge science with tradition to address real-world problems.

Our recent work in assessing the impact of lake restoration efforts, conducting industrial water audits, and developing digital tools for water management reflect a growing focus on measurable outcomes and scalable models for water sustainability. Initiatives such as the Akka Thangai Lake impact study, collaborative assessments with MRF Tyres Ltd., and the Digital Water Audit Tool highlight how technology, data and community participation can together drive meaningful change.

### **Mr. Nandakumar E** **Chief Executive Officer,** **International Centre for** **Clean Water**



Equally inspiring has been ICCW's engagement with national and international partners from the Indo-Taiwan Water Forum to the Circular Water Economy program with the Embassy of Israel and MoHUA creating a vibrant dialogue on sustainable water futures.

Our support for startups got a big boost at IFAT 2025, where ten of our startups put up stalls and participated in panel discussions to reach out to potential customers. We are proud of the social impact being created by our startups. More about that in our next edition.

As we move forward, ICCW remains committed to fostering innovation, strengthening collaborations, and building ecosystems that make water sustainability a shared responsibility. Every project, partnership, and dialogue brings us closer to a future where access to clean water is not a challenge, but a collective achievement.

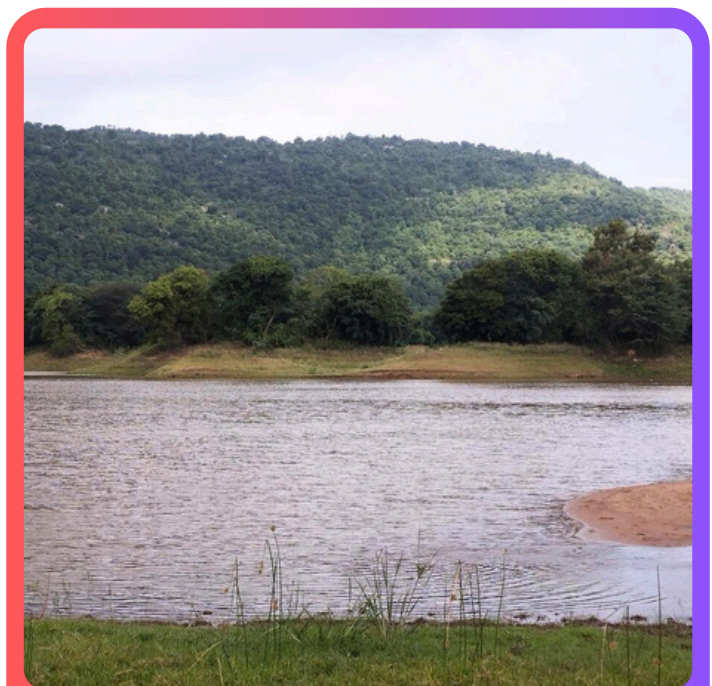
# REVIVING WATER HERITAGE

## *Baseline Insights from Anchetty's Minor Irrigation Tank*

The baseline study of Akka Thangai Lake in Anchetty Taluk, Krishnagiri District, by ICCW, IIT Madras, with support from Titan Company Limited (CSR) and National Agro Foundation, highlights siltation, catchment degradation, and loss of over 60% storage capacity.

The lake's water spread has shrunk affecting groundwater recharge and livelihoods in surrounding villages. Hydrogeological analysis shows moderate aquifer productivity with low infiltration rates, leading to the proposal of three 40-m recharge shafts for deeper percolation. Land use changes indicate declining cultivable area and rising barren land, while socio-economic findings reveal farmers' complete dependence on the lake.

With 1.1 lakh m<sup>3</sup> desilted and further interventions planned—bund strengthening, recharge structures, and catchment restoration—the rejuvenation aims to enhance groundwater recharge by 20–25%, benefiting over 400 farming households and setting a replicable model for sustainable, digitally monitored water management in rural Tamil Nadu.



# STAKEHOLDERS ENGAGEMENT

The formation of a Farmers' Association, in collaboration with the National Agro Foundation (NAF) and Titan Company Limited, represents a significant milestone in the Akka Thangai Lake Rejuvenation initiative. This newly established association is designed to empower the local farming community to take an active role in managing and maintaining the rejuvenated water body. By fostering community-led governance of water resources, the initiative seeks to ensure the long-term sustainability and ecological balance of the restored lake ecosystem. Through collective participation and shared responsibility, the association will help preserve the lake's benefits for future generations while supporting agricultural productivity and livelihood development in the region.



# DATA FOR IMPACT

## Monitoring Water Treatment Safety and Auditing Volumetric Benefits

### Installed RO Plants in Anand District, Gujarat



The Assessment of Volumetric Benefits of Installed RO Plants in Anand District, Gujarat is being carried out to evaluate the impact of community-scale water purification systems implemented across 60 villages under the CSR initiative of British Petroleum (BP), in partnership with INREM Foundation.

The International Centre for Clean Water (ICCW) is conducting this scientific assessment to measure the actual volume of safe drinking water delivered to rural households. Through field surveys, performance audits, and data-driven analysis, the project aims to quantify the tangible water benefits achieved, ensure long-term system sustainability, and provide insights that can guide future investments in decentralized safe water solutions across India.



# SMART WATER GOVERNANCE

## ICCW's Digital Water Audit Revolution

The Digital Water Audit Tool, developed by the International Centre for Clean Water (ICCW), IIT Madras, marks a major step toward smarter and more sustainable industrial water management.



This hydroinformatics-based platform uses IoT sensors, smart meters, and cloud analytics to monitor, measure, and manage every drop of water in real time. By integrating data from flow meters, leak detectors, and quality sensors, it provides a comprehensive dashboard that helps industries identify inefficiencies, reduce wastage, and optimize water use. The tool empowers both engineers and decision-makers with actionable insights, driving data-based interventions that deliver measurable returns on water efficiency investments. Designed to align with India's industrial sustainability goals, this digital solution represents the shift from manual audits to continuous, intelligent water stewardship. The tool will be available for public use shortly, enabling industries to adopt smarter, evidence-based water management practices.

# SUSTAINABLE WATER MANAGEMENT:

## *ICCW's Collaborative Studies with MRF Tyres Ltd.*

As part of its commitment to advancing sustainable water conservation, ICCW has been conducting a series of water management studies for MRF Tyres Ltd., including water audits, flood risk assessments, and hydrogeology studies across multiple manufacturing facilities.



So far, ICCW has successfully completed studies at the Trichy and Thiruvottiyur plants, while ongoing assessments are underway at Dahej, Pondicherry, Medak (APL), and Arakkonam units. These comprehensive studies are designed not only to identify gaps in water management but also to support the development of robust, long-term solutions for water sustainability.

Importantly, ICCW's role goes beyond assessment—our team continues to handhold implementation efforts through collaborations with ICCW-incubated startups, enabling on-ground adoption of innovative technologies for sustainable water conservation.

Through such industry partnerships, ICCW reinforces its mission to create resilient, water-secure systems—where responsible water stewardship becomes integral to industrial growth and sustainability.

# CAPACITY BUILDING PROGRAM

ICCW successfully conducted the Phase 2 Capacity Building Course on “Circular Water Economy & Resource Recovery”, in collaboration with the Embassy of Israel in India, MASHAV (Aid from Israel – Israel’s Agency for International Development Cooperation), and the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) of the Ministry of Housing and Urban Affairs (MoHUA). The three-day program brought together over 50 government officials from across India’s water sector to explore actionable pathways for building a circular water economy.



The program featured a dedicated exhibition showcasing innovative technologies from leading companies, including BERMAD, Atlantium Technologies, DHV MED, H2OLL, Aquestia – A.R.I., Dorot, OCV, and HECS – Hubert Enviro Care Systems. Participants gained insights into cutting-edge solutions for water treatment, resource recovery, and circular water management.

Site visits to the Nemmeli Desalination Plant and the TTRO industrial water treatment plant, hosted by CMWSSB Chennai Metro Water Board and VA TECH WABAG LTD., provided hands-on exposure to operational best practices in desalination and industrial water management.

The course covered a wide range of topics including water treatment, desalination, and wastewater reuse, as well as strategies to harness alternative water sources for agriculture, industry, and domestic use. Participants also examined approaches to transform by-products such as sludge and brine into valuable resources, emphasizing sustainability and resource efficiency.

The program featured expert sessions by distinguished speakers including Ravid Levy, Hagai Kotzer, Upendra Prasad Singh, Ayushi Kashyap, Senthilkumar Chandrasekaran, Ashok Natarajan, James Moses, Arun Kumar Sridharan, S.A. Abbasi, and Manikandan Dhandayutham, who shared insights on policy frameworks, technology adoption, and strategic implementation for a circular water economy.

The Phase 2 course reinforced ICCW's commitment to capacity building and knowledge sharing, highlighting the role of international collaboration, technological innovation, and sustainable practices in shaping India's water sector.



# Industrial Water Management 4.0

ICCW, in collaboration with the Confederation of Indian Industry (CII), hosted Industrial Water Management (IWM 4.0) at IIT Madras Research Park, a three-day workshop designed to advance sustainable industrial water practices and foster collaboration among industry professionals, startups, and practitioners. The program provided a platform to explore emerging technologies, management strategies, and operational innovations in industrial water use.

The workshop addressed key aspects of industrial water management, including water audit methodologies, digital water assessment tools, and pathways to achieving water neutrality. Participants examined practical frameworks for assessing water consumption, improving efficiency, and establishing sustainable management plans.

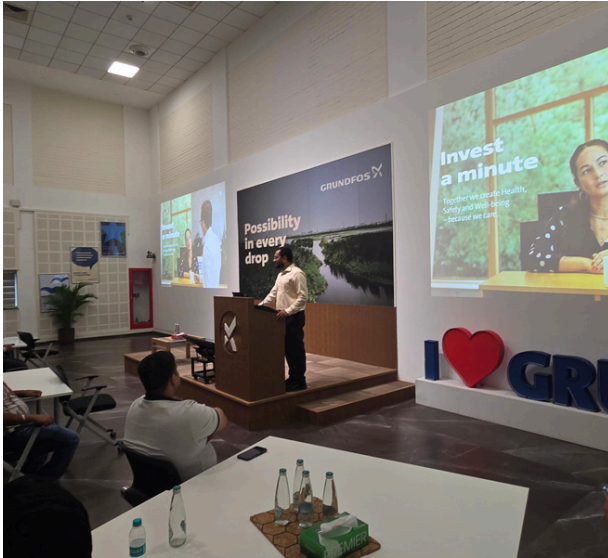
**50+** PARTICIPANTS

Fostering innovation, collaboration, and sustainable solutions for efficient industrial water use



Sessions also focused on advanced practices and technological interventions, covering zero liquid discharge (ZLD) optimization, smart water monitoring using IoT, and innovative approaches to decentralized water management. Startups presented solutions that demonstrated how digital systems and modern technologies can drive efficiency and promote circularity in industrial operations.

## EVENTS & ACTIVITIES



Participants engaged in hands-on learning, including practical exercises and field visits, enabling them to observe industrial water management practices in operation. The program concluded with discussions on emerging trends, innovations, and collaborative strategies necessary to ensure sustainable water use in industrial settings.

IWM 4.0 highlighted the role of knowledge sharing, innovation, and cross-sector collaboration, emphasizing how partnerships between organizations like ICCW and CII can drive sustainable industrial water management practices.



# Circular Approaches to Wastewater Management

ICCW served as a knowledge partner for a two-day workshop organized by the International Water Association – South Asia, powered by VA TECH WABAG LTD., in collaboration with Greentivity.in and Ecosan Services Foundation, India (ESF). The workshop brought together water experts, industry professionals, and participants to examine how circular approaches to wastewater management can transform water from a challenge into a valuable resource.



The workshop commenced with opening remarks by Mr. Rajiv Mittal, Chairman and Managing Director of VA TECH WABAG LTD., who emphasized the critical role of water reuse and resource recovery in achieving circularity. ICCW leadership, along with representatives from ESF, shared the strategic vision behind the initiative, setting the stage for two days of knowledge exchange and technical learning. The first day's sessions covered essential topics including sanitation systems for circular design, understanding wastewater characteristics, planning and feasibility assessment, and the fundamentals of wastewater treatment.

## EVENTS & ACTIVITIES



On the second day, participants visited the 4 MLD Sewage Treatment Plant at IIT Madras, which demonstrated Indirect Potable Reuse (IPR) and advanced urban water management practices. The technical program included discussions on digitalization in wastewater monitoring, sensor-based data collection, PLC and SCADA system applications, decentralized treatment solutions, and innovative financing and business models for sustainable wastewater management. Interactive sessions encouraged participants to collaboratively explore solutions and share insights.

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The workshop concluded with a focus on the potential of circular wastewater strategies to drive sustainable water management across urban and semi-urban areas. By showcasing advanced technologies, operational best practices, and innovative approaches, the event highlighted the role of knowledge sharing and international collaboration in addressing pressing water challenges.

# Indo-Taiwan Water Forum

ICCW, in collaboration with MOENV Taiwan, NYCU, WAOT, and Everclear Environment India Pvt. Ltd., hosted the Indo-Taiwan Water Forum at IIT Madras Research Park. The forum brought together experts, researchers, and industry leaders from India and Taiwan to discuss emerging technologies in wastewater treatment and resource recovery, emphasizing sustainable development and circular economy approaches.



Sessions covered a range of cutting-edge topics, including the application of MCDI in water reclamation, sludge-free oxidation technology for industrial wastewater, and smart water implementation with AIOT insights from cross-sector deployments. Other presentations highlighted fluoride wastewater treatment, decentralized wastewater solutions, and innovative electrical technologies transforming water treatment systems.

The forum provided a platform for knowledge exchange and collaboration, showcasing innovative approaches and fostering dialogue on practical solutions for water sustainability. By facilitating international engagement, the event highlighted the potential for India-Taiwan partnerships in addressing critical water challenges and advancing circular economy solutions.



# ICCW at IFAT India 2025: Learning from Global HydroHubs



At IFAT India 2025, the session titled “HydroHubs in India and Overseas – Experiences from Centres of Excellence for Water in Leading Universities, Corporates and HydroNations” brought together experts from across academia, industry, and policy to exchange ideas on advancing water innovation and management.

The discussion highlighted how collaborative models and international partnerships can accelerate the development of scalable, sustainable solutions to address global water challenges.

Representing ICCW, Mr. Nandakumar E, Chief Executive Officer, shared insights on ICCW’s initiatives that foster innovation, research collaboration, and technology translation to ensure access to clean and sustainable water. The session served as a valuable platform for knowledge exchange, reaffirming the role of collaboration and innovation in shaping a resilient water future.



# Observing World Rivers Day



On World Rivers Day, ICCW organized an internal quiz to highlight the importance of rivers in our environment and daily lives. The activity engaged participants in learning about river ecosystems, water management, and the role of rivers in supporting communities.

The quiz provided an opportunity to reinforce awareness and knowledge among staff, emphasizing that understanding and responsible management of rivers are key steps toward their protection and sustainability.



# SYDNEY 905

Access to safe drinking water is essential for every household, yet many communities continue to face challenges in ensuring its quality. The Sydney905 water filtration system, developed by NewCo Pro and validated by the International Centre for Clean Water (ICCW) along with several international certifications, offers a practical, sustainable solution for reliable drinking water.

Sydney905 operates on advanced hollow-fibre membrane technology that effectively removes bacteria, protozoa, and other harmful impurities—without the use of electricity or chemicals. With fine membrane pores ranging from 0.1 to 0.01 microns, the system ensures that water meets global drinking water standards while retaining essential minerals beneficial to health. Designed for ease of use and long life, Sydney905 eliminates the need for frequent filter cartridge replacements. Its compact and robust design allows quick installation at household taps or community water points.

The system performs efficiently under both gravity-fed and pressurized water supply conditions, making it suitable for diverse environments—from city homes to rural villages.

Beyond performance, Sydney905 emphasizes sustainability and affordability. It minimizes maintenance, consumes no power, and reduces plastic waste by lowering dependence on bottled water. Validated by ICCW and globally recognized testing agencies, Sydney905 stands as a dependable step toward safe, self-reliant, and sustainable water access for all.



**Smart Water Filtration for Every Home !**

[Learn more: safewater4u.com](https://safewater4u.com)

## ICCW PICKS : BOOKS THAT FLOW WITH INSIGHT

### *Where Good Ideas Come From: The Natural History of Innovation By Steven Johnson*



Innovation rarely happens in isolation — it thrives in environments that encourage connection, curiosity, and collaboration. In *Where Good Ideas Come From*, Steven Johnson explores the patterns and conditions that have sparked great discoveries throughout history.

From the invention of the internet to the evolution of cities and ecosystems, Johnson shows how ideas develop through networks, shared spaces, and the exchange of diverse perspectives. The book is a fascinating read for anyone interested in creativity, research, and how innovation can be nurtured within communities like ours at ICCW.

A timely reminder that breakthroughs often emerge when we share, connect, and build together.

**Recommended for:** Innovators, researchers, and anyone curious about how ideas evolve and shape our world.

# Visitors



L&T TEAM  
**DATE :21.07.2025**



Fr. THOMAS NINAN –  
EXECUTIVE SECRETARY –  
PROJECTS – CHRISTIAN  
SERVICE AGENCY  
**DATE : 11.08.2025**



MR SAYAN MONDAL ( ASCI )  
HYDERABAD  
**DATE : 12.08.2025**



DR RAVID LEVI – ISRAEL'S  
REGULATORY LANDSCAPE  
FOR WATER CIRCULARITY  
**DATE : 20.08.2025**



MR GANESH KRISHNAMURTHY  
– FOUNDER – PG SQUARE  
UNLIMITED  
**DATE : 28.08.2025**



Prof KANNAN IIT MUMBAI  
**DATE :17.09.2025**



Prof. Christopher J  
Ackerson, Prof. Christine  
Marie Aikens, Prof. De-  
en Jiang, Prof. Gangli  
Wang, Prof. Kenneth L.  
Knappenberger  
**DATE : 08.07.2025**



MR MORTEN JUST KJOLBY(  
Product Portfolio Manager),  
DENNIS JURSIĆ WANNINGER  
(Vice President), JAMES  
EBENEZER SAMUEL (Manager)  
– DHI (India) Water &  
Environment Private Limited  
**DATE : 13.10.2025**



Dr. CHANDHANA FROM AITS  
**DATE :30.09.2025**



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