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THE SOCIAL IMPACT CLUB

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Chennai Edition

An IIT Madras Initiative

Topic

Sustainable Water and Sanitation Mission: A CSR Industry-Academia Partnership Model

2nd March 2026 | 05:30 PM - 07:00 PM

Hall - 2, IC&SR Building, IIT Madras

2nd March 2026 Chennai Edition 2 - Report

THE SOCIAL IMPACT CLUB

The Social Impact Club is an IIT Madras initiative aimed at creating a forum for CSR professionals where key focus areas and challenges faced by the CSR community are discussed, shared, and collaboratively addressed. This platform brings together corporate leaders, academic experts, and implementation partners to develop scalable solutions for India's most pressing social and environmental challenges.

Social Impact Club - Chennai 2nd Edition

Sustainable Water and Sanitation Mission:
A CSR Industry-Academia Partnership Model

The second Chennai edition of The Social Impact Club successfully convened CSR professionals from leading corporations with the IIT Madras AQUAMAP team to address sustainable water and sanitation challenges. The forum facilitated strategic discussions on scaling technology-driven water solutions through industry-academia partnerships, resulting in actionable commitments from participating organizations to explore pilot projects and collaborative research initiatives.

OBJECTIVES

- Discover scalable CSR models for sustainable water and sanitation through industry–academia collaboration.
- Learn how innovation and research can drive measurable, long-term WASH impact.
- Align CSR efforts with national priorities and SDG 6.
- Explore partnership opportunities with AQUAMAP for high-impact community implementation.

AquaMAP

AquaMAP at IIT Madras is a center of excellence focused on developing technology-enabled, context-specific solutions for water and wastewater management, especially in rural and underserved communities. It pilots scalable models such as nature-based wastewater treatment systems and smart water management tools, which are now being adopted by state governments in around 1,000 villages in Karnataka. AquaMAP also develops data-driven decision-support tools for agriculture using weather and soil moisture data, helping farmers reduce water use by 20–30% while maintaining productivity. Through CSR-funded pilots, sponsored research, and technical partnerships, it provides a ready platform for industry–academia collaboration to advance Sustainable Development Goal 6 on clean water and sanitation

OVERVIEW OF AQUAMAP INITIATIVES

During the session, faculty members from IIT Madras presented AquaMAP's multidisciplinary work in addressing water challenges through research, technology development, and policy engagement.

Key focus areas presented included:

- **Groundwater Mapping and Recharge:** Scientific assessment of aquifers and identification of suitable recharge strategies.
- **Water Body Restoration**: Restoration and rejuvenation of lakes and tanks to enhance storage capacity and ecological health.
- **Wastewater Treatment and Resource Recovery:** Development of cost-effective technologies for industrial and municipal wastewater treatment and reuse.
- **Urban Hydrology and Flood Management:** Modelling and forecasting systems to support urban flood mitigation and stormwater management.
- **Digital Water Monitoring:** Deployment of sensors, dashboards, and IoT systems to monitor water usage, quality, and recycling in real time.
- **Groundwater Remediation:** Technologies for treating contaminated aquifers near industrial and landfill sites.

The presentations emphasized that effective water management requires **context-specific solutions** rather than one-size-fits-all technologies, and that scientific assessment is essential before implementing interventions.

MODERATOR

Prof. Ligy Phillip: Faculty member at IIT Madras

Prof. Ligy Philip is an Institute Chair Professor in the Department of Civil Engineering at Indian Institute of Technology Madras, specializing in Environmental Engineering and sustainable water management. A Fellow of the National Academy of Engineering (India) and the Royal Society of Chemistry, her research focuses on water and wastewater treatment, industrial effluent management, and remediation of contaminated soil and groundwater.

KEY DISCUSSION POINTS

The interaction enabled participants to share challenges faced in their sustainability initiatives and identify areas where scientific collaboration could support improved outcomes. The following key points emerged during the discussions:

- Wastewater Recycling and Industrial Water Use

Several organizations highlighted the need for scalable and cost-effective treatment solutions, particularly for high-TDS wastewater generated from industrial cooling systems and other processes.

- Groundwater Recharge and Aquifer Sustainability

Corporate representatives expressed interest in scientifically designed groundwater recharge systems that ensure aquifer replenishment while avoiding contamination risks.

- Water Monitoring and Data Systems

Participants emphasized the importance of measurement and transparency in water management. Many organizations expressed interest in dashboards and digital tools that can track water consumption, recycling, and recharge impact.

- Water Body Restoration and Flood Mitigation

Water body rejuvenation and lake restoration were identified as important interventions for improving urban water security while also contributing to flood mitigation and groundwater recharge.

- Community Water Projects through CSR

CSR teams highlighted the need for scientific baselines, monitoring frameworks, and impact measurement tools to ensure that community water projects deliver long-term benefits.

- Innovation and Student Engagement

Faculty members also presented initiatives that support student-led innovations and startups in water technologies, including programs that fund prototypes and facilitate industry pilots.

RECOMMENDATIONS AND ACTION POINTS

Based on the discussions, participants and the IIT Madras team identified the following recommendations:

1. Adopt Context-Specific Solutions: Implement water treatment solutions based on local water quality testing instead of uniform technologies like RO to reduce wastage, costs, and maintenance challenges.

2. Promote Nature-Based Systems: Scale nature-based wastewater management systems such as constructed wetlands and anaerobic reactors as sustainable, low-cost alternatives for rural areas.

3. Integrate Smart Technologies: Leverage technology for smart water management by integrating IoT-based monitoring and automation to improve water quality tracking and ensure efficient distribution.

4. Strengthen Industry-Academia Collaboration: Develop CSR-funded pilot projects, sponsored research initiatives, and technical partnerships to scale innovative water solutions across communities.

PARTICIPANTS SPEAK

"*Having seen the potential of this initiative, I would be happy to connect the program with 10–15 companies that use water-based cooling systems, so they can explore adopting and supporting these solutions.*" – **Shankar Iyer, Johnson Controls**

"While Corporate Environmental Responsibility ensures compliance, the real opportunity lies in taking these efforts beyond regulation to create larger environmental impact. The ideas shared today offer a pathway to elevate what industries are already doing into more meaningful, scalable initiatives."- **Jibby Mathew, Ford Motors**

"The presentation highlighted a more organized approach to CSR, and it gave me several ideas on how we can channel our efforts more effectively. I will discuss this with my team and look forward to connecting further so we can take it forward in a structured way that benefits both communities and the impact of our CSR investments."- **Mouli Durai, L&T**

PARTNERSHIP OPPORTUNITIES

Corporates were invited to partner with AQUAMAP through multiple engagement models:

- CSR-funded demonstration projects in rural and underserved communities
- Sponsored research on water quality, treatment technologies, and sustainable sanitation
- Capacity-building programs for community stakeholders and implementing partners
- Technical advisory engagements leveraging corporate expertise

CONCLUSION

The Chennai Edition 2 of The Social Impact Club catalyzed a sharp, solutions-driven dialogue on innovation and the evolving role of CSR in tackling India's water sustainability crisis. Building on this momentum, IIT Madras is committed to converting ideas into action through pilot projects, deeper industry-academia partnerships, and the deployment of technology-enabled, context-specific water and wastewater solutions.

With the backing of visionary corporate partners, these efforts aim to create scalable, sustainable models that meaningfully improve water access and management in rural and underserved communities. The engagement and enthusiasm demonstrated by participating organizations signal strong potential for transformative partnerships that align corporate responsibility with national development priorities and SDG 6 targets.

Next Steps

- Follow-up meetings with interested corporate partners to develop specific pilot project proposals
- Site visits to existing AQUAMAP implementation sites for corporate stakeholders
- Development of customized partnership frameworks based on corporate CSR priorities
- Convening of the next Social Impact Club edition to continue collaborative problem-solving on critical social challenges

Interested in joining future editions of The Social Impact Club?
Write to us at csrpartner@ia.iitm.ac.in to stay connected.