

CENTRE FOR WATER RESEARCH

ANNUAL REPORT 2025-26

Indian Institute of Science Education and Research Pune



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Front Cover: Origin of the Bhima River

Back Cover: Acres of Ice, Igloo, Ladakh.

Table of Contents

05	FOREWORD
06	ADVISORY GROUP
07	PEOPLE
08	RESEARCH AND TRAINING
09	RESEARCH PROJECTS
10	PUBLICATIONS
11	OUTREACH
15	LIVING WATERS MUSEUM

Foreword

The Centre for Water Research at IISER Pune enters yet another year of expanding research, outreach, and community engagement, even as the world around us grows increasingly conscious of the fragility of its water systems. Across India and globally, the twin pressures of climate change and governance failure are making water security an urgent priority. In this context, the work of CWR feels more necessary than ever.

This year saw the conclusion of the AQUAMUSE project, a two-year collaboration with partners across three river basins and multiple continents, supported by the Water and Development Partnership Programme at IHE Delft. The project generated rich multimedia archives, vibrant public dialogues, and the Retrospective event in March 2026, which brought together women from the arts, academia, and practice to reflect on water, gender, and justice. The Living Waters Museum continued its remarkable momentum, launching the Deccan Waters digital chapter, a long-overdue pivot toward the semi-arid heartland, and co-organising two sessions of the River Festival in Kolkata. The Sea Horse, a sculpture born from discarded waste and artistic vision, found its permanent home at Rabindra Sarovar, a fitting symbol of the kind of public engagement CWR aspires to support.

Our Water Audit of the IISER Pune campus is well underway, reminding us that the habits we advocate for externally must also be practiced at home. The Historical and Cultural Survey of the Mula-Mutha River, the D-ICE project on debris-glacier interactions, and the several PhD and MS theses supervised this year reflect the breadth of disciplinary inquiry that defines CWR: from glaciology to political ecology, from chemistry to the humanities. Faculty members have been active contributors to national and international conversations, presenting at conferences from Paris to Tokyo to Lucknow.

Looking ahead, we remain committed to deepening our engagement with water as a subject that is simultaneously scientific, cultural, political, and deeply human. The Indus Waters Treaty, the groundwater crisis, the unequal burden of floods and droughts, these are not abstract concerns but lived realities for millions. CWR exists to ensure that rigorous research, creative practice, and community voice all find a seat at the table where water futures are decided.

Pushkar Sohoni
Chair, Centre for Water Research
IISER Pune
May 2026

Advisory Group

Dr. Himanshu Kulkarni, Executive Director, Advanced Centre for Water Resources Development and Management (ACWADAM), Pune, India.

Dr. Jagdish Krishnaswamy, Dean, School of Environment and Sustainability, Indian Institute for Human Settlements (IIHS), Bengaluru, India.

Prof. James Wescoat, Aga Khan Professor Emeritus of Landscape Architecture and Geography, Massachusetts Institute of Technology (MIT), USA.

Mr. K.J.Joy, Senior Fellow, Society for Promoting Participative Ecosystem Management (SOPPECOM), Pune, India.

Prof. Margreet Zwarteveen, Professor of Water Governance, UN-IHE Delft Institute for Water Education, The Netherlands.

Ms. Shailaja Deshpande, Founder-Director, Jeevitnadi, Living Rivers Foundation, Pune, India.



Water as Commons Dialogue, 2025

People

Pushkar Sohoni (Chair, CWR)
Humanities and Social Sciences

Amrita Hazra
Chemistry

Devapriya Chattopadhyay
(Science Activity Centre)
Earth and Climate Science

Argha Banerjee
Earth and Climate Science

Bejoy Thomas
Humanities and Social Sciences

Deepak Barua
Biology

Gyana Ranjan Tripathy
Earth and Climate Science

Joy Merwin Monteiro
Earth and Climate Science

Sara Ahmed
Humanities and Social Sciences

Shalini Sharma
Humanities and Social Sciences

Sujit Ghosh
Chemistry

Pinaki Talukdar
Chemistry

Pallavi Kulkarni
Centre for Water Research



Research and Training

Details of PhD Theses supervised during 2025-26 by CWR faculty at IISER Pune

NO.	STUDENT	SUPERVISOR	PROJECT TITLE
1	Kalyani Thatte	Bejoy Thomas	Inequity in groundwater access: A study of farm households in Marathwada region, India
2	Anisha Ojha	Shalini Sharma	Research on Groundwater Contamination in Uttar Pradesh
3	Ritwika Chatterjee	Shalini Sharma	Research on the Andaman & Nicobar Islands and the Sundarban islands

MS Theses supervised

NO.	STUDENT	SUPERVISOR	PROJECT TITLE
1	Sukshith P H	Bejoy Thomas	Global Food Production, Water Stress, and Hydrological Risks: Insights From Footprint Analysis
2	Yatish Juneja	Bejoy Thomas	Adapting to Floods in Pune: A Socio-Institutional Analysis
3	Anshul Saharan	Shalini Sharma	Project on School teachers' perception on climate change (water pollution and heat)
4	Bhavana Priyadarsni Das	Shalini Sharma	Comparative analysis of water discourses in Pune and Chhatrapati Sambhaji Nagar, through the lens of urban political ecology

Semester Projects Supervised

NO.	STUDENT	SUPERVISOR	PROJECT TITLE
1	Rajat Gupta	Bejoy Thomas	Water Management and Micro-Irrigation

Research Projects

Completed

Shalini Sharma and Sara Ahmed

Aquamuse: Facilitating just and sustainable water futures through water museums, digital media, and the arts (2024-26)

Ongoing

Argha Banerjee

Understanding and modelling the interactions between Debris and glaciers Ice in a Changing Climate (D-ICE):

https://www.indiascienceandtechnology.gov.in/hi/node/175050?field_area_id=

Pushkar Sohoni, Radhika Mulay

Documentation and mapping of the historic hydrosapes of Pune city under the Pune Municipal Corporation in collaboration with the Centre for Sustainability, Environment, and Climate Change at FLAME University and ACWADAM, Pune.

Radhika Mulay, Bejoy Thomas, Argha Banerjee, Pallavi Kulkarni

Water Audit of IISER Pune Campus

Shalini Sharma

The Bhopal Living/digital museum project including original oral history interviews on groundwater contamination.

Communicating Action and Resilience for Environmental Health (CARE) – www.careproject.net

Madhav Gadgil, A People's Scientist: A Transmedia Approach to Environmental Science, Advocacy and Policy Impact.



Water Journalism exhibition, 2025

Publications

The names of authors with CWR affiliation are in all caps.

PEER-REVIEWED

1. BANERJEE, A., & Scherler, D. (2025). "Steady-state surface-elevation distribution of idealized glaciers and rivers". *Geophysical Research Letters*, 52(11), e2024GL113948.
2. Kashani, S. D. R., Aneaus, S., Rashid, I., BANERJEE, A., & Majeed, U. (2026). "Glacial lake outburst flood susceptibility and potential downstream implications across the Kashmir Himalaya". *Journal of Glaciology*, Vol. 1, No. 53.
3. Dina Najjar, Naomi Shadrack, and AHMED, S. (2025). "Transforming land and water rights, improving rural livelihoods, and carving just responses to the climate crisis." *Gender and Development*, Vol. 1, No. 33.

Book chapter

1. AHMED, S. (2026). "Lives entwined: journeys through waterscapes in India," in Katya Garcia-Anton and Margarida Medes (eds.), *Word for world is water: word building and creative resistance through liquid alliances*, Spector Books.

Popular

1. AHMED, S. (2025) "Archiving the past, inspiring the present, and insuring the future: the living waters museum" for Museum Mosaic 2025 by Culture Publications, New Delhi
2. KULKARNI, P. (2026). 'Sarvansathi paani.. mahilanche kay?', *Loksatta*, March 26.
3. THOMAS, B. and fairSTREAM project team (2025). Illustrated booklet 'Sustainable and equitable futures: alternative development pathways for the Upper Bhima basin', based on research on the food-water-biodiversity nexus in the Upper Bhima basin during 2022-24 (popular)
4. THOMAS, B., R. Kanade & K. Lohakare, (2025). 'A 'nexus' approach towards sustainability', *The Hindu BusinessLine*, September 23.
5. THOMAS, B. and Ray, D., (2025). 'Jal Jeevan Mission: Hits and misses', *The Hindu Business Line*, March 20.

Outreach

CWR Season 6: Water talks

The Centre for Water Research organises Water Talks on different dimensions of water. The recording of the talk is available on the aCWR YouTube channel.

1. Drought beyond Agro-climatological Extremes. Speaker: Dr. Sneha Kulkarni. (February 12, 2026).

CWR and AQUAMUSE: Water Vidcasts

1. Goa Water Stories. Speaker: Wency Mendes. (an initiative of Living Waters Museum) (March 2025).
2. Water in Focus: Documenting Mumbai's Indigenous Resilience. Speaker: Syed Aslam. (June 2025).
3. Narmada Oral History Project. Speaker: Nandini Oza. (September 2025).
4. Andaman & Nicobar multimedia curation and archive. Speaker: Pankaj Sekhsaria. (January 2026).



Water Vidcasts: Pankaj Sekhsaria, 2026



Water Talk: Sneha Kulkarni, 2026



Water Vidcasts: Aslam Syed, 2025

Outreach

Invited Talks

Argha Banerjee

1. "A competition between Glacial erosion and rock uplift in the high mountains". The IQC-2026, IITM Pune. (January 21-23, 20226).
2. "Glaciers in the Earth system". Indian Institute for Human Settlements, Bangalore. (February 16, 2026).
3. "Himalayan Glaciers in the Earth System". Intromet Conference, IITM Pune. (November 19, 2025).

Bejoy Thomas

1. "Water in rapidly changing river basins". Convening of Alliance For Conserving Freshwater Ecosystems, Indian Institute of Science Education and Research, Kolkata, India. (October 9-10, 2025).
2. "Linking knowledge and practice for effective water management". National conference on 'River Rejuvenation and Indian Knowledge System', Babasaheb Bhimrao Ambedkar University, Lucknow, India. (November 12-13, 2025).
3. "Wastewater, livelihoods, and health: exploring the linkages". Workshop on Global Health, Franco-Indian Campus in Life Sciences for Health, Paris, France. (December 8-9, 2025).

Pallavi Kulkarni

1. 'Closing basin, rising population – case study of the Godavari Basin'. Research paper presented at the National Conference on Geospatial Technologies and Sustainable Landscapes: Navigating Urban-Rural transformations and Resources Challenges. (February 4th – 6th 2026).

Sara Ahmed

1. "Making Water Memories across the Arts, Sciences and Museums". Panellist and Moderator in the IHE-Delft Symposium under the Aquamuse project. (June 3, 2025).
2. Panellist at the side event hosted by the Global Network of Water Museums at the 50th anniversary of the Intergovernmental Hydrological Programme, UNESCO, Paris. (June 12, 2025).
3. "Decolonising water museums: democratizing knowledge through digital media and the Arts.". 2nd International Socio-hydrology Conference, University of Tokyo. (July 19-21, 2025).
4. Chair, Session on "Promoting education through the water cloud – an open access digital repository for museums and schools". 6th Conference of the Global Network of Water Museums, Brasilia. (November 4-8, 2025).

Outreach

Conferences Organised

Grassland Reimagined

Centre for Water Research, along with Anthra, French National Research Institute for Sustainable Development (IRD) - Indian Pastoral Network, Centre for Pastoralism, and Living Lightly, organised a 4-day interdisciplinary research conference, Grassland Reimagined, as a part of the Living Lightly Exhibition 2026. (March 11th - 14th, 2026).



Participants of the Grassland Reimagined Conference, 2026

IISER Pune Glacier Retreat 2

Dr. Argha Banerjee from the Earth and Climate Science Department, IISER Pune, organised a mini-conference with 20+ exciting talks by glaciologists all across the country and two colleagues from Switzerland, covering various aspects of the Himalayan Cryosphere and beyond. (November 15, 2025).

Leh Indian Glaciology Summer School (LIGSS)

LIGSS is a pioneering initiative designed to train the next generation of glaciologists in South Asia, with a limited number of seats open for participants from other regions of the world. Dr. Argha Banerjee from the Earth and Climate Science Department, IISER Pune, coordinated this summer school. (June 17-29, 2025).

Link: <https://indianglaciologyschool.com/Default.aspx> 2



IISER Pune Glacier Retreat 2, 2025



LIGSS, 2025

Outreach

Community Engagement

Bhavtal Foundation

Understanding Climate Change. Bhavtal Foundation, in association with the Centre for Water Research, IISER – Pune, organised a 3-day workshop on Understanding Climate Change. (March 13 – 15, 2026).



Participants of Understanding Climate Change, 2026



Understanding Climate Change: Interactive Activity, 2026

Sara Ahmed

1. Continues to serve as a board member for Wetlands International South Asia, New Delhi, and Development Support Centre Foundation, Utthan and Samerth, Ahmedabad.
2. Vice President, Global Network of Water Museums (till December 2025)



Ambassadors of the River, 2025



AQUAMUSE TEAM and community members - Sundarbans, 2025

Living Waters Museum

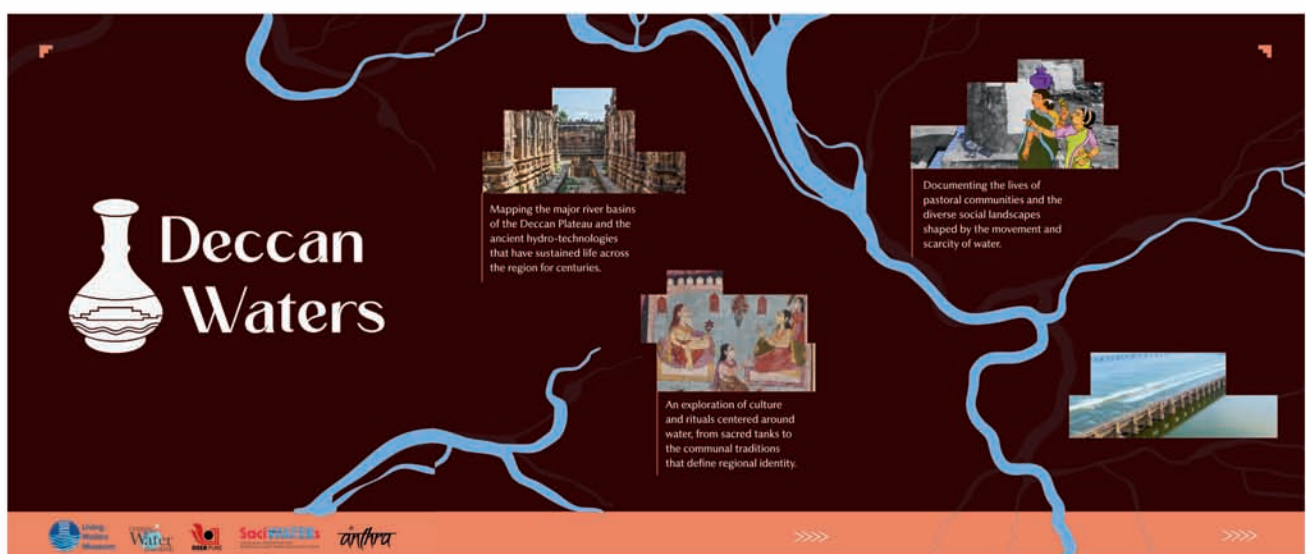
Deccan Water Chapter

In October 2025, the Living Waters Museum launched its latest digital chapters on the Deccan Waters. While water discourse in India often centres on major river basins or urban hydro infrastructure, this project pivots toward the Deccan Plateau, a semi-arid region in the heartland where life has been defined by its relationship with a challenging landscape.

The proposed digital exhibition will move beyond purely hydrological research to explore how waterscapes, livelihoods, and socio-cultural practices intersect. By focusing on the living heritage of the plateau, the exhibition seeks to bridge the gap between historical ingenuity and contemporary crises. Our lead curator, Uttara Valluri, has been working with 14 young researchers over the past few months to document the rich tapestries that define this region.

The research spans a wide spectrum of inquiry; audiences will encounter narratives ranging from the engineering of ancient hydro-technologies such as the sacred stepwells and qanats to the pressing issues of water justice within pastoralist communities. All the stories within the Deccan Waters exhibit will be multidisciplinary and audio-visual, blending archival data with oral histories and fieldwork.

Organized in mentorship collaboration with SaciWaters and Anthra, as well as the knowledge support of the Deccan Heritage Foundation, Paani.earth, and ATREE, this multimedia repository seeks to honour indigenous knowledge and provide a platform for voices often sidelined in mainstream environmental policy.



Living Waters Museum

Aquamuse: Facilitating just and sustainable water futures through water museums, digital media, and the arts

Supported by the Water and Development Partnership Programme at the Institute of Hydrology Education (IHE), Delft, this project brought together seven different partners across three river basins over the past two years. Partners from Ethiopia, Sudan, and Egypt have curated multi-media stories on communities, livelihoods, and cultural practices along the Blue Nile towards a digital gallery to be launched soon in English, Arabic, and Amharic. Dr. Chhavi Mathur, a scientist passionate about micro-museums, has worked on interactive, multi-disciplinary modules drawing on our Water Classrooms project (waterclassrooms.in) with the Musee de l'Eau located close to the Nakambe or Volta River in Burkina Faso. And in India, Jenia Mukherjee, Associate Professor at IIT-Kharagpur, and Sukrit Sen, Coordinator for our Kolkata Chapter and Arts and Outreach, have curated a multi-media exhibition on water memories and climate resilience in the Sundarbans, including soundscapes from the region.

At IISER-Pune, Dr. Shalini Sharma organised the Water Journalists roundtable in November 2024 and supported the Water as Commons dialogue in March 2025. This engagement formed part of an ongoing series of dialogues on commons, governance, and social accountability. Around 40 researchers and activists attended this national dialogue co-organized by IISER Pune with the Foundation for Ecological Security, National Law School of India University, Bangalore, the Social Accountability Forum for Action and Research, Manthan Adhyayan Kendra, Forum for Policy Dialogue on Water Conflicts in India, National Centre for Advocacy Studies-Pune, and National Campaign on Dalit Human Rights. Four public events under the title Aquamuse Dialogues were organized as part of a series of events featuring conversations between artists and scientists on the use of arts and applied storytelling for water education and advocacy. These included: Goa Water Stories, Water in Focus, Narmada Oral History Project, and Andaman & Nicobar multimedia curation and archive.



Water Journalists Roundtable, 2025

Living Waters Museum

A closing event, Aquamuse Retrospective, was held at IISER (March 28, 2026) to celebrate the latest UN World Water Development Report, which has a strong focus on gender equity in the context of access to safe water and sanitation services for all. A diverse panel of women from the arts, academia, and practice shared their thoughts on what water meant for them in the context of their work, followed by a walk through an exhibition with panels and interactive media developed by doctoral students at IISER and the Bhopal Museum collective. To close the evening, an amazing musical concert, 'Tidal Tales', was performed by Sukrit and the Pune-based sound artist, Swarnabha, drawing on music and songs from the Sundarbans with a contemporary twist.



Exhibits at the Aquamuse Restrospective Exhibition, 2026



Additional partners in the Aquamuse project included Prof Emanuele Fantini from IHE-Delft, who hosted a symposium on water museums and the arts in June 2025, with an evening of eclectic music led by Sukrit Sen and IHE students Robert Lewis and Amir Soliman, and a beautiful photographic exhibition by Roger Anis drawing on his work with women and men on the island of Qursaya near Cairo. Roger was supported by another Aquamuse partner, SciComm X, which specialises in science communication and environmental journalism. As part of this project, they organised a series of webinars and podcasts with eminent practitioners, educators, policy advocates, and academics passionate about water in all its dimensions.



Panel Discussion during the Aquamuse Retrospective, 2026

Living Waters Museum

River Festival, Kolkata

The Living Waters Museum, in collaboration with KultX, co-organised two dynamic sessions of the 7th River Festival in Kolkata, each celebrating the city's enduring relationship with its rivers. The first session, held on January 7, 2026, at the iconic Princep Ghat, turned the riverside into a lively cultural arena. As part of the annual event, the ghat hosted several local artists, painters, and performers who entertained the crowds with music, visual art, and interactive displays.



Craftsmen and boatmen joined in to share their lived experiences of the river, while a spirited boat race organised by the Sea Farers Institute added excitement and drew enthusiastic participation from the community. Together, these elements created a festive atmosphere that celebrated the River Hooghly as both a cultural lifeline and a shared responsibility.

The second session, on February 27, 2026, at the historic monument to indentured labour, was organised in association with the Shyama Prasad Mukherjee Port. This evening featured 'Kolkata ki Jal Katha', conceptualised by Sukrit Sen with the East India Dastangois, narrating the city's water history through Dastangoi, the ancient Persian-origin art of storytelling. The programme was enriched by performances from acclaimed artists: Guru Sharmila Biswas presenting Odissi dance and Arman Khan offering evocative vocals and weaving narrative, music, and memory into a multi-sensory experience. Together, they honoured Kolkata's layered water heritage and the resilience of its communities.



Aquamuse Team at IHE Delft, 2025

Our Sea Horse finds a Home

On this World Water Day, we celebrated the remarkable journey of Tide Tales ~ Phoenix of the Ocean, i.e., our Sea Horse, crafted from discarded waste materials by Vyom Mehta, an Ahmedabad-based sculptor, along with Sukrit Sen, LWM's art and outreach coordinator, to raise awareness about ocean pollution.

From its debut at the Kala Ghoda Arts Festival 2025 to being housed at the Children's Museum at the Chhatrapati Shivaji Maharaj Vastu Sangrahalaya in Mumbai, the Sea Horse travelled across cities as a symbol of resilience and renewal. In Kolkata, it was lovingly refurbished by students from BSS High School and Harapur Junior High School, with support from the Inner Wheel Club of Central Calcutta.

In collaboration with the Kolkata Municipal Corporation and Calcutta Metropolitan Development Authority, The Sea Horse finally found its permanent home at Rabindra Sarovar, where it stands as a reminder of the power of art to inspire change. Together, we continue to strengthen the movement for water and ocean conservation by the people, for the people of Calcutta.



Sea Horse at Rabindra Sarovar, Kolkata, 2026

Contact Us...

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LWM welcomes expressions of interest, please contact:

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