

# Facilitating Water Classrooms: Inclusive, Interactive, Inspiring

## Living Waters Museum, India

*Chhavi Mathur and Sara Ahmed*  
Indian Institute of Science Education and  
Research, Pune





# Building ethical values for water security

“Water only can be saved,  
For it can not be made  
Dadaji (Grandpa) saw it in the river  
Father saw it in the well  
We’ve only seen it in taps  
But what about our children?  
Where will they see it?  
No one knows  
No one knows  
No one knows...”

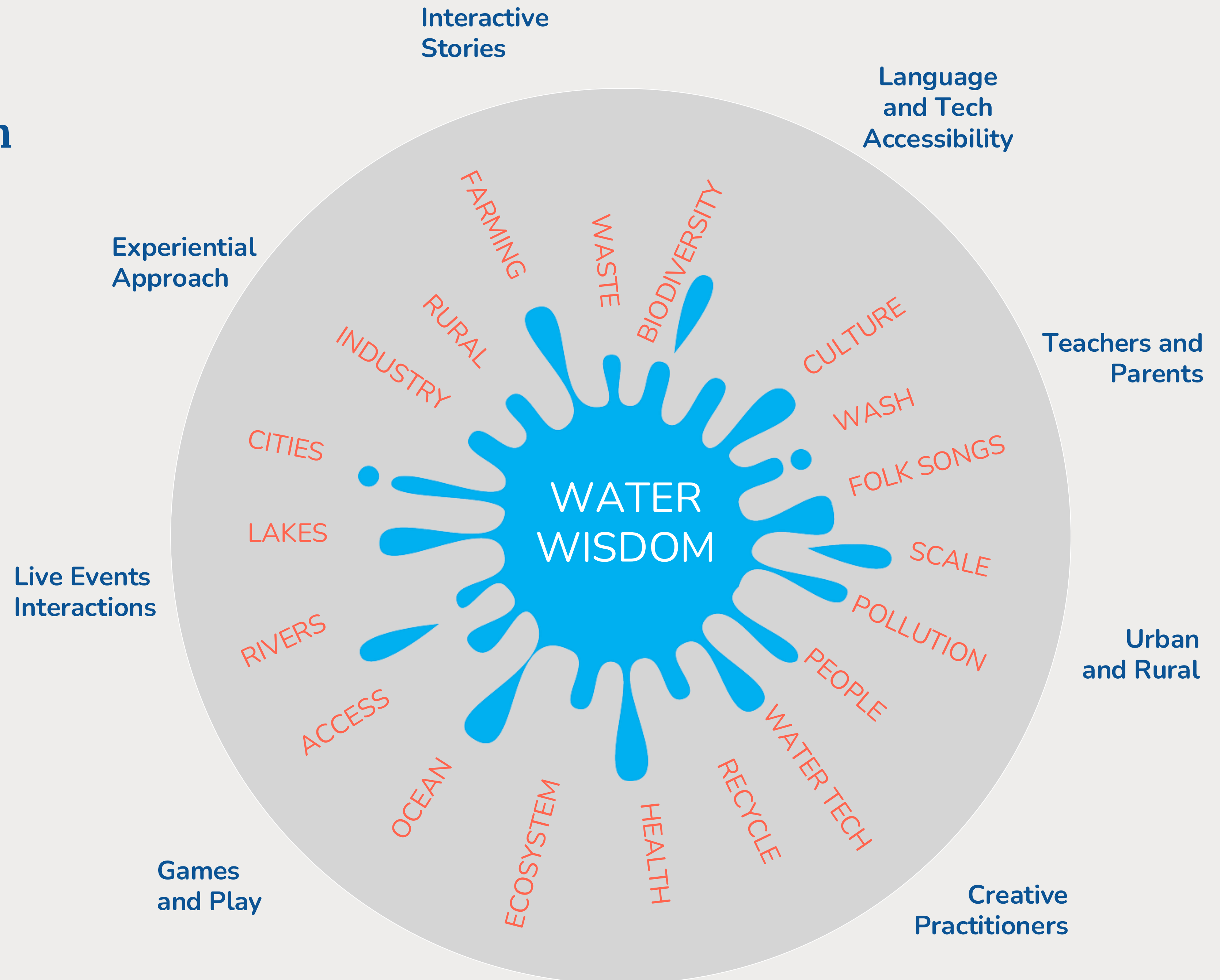


Source: Sakshi, Tina, Niharika, Ghatgara village, Madhya Pradesh, India

[www.wateraidindia.in/donate/heroes-of-change](http://www.wateraidindia.in/donate/heroes-of-change)

# Holistic Water Education

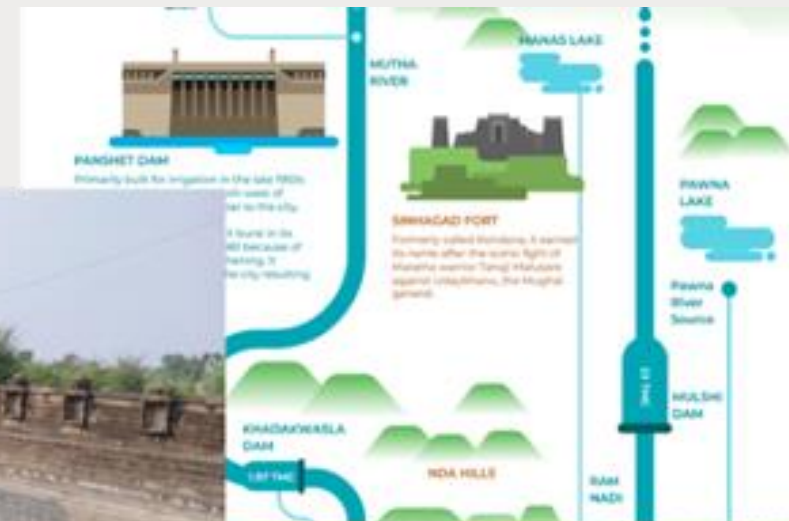
- Re-imagining Multi-faceted, Inclusive Water Education
- Using Design, New Media, Technology and Storytelling
- Physical and Digital Approaches
- Informal / Formal Schools
- Building Collective Social Responsibility for Water







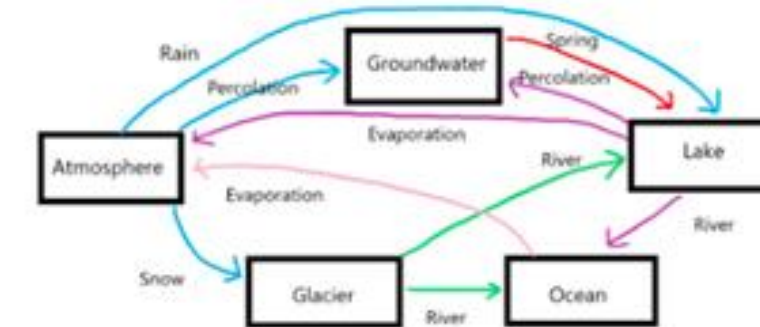
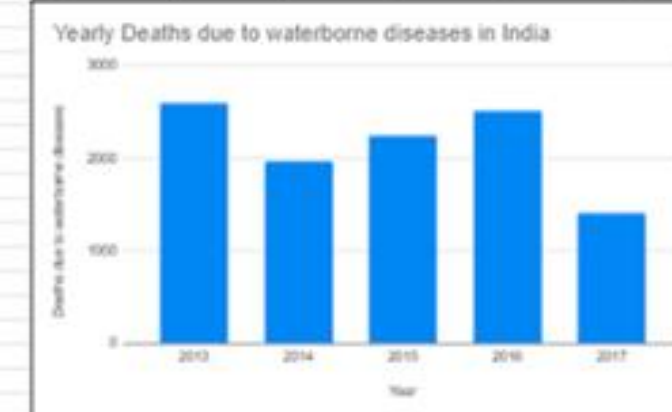
# Water Classrooms: Transforming Education for Sustainable Futures



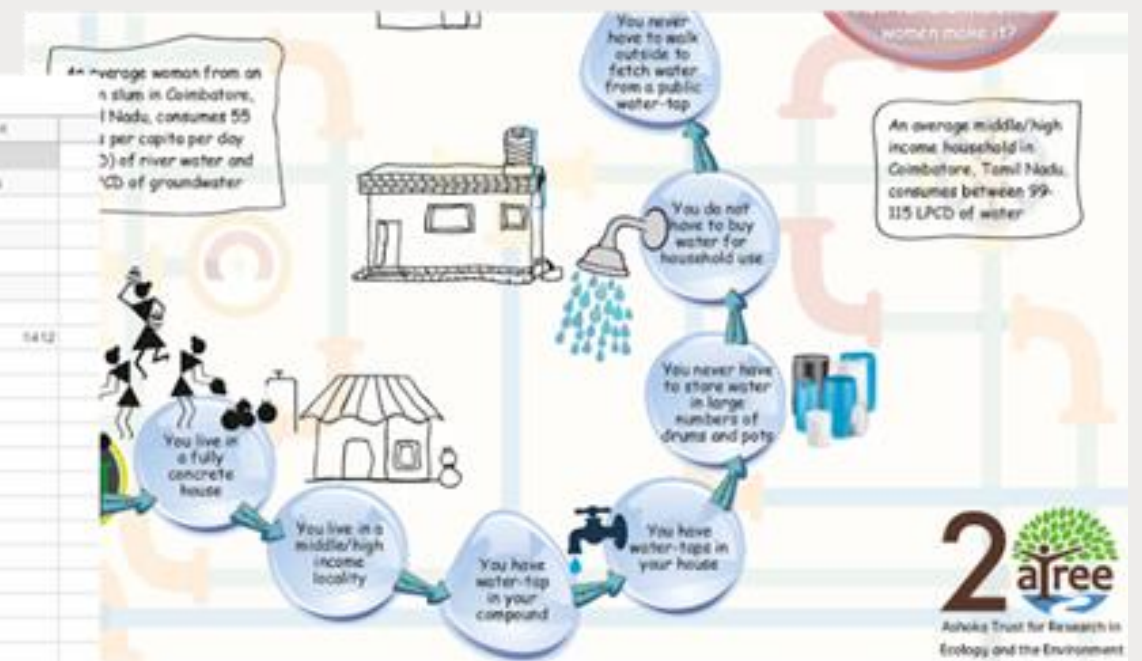
for standards 5 to 8

Centre for Environment Education

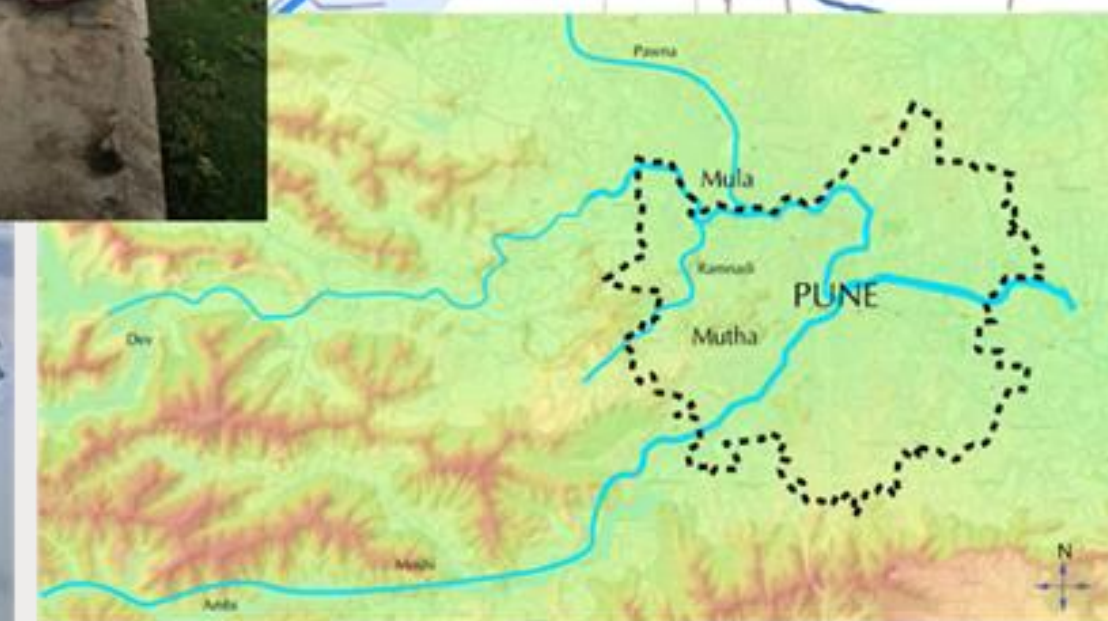
	2015	2016	2017	2018
Deaths	5	4	3	3
Cases	813	718	385	3
	1137	12913606	1353	14166574
	425	1937413	452	2218805
	400	140861	435	148870
			451	58286
				283



Example Figure for the reference of the teacher. Students can draw something different as long as they follow the instructions.



Use	Amount (litres)	Time used for (minutes)	Number of times per week	Amount used per week (litres)
shower	7/min			
power shower	12/min			
bath	80			
wash basin	5			
toilet	6			
running tap	6/min			
kettle	2			
washing up bowl	5			
dishwasher	15			
washing	50			





# Water Classrooms Framework

WATER AND THE SELF	SHARED WATERS
Water and 'myself'	Water values/cultural practices
Where does my water come from?	Water as a human right (access)
Water I use and virtual water	Water and gender
Water and health	Water and the arts
OUR WATER SYSTEMS	WATER AND THE PLANET
Who manages our waters?	Water and climate
Water and Agriculture	Water and biodiversity
Wastewater	Ocean systems
Water and energy	Water and what I can do
Water and disasters	

**[www.waterclassrooms.in](http://www.waterclassrooms.in)**



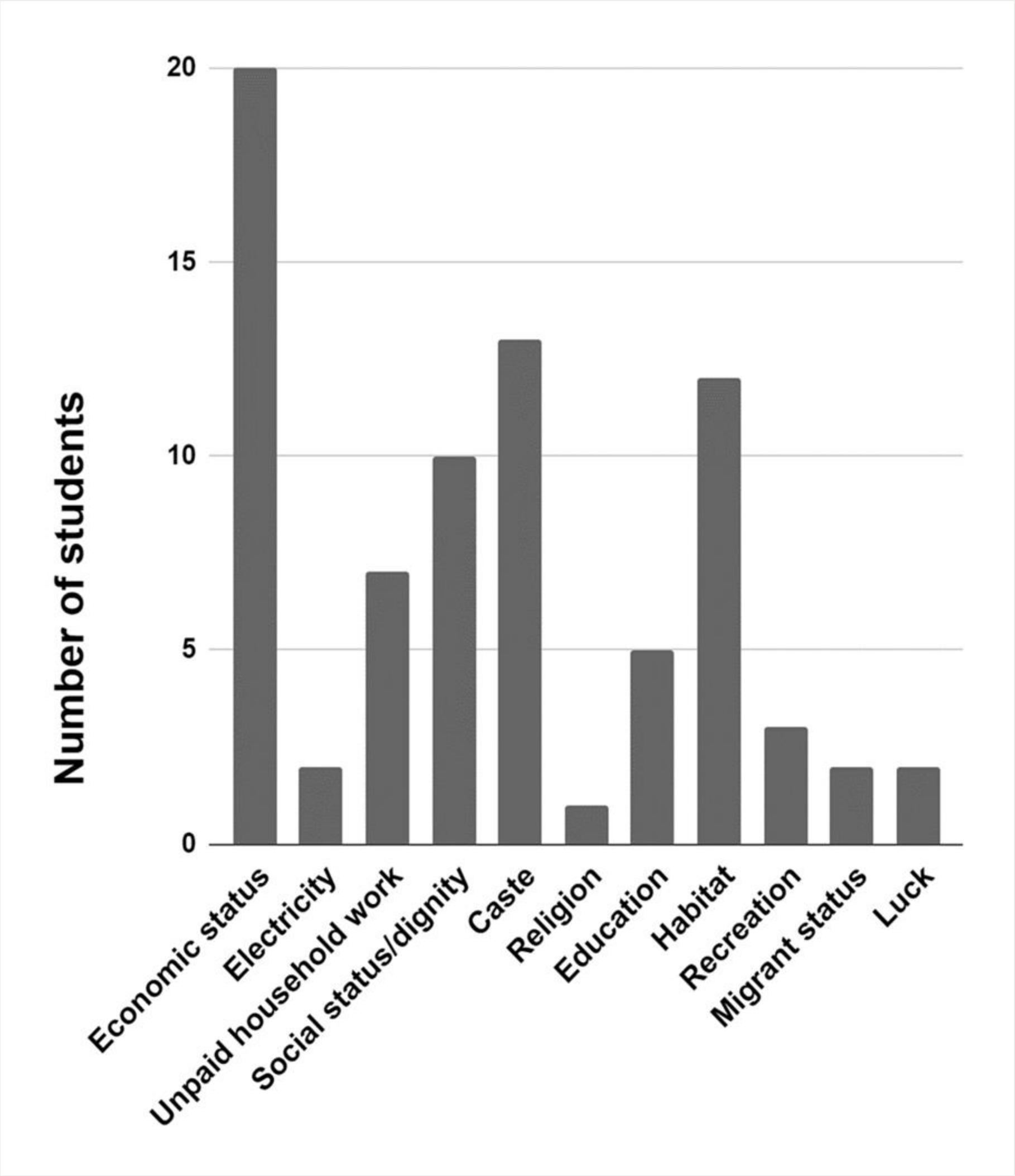
# Our Process

- Content development: collaborative
- Educators, NGOs, subject matter experts, research students, designers, artists
- Research / learning outcomes / lesson plans / facilitator's notes / activities
- Peer review: interactive, innovative, inclusive (equity, gender, discrimination)
- Workshops with middle school children in Pune from diverse backgrounds - testing
- Evaluation and feedback: students, faculty
- Exhibition on learning outcomes through the arts



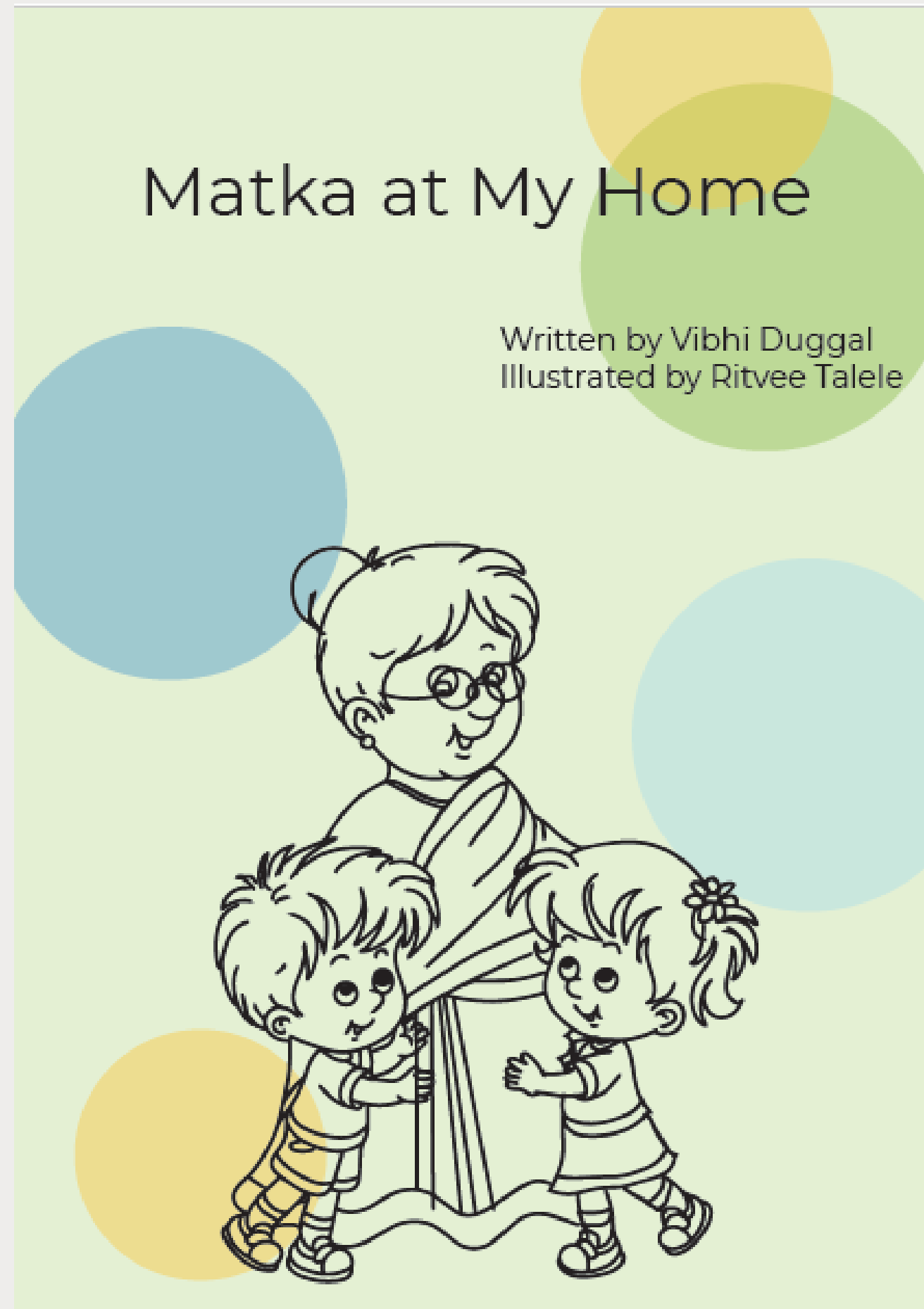


# Water and Access: The Privilege Game





# Water and What I Can Do



**Knowledge of the traditional and the modern can help pave the way for the sustainable: cross-generational and cross-cultural communication.**



# Teaching Plans

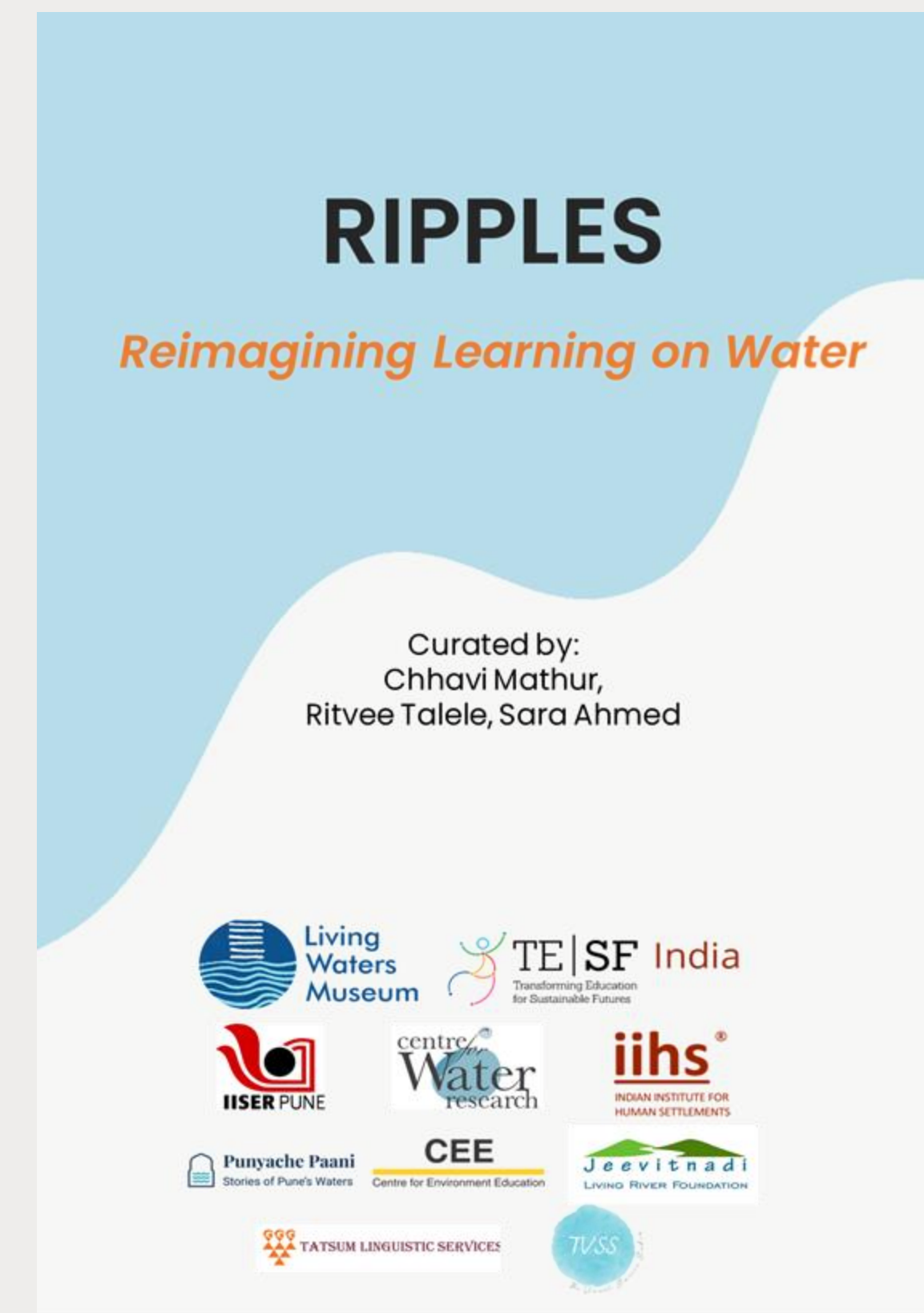
Water and the Self ~ visual, inquiry-based

Shared Waters ~ interactive, experiential

Our Water Systems ~ interdisciplinary

Water and the Planet ~ systems thinking

*version 1 tested  
under revision*



## Skills/competencies

- Observing the world around us
  - Multiple perspectives
  - Working in groups
    - Negotiation



# AQUAMUSE: Museum-Making through Education and the Arts



**Water Classrooms are being adapted and contextualised by the Musée de l'Eau to develop a program on water education for primary school students in Burkina Faso: rural, resources, capacities, conflict, language**

**Pilot-testing of teaching plans on Water Management and Water Cycle through storytelling and art activities. Online writing workshops: gender, sanitation, climate change**





# AQUAMUSE: Water-Culture-Society Course

- Online course being developed by IHE-Delft, IISER-Pune and IIT-Kharagpur for water professionals, curators, educators, researchers
- Modules on peace, media, fluid landscapes, women's voices, the arts
- 5-6 weeks, self-learning, video based, case studies, self-assessment
- Learning objective: critical skills to understand water values, listen to indigenous and marginalized voices and bring culture and creative approaches into the discourse on IWRM





# Connect with Us

Feel free to reach out to us for more information or to collaborate with us.

Living Waters Museum:

[livingwatersmuseum@gmail.com](mailto:livingwatersmuseum@gmail.com)

Sara Ahmed:

[sara@livingwatermuseum.org](mailto:sara@livingwatermuseum.org)

Chhavi Mathur:

[chhavi.lwm@gmail.com](mailto:chhavi.lwm@gmail.com)

