



Platform for Development Research & Communication

2

# Policy Brief

August 2026

## Beyond Quotas: Mainstreaming Gender in Groundwater Governance in Semi-Arid Rural India

### Core Policy Message

Women's participation in groundwater governance remains largely quota-based. State water policies should, therefore, shift from quota-based participation to binding gender-responsive governance, supported by gender budgeting, institutional accountability, leadership development, and phased reforms to address structural barriers, including the land–water rights linkage.

# About the Policy Brief Series

The Policy Brief Series is a flagship publication of the Bharti Institute of Public Policy (BIPP), Indian School of Business, that translates rigorous research into concise, evidence-informed, and actionable policy insights for policymakers, practitioners, researchers, and development partners. By synthesising research into accessible policy briefs, the series aims to bridge the gap between evidence and policymaking and support informed public decision-making.

This Policy Brief is part of the Human Development Policy Brief Series, a thematic collection developed under the PDRC Supplementary Grant, funded by the Gates Foundation. This series is based on the six Human Development volumes published under the Bharti Institute of Public Policy–Routledge book series, *Innovations, Practice and the Future of Public Policy in India*.

Each policy brief translates the evidence, implementation lessons, and policy recommendations from a published book chapter into a concise, practitioner-oriented resource for policymakers and development practitioners. Readers are encouraged to consult the original chapter for a comprehensive discussion of the evidence, methodology, and analysis.

## SERIES EDITORS

Ashwini Chhatre  
Aarushi Jain

## MANAGING EDITOR

Nimisha Jain

## EDITORIAL & PRODUCTION TEAM

Smriti Sharma (Chief Copy Editor)  
Madhuparna Banerjee (Copy Editor)  
Kanika Rana (Graphic Designer)

## POLICY BRIEF DEVELOPED BY

Kalash Gautam

Original Chapter: Gender Mainstreaming in the Water Sector: Challenges and a Way Forward for Semi-Arid Rural India

Chapter Author(s) : **Eshwer Kale**, Thematic Lead, WOTR Centre for Resilience Studies (W-CReS); **Marcella D'Souza**, Founder Director, WOTR Centre for Resilience Studies (W-CReS); **Swati Sinha**, Social Development Professional

Published in *Changing Tides: Climate Action and Justice in India* part of the Bharti Institute of Public Policy–Routledge Series on Human Development in India.



Scan to Access  
the Volume

# Executive Summary

## Policy Problem

Access to water in semi-arid rural India is fundamentally a climate justice issue. Although women bear primary responsibility for household water management and contribute substantially to agriculture in groundwater-dependent regions, they remain largely excluded from decisions on groundwater governance. Over 80% of India's agriculture relies on groundwater in non-command areas. As climate change intensifies water stress, women's exclusion from planning, budgeting, and resource allocation undermines both equity and effective groundwater governance. Existing quotas have delivered symbolic, rather than meaningful, participation.

## Key Findings

Women's participation in village water management teams (VWMT) was assessed using a typology developed by Bina Agarwal (2001, 2009). women's participation was observed at 'nominal', 'passive' and 'activity-specific' levels (e.g., shramdaan), while men dominated at 'consultative', 'active' and 'interactive' levels. (Refer to Table 6.1 in the chapter)

- Quota-based female representation is frequently undermined by proxy participation, where male relatives (often husbands) attend meetings on behalf of nominated women, a pattern mirrored in panchayats ('Sarpanch Pati').
- Socio-cultural norms and structural inequities in land ownership frame water management as 'technical', and domestic water collection is framed as female; participation imposes an unpaid double on women, including loss of agricultural wages of Rs 200-250 per day.
- Programme strategies itself perpetuate exclusion through shortages of female field staff, , and gendered titles such as Jal Purush, and Jal Yoddha, promoting thereby the continuation of male dominance.

## Recommendations

Select women representatives through Self-Help Groups (SHGs) and women-only Gram Sabhas to prevent proxy nominations; embed demystified technical training for women; schedule activities around women's time constraints; expand female field staff and adopt gender-neutral terminology; revise water policies to recognise women's roles in groundwater management; adopt gender budgeting; and examine de-linking water rights from land ownership.

# Background and Context

---

The water resources in semi-arid India face increasing climate stress, altering rainfall patterns and groundwater recharge. India's policy architecture formally endorses women's participation; the National Water Policy (2012) and Maharashtra State Water Policy (2019) provide for numerical representation of women in committees, and the water stewardship initiative (WSI), implemented by Watershed Organisation Trust (WOTR) across 487 villages in different groundwater dependent regions (2016 onward), targeted 50% women's membership in Village Water Management Teams (VWMTs). For this study, 14 WSI villages spread in Ahmednagar (now Ahilyanagar) and Jalna district of Maharashtra were selected. The brief adopts the Gender and Development (GAD) approach. Governance has also shifted; the Maharashtra Water Resource Regulatory Authority Act, (Government of Maharashtra, 2005) articulates the global shift—from perceiving water as a social good to be provided free by the government to acknowledging that it is a scarce economic resource to be provided according to a standard of service, for which users are willing to operate, maintain, and pay (Wagle et al., 2009).

The primary stakeholders include rural women, who carry domestic and agricultural burdens with limited formal voice; rural men, who control decisions and often act as proxies; village institutions (VWMTs, Gram Panchayats), where participation does or doesn't translate into influence; and implementing agencies/the state, whose design choices shape outcomes.

The gap between policy provisions for women's participation and the reality of their largely passive, activity-specific, numerical representation stems from the inadequate attention given to the structural barriers that keep participation passive rather than active, often resulting in proxy participation. Addressing these barriers is the central concern of this brief.



# Problem Diagnosis

---

## Gap 1: Quota-based Representation without Voice (Tokenism and Proxy Participation)

**Evidence:** A participation typology across 14 villages found men clustered at consultative, activity-specific and active levels, while women remained at passive and activity-specific levels. (Agarwal, 2001, 2009). VWMTs showed women's representation across social groups, but many attended silently or lacked awareness of their role; the local vested groups act as 'gatekeepers' to select women on committees (Sharma, 1998), nominating them from their own families who then act as 'dummies' while the men 'rule the roost' and the male relatives echo in panchayats via terms like 'Sarpanch Pati' (sarpanch's husband) or 'Sadasya Pati' (husband of a lady member).

**Implication:** Quotas alone cannot ensure fair participation where local gatekeepers and political patronage persist. Without safeguards against proxy nomination, it's difficult to see women's real influence over decision-making in water management.

## Gap 2: Socio-Cultural Norms and Double Burden on Women

**Evidence:** Gender stereotypes, domestic workloads, and social stigma confine women to domestic water roles, limiting their participation in technical water management and decision-making. Social taboos add further constraints: when women attend water-related meetings outside their villages alongside unrelated men, rumours about their character circulates in their communities, discouraging other women from stepping out.

**Implication:** Participation is key to decentralisation (Kulkarni, 2011). Without engaging women directly, increasing women's numbers on paper alone is not enough to translate into sustained participation, presence and voice.

## Gap 3: Programme and Project Design Reinforce Gendered Exclusion

**Evidence:** Insufficient female field staff, weak outreach, and limited gender-sensitive training reduces women's participation. Sociopolitical norms and titles like 'Jal Bandhu', 'Jal Nayaks', 'Jal Sevak', reinforce male dominance, confine women to community labour and domestic water supply, excluding them from water budgeting and decision-making.

**Implication:** Designations like Jal Bandhu, Jal Nayaks, and Jal Sevak perpetuate patriarchy, while assigning women to community labour and domestic water supply rather than water budgeting or decision-making. This keeps their participation symbolic.

## Gap 4: Economic Disincentives and the Land-Water Rights Linkage Exclude Women

**Evidence:** Women (and some men) reported being unable to attend workshops, because doing so would prevent them from working that day, resulting in the loss of their daily wages of Rs 200–250. This is particularly significant in the cotton-growing Marathwada during kharif and rabi seasons. More structurally, water access remains linked to land ownership, an asset women rarely hold independently.

**Implication:** Without addressing the direct economic costs of participation and the land-water rights linkage, even well-designed participatory processes will under-represent women, particularly from poorer households.

# Theory of Change



# Policy Recommendations

| Finding                                                                                                      | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Proxy/dummy representation</b>                                                                            | <ul style="list-style-type: none"> <li>Select women representatives through SHGs and special women-only Gram Sabhas, with screening to identify active, vision-driven women, especially from weaker sections to ensure true representation.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Water management seen as "technical" and male.</b>                                                        | <ul style="list-style-type: none"> <li>Provide simplified, demystified training on water budgeting, groundwater monitoring, and micro-irrigation, targeted at women.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Social taboos and double burden restrict participation in workshops.</b>                                  | <ul style="list-style-type: none"> <li>Address negative social beliefs around women's mobility and decision-making power through gender-sensitive, gender-responsive communication.</li> <li>Educate and practice men, sharing women's household workload and treating women as equal partners in water management.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Programme design reinforces male dominance: shortage of female field staff reduces outreach to women.</b> | <ul style="list-style-type: none"> <li>Ensure project design transfers decision-making power to women over water budgets, planning, and conservation activities.</li> <li>Foster female field staff in project teams for outreach gender-balanced approach for roles at every stage.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Evidence from field: when women are given genuine responsibility, results are delivered.</b>              | <ul style="list-style-type: none"> <li>In Bhoyre, the Samyukt Mahila Samiti (Kale et al., 2025) (federation of SHGs) completed full sustainable land management (SLM) interventions for a micro-watershed independently proving that capacity-building and collective solidarity enable women to lead full technical water management.</li> <li>In Sundarwadi, Parubai Rathod,(Kale et al., 2025). an illiterate woman built a collective trust by first mobilising women around shared social concerns which became the foundation for women's active participation in water management at all stages.</li> <li>In Godri village,(Kale et al., 2025) Lilabai Sonune, a Gram Panchayat member and a VWMT member, built credibility by consistently engaging fellow committee members on water issues and motivating communities to manage groundwater responsibly; leveraged women's institutional presence to spread water and aquifer literacy.</li> </ul> |

# De-linking groundwater rights from land ownership

A long-term structural reform, not an immediate change



## Groundwater rights tied to land ownership

Disadvantages women, who own little land

### WHY REFORM IS SLOW



#### Legal arrangements

Tied to land titles



#### Land record systems

Record dependency



#### Vested interests

Landholders, irrigators

### PRAGMATIC PATHWAY



#### Pilot programmes

VWMTs & SHGs



#### State review

Evaluate outcomes



#### Legal reform

Broader reform



Groundwater rights remain tied to land ownership, excluding many women. Pilot recognition of women as independent groundwater users through local water institutions before scaling to state-level legal reforms.

Figure 1: De-linking groundwater-use rights from land ownership represents a long-term structural reform



# Stakeholder Roles

| Stakeholder                                | Role / Responsibility                                                                                                               | Mode of Engagement                                                              |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| <b>State Water Resources Departments</b>   | Revise policy language for gender-differentiated needs; adopt gender budgeting/auditing; review land – water rights linkage         | Policy review consultations; gender mainstreaming clauses in policy documents   |
| <b>Implementing NGOs and Practitioners</b> | Recruit adequate female field staff; demystify technical training; schedule around women's time constraints; rename gendered titles | Programme design, staff recruitment, training curricula, community mobilisation |
| <b>VWMTs; Gram Panchayats</b>              | Ensure non-proxy representation; integrate women's inputs into water budgets and conservation plans                                 | Village meetings, planning workshops, decision-making forums                    |
| <b>Women's SHGs and collectives</b>        | Identify capable women for committee positions; build solidarity and confidence                                                     | Women-only Gram Sabhas, SHG meetings, peer networks                             |
| <b>Donors and financing partners</b>       | Fund and incentivise gender-responsive design and monitoring                                                                        | Financing conditions, M&E frameworks, knowledge dissemination                   |

## Call to Action

Women are central to water governance in semi-arid rural India, yet remain confined to passive, unpaid, and often proxy roles in the institutions meant to represent them. Treating their participation as a numerical target rather than real decision-making power risks less equitable and less sustainable outcomes as climate change intensifies pressure on groundwater. Global evidence consistently shows that water management is more sustainable, transparent, and equitable where gender mainstreaming is actively pursued and women are empowered to participate in planning and decision-making (Castaneda et al., 2012; UNDP, 2006).

First, implementing agencies should revise staffing and committee-selection protocols within current project cycles. Second, State Water Resources Departments should incorporate gender provisions and gender-responsive budgeting tools in the next State Water Policy review. Third, donors should make gender-responsive project design, including the indicators proposed in this brief—a condition of future water-sector financing.

Implementing these steps would move women into interactive and decision-making roles rather than limiting them to implementation tasks. The evidence from women-led watershed initiatives, mentioned in this brief, demonstrates that this is both feasible and effective.



## **PUBLISHED BY**

Bharti Institute of Public Policy, Indian School of Business, Mohali Campus: Indian School of Business, Knowledge City, Sector 80, SAS Nagar, Mohali-140306; Hyderabad Campus: Indian School of Business, Gachibowli, Hyderabad-500111

## **CITATION**

Bharti Institute of Public Policy. (August,2026) Beyond Quotas: Mainstreaming Gender in Groundwater Governance in Semi-Arid Rural India. PDRC Supplementary Grant Policy Brief Series. Indian School of Business.

[DOI: https://doi.org/10.5281/zenodo.21639185](https://doi.org/10.5281/zenodo.21639185)

### **AI Use Disclosure**

*Artificial intelligence tools were used to support evidence synthesis, drafting, and language refinement during the preparation of this policy brief. All content has been reviewed, validated and finalised by the contributors listed above.*



## **CONTACT US**

### **HYDERABAD CAMPUS**

Indian School of Business Gachibowli,  
Hyderabad, Telangana - 500 111  
Ph +91 40 2300 7000

### **MOHALI CAMPUS**

Knowledge City, Sector 81, SAS Nagar,  
Mohali, Punjab - 140 306  
Ph +91 172 459 0000

For Information on  
Bharti Institute  
of Public Policy:



Scan Here



Follow us on: