

## BRIDGING THE GAP: COMMUNITY-BASED WATER GOVERNANCE FOR ACHIEVING SDG 6 IN RURAL INDIA

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### INTRODUCTION

Water is fundamental to life, livelihoods, and sustainable development. Recognizing this, the United Nations adopted Sustainable Development Goal 6 (SDG 6) with the objective to “ensure availability and sustainable management of water and sanitation for all” by the year 2030. This goal is crucial not only for health and well-being but also for agriculture, poverty alleviation, gender equality, and climate resilience. However, despite the importance of this goal and considerable policy attention in India, access to safe, adequate, and reliable water remains deeply unequal, particularly in rural and semi-arid regions.

In India, government-led programs like the Jal Jeevan Mission (JJM) and the Integrated Watershed Management Programme (IWMP) have attempted to address these water challenges by improving infrastructure, promoting rainwater harvesting, and ensuring functional household tap connections. Yet, these top-down approaches often face challenges such as poor maintenance of infrastructure, limited community ownership, and uneven service delivery. Many villages, especially in environmentally fragile and economically backward areas, continue to suffer from water scarcity, seasonal droughts, and degraded water sources.

It is in this context that Community-Based Water Governance (CBWG) has emerged as a compelling alternative or complementary model. CBWG refers to the involvement of local communities especially marginalized groups like women, small farmers, and landless labourers in the planning, implementation, monitoring, and maintenance of water resources and infrastructure. It promotes participatory decision-making, local accountability, and sustainable resource management practices that are tailored to the unique ecological and socio-cultural contexts of each community.

Evidence from across India and other parts of the Global South indicates that when communities actively participate in water governance, the results are often more equitable, efficient, and sustainable. Community-led initiatives such as the formation of Village Water and Sanitation Committees (VWSCs), Pani Panchayats, and Water User Associations (WUAs) have shown promising results in enhancing water availability, quality, and infrastructure durability. Moreover, when women are meaningfully included in these governance bodies, the benefits are amplified: water allocation becomes more equitable, usage is better prioritized, and household water needs—often neglected in male-dominated decision-making—are addressed more effectively.

In addition to enhancing water access, CBWG models also align well with broader SDG 6 targets such as integrated water resource management (6.5), protecting and restoring water-related ecosystems (6.6), and strengthening the participation of local communities (6.b). Importantly, these approaches also generate co-benefits for other SDGs, including poverty reduction (SDG 1), gender equality (SDG 5), and climate action (SDG 13).

This article explores the potential and performance of community-based water governance in rural India, with a specific focus on its contribution to achieving SDG 6. Relying on secondary data, existing literature, and case studies, it analyzes the key components of successful CBWG models, identifies the barriers to their broader adoption, and offers practical policy recommendations. By doing so, it seeks to inform ongoing discourse and practice around decentralized water governance and highlight the importance of people-centric approaches in achieving water security for all.

#### **NABARD (2021)**

NABARD's synthesis report on watershed development highlighted that community-managed watershed projects in semi-arid regions led to measurable improvements in groundwater recharge, soil moisture retention, and cropping intensity. The report emphasized that community participation especially in planning and maintenance was critical for the long-term sustainability of water resources.

#### **IWMI (2020)**

The International Water Management Institute's case studies from South Asia showed that gender-inclusive water governance models were more effective in ensuring equitable access and sustainability. The study found that involving women in water user associations led to better water allocation, reduced conflict, and stronger monitoring of shared water infrastructure.

#### **Ministry of Jal Shakti (2023)**

The government's progress report on the Jal Jeevan Mission noted that villages with active Village Water and Sanitation Committees (VWSCs) and trained SHG members reported higher functional tap water coverage and better water quality monitoring. It also found that community ownership led to faster response to leakages and breakdowns.

#### **DHAN Foundation (2020)**

A report from the DHAN Foundation, based on projects in Tamil Nadu, documented that community-based watershed management initiatives led to the revival of traditional tanks, creation of percolation ponds, and improved irrigation access for smallholders. The report also highlighted that women's SHGs played a key role in water budgeting, maintenance, and microenterprise development around water services.

#### **Planning Commission of India (2014)**

The evaluation study on the Integrated Watershed Management Programme (IWMP) found that projects with strong local institutional frameworks, including user groups and watershed committees, had greater success in soil and water conservation, livelihood enhancement, and reduced out-migration. Gender-focused interventions further improved the inclusiveness and resilience of these programs.

#### **OBJECTIVES**

- To examine the role of community-based water governance in improving water access and sustainability in rural India.
- To assess the alignment of CBWG practices with the targets under SDG 6.
- To identify key challenges and opportunities in scaling CBWG models through policy and institutional support.

#### **METHODOLOGY**

This study relies on secondary data analysis, drawing from:

- Government reports and evaluations (e.g., MoRD, Jal Shakti Ministry, NITI Aayog).
- Academic journals and case studies on participatory water management.
- Reports from development organizations such as IWMI, World Bank, and NGOs like DHAN Foundation.

A qualitative synthesis approach was adopted to compare case studies of CBWG practices across different Indian states, with particular attention to outcomes related to water access, quality, equity, and sustainability.

## FINDINGS

### Enhanced Access and Availability

CBWG initiatives in states like Maharashtra (e.g., Pani Panchayats) and Tamil Nadu (e.g., DHAN Foundation's watershed work) led to increased water availability for both domestic and agricultural use through decentralized rainwater harvesting, community tanks, and borewell recharge systems.

### Equity in Water Distribution

Inclusion of marginalized groups and women in water user committees led to **more equitable distribution** of water resources. Studies by IWMI (2020) and ICAR (2022) confirm that when women and landless workers participate in decision-making, water use priorities broaden beyond large farmers to the entire community.

### Improved Water Quality and Infrastructure Management

Community monitoring helped detect contamination early and reduce infrastructure misuse. For instance, Jal Jeevan Mission's village-level monitoring frameworks showed higher performance in areas with functional Village Water and Sanitation Committees (VWSCs).

### Alignment with SDG 6 Targets

CBWG contributes directly to SDG 6.1 (safe and affordable drinking water), 6.5 (integrated water resource management), and 6.b (community participation in water and sanitation management).

## SUGGESTIONS

### Strengthen Policy Backing for CBWG

To institutionalize Community-Based Water Governance, it is essential to provide formal recognition and sustained policy support at the grassroots level. Establishing dedicated CBWG units within Gram Panchayats will ensure localized planning and oversight of water resources. These units should be integrated with ongoing national missions such as the Jal Jeevan Mission (JJM) and the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). This will not only streamline fund flow and implementation but also allow communities to access a broader range of technical and financial support. Clear guidelines, legal mandates, and accountability frameworks are necessary to ensure that these bodies are empowered and functional across all rural areas.

### Build Local Capacity

Successful water governance depends on the knowledge and skills of local actors. Therefore, investing in continuous capacity building is critical. Regular training programs should be organized for Village Water and Sanitation Committees (VWSCs), Self-Help Groups (SHGs), and other local stakeholders on key aspects such as water budgeting, infrastructure operation and maintenance, and basic water quality testing. These programs can be delivered through partnerships with NGOs, universities, and government training institutes. Equipping local communities with these competencies will reduce dependency on external agencies and improve long-term sustainability of water systems.

### Ensure Gender Representation

Water governance systems must be inclusive to be truly effective. Women, who often bear the brunt of water scarcity and are primary managers of household water use, must have a central role in water decision-making processes. A policy mandate requiring at least 50% representation of women in water user committees and VWSCs will institutionalize their participation. Additionally, specialized leadership training for women should be provided to build their confidence, negotiation skills, and technical understanding. Gender-sensitive tools and facilitation techniques should also be used to ensure that women's voices are heard and influence decisions.

### Institutional Convergence

Water management is inherently cross-sectoral, involving agriculture, health, rural development, and environment. To avoid fragmentation and duplication, there is a need for strong inter-departmental coordination. District-level convergence platforms should be created or

strengthened to align planning and implementation among departments such as the Rural Development Department, Agriculture Department, and Water Resources Department. Integrated planning, shared monitoring systems, and co-financing models can help optimize resources, fill institutional gaps, and ensure that CBWG efforts are not undermined by parallel and uncoordinated initiatives.

### **Technology for Transparency**

Digital technologies offer powerful tools to enhance transparency, accountability, and efficiency in water governance. The use of mobile applications, GPS-enabled monitoring, and Geographic Information Systems (GIS) can help communities and administrators track water sources, monitor usage, detect leakages, and oversee infrastructure maintenance in real time. These platforms can also provide alerts, store records, and facilitate grievance redressal. Training communities to use these tools will not only empower them but also increase trust in the governance process and attract youth participation.

### **CONCLUSION**

Community-Based Water Governance (CBWG) has emerged as a transformative strategy in addressing rural water challenges in India, especially in ecologically sensitive and economically marginalized regions. As India strives to meet the targets under Sustainable Development Goal 6 (SDG 6) which emphasizes universal access to safe and sustainable water and sanitation CBWG offers a participatory, inclusive, and locally tailored solution to the persistent issues of water scarcity, infrastructure neglect, and inequitable access.

At the core of CBWG is the principle of decentralized and democratic resource management, where water users themselves become the stewards of local water resources. This approach shifts the narrative from communities being passive recipients of government services to active agents of change who plan, implement, and monitor water interventions. By fostering a sense of ownership, CBWG contributes to greater accountability, reduced system leakages, timely maintenance, and ultimately, the long-term sustainability of water assets.

One of the most powerful aspects of CBWG is its ability to address the equity dimensions of water governance. Involving women, marginalized caste groups, and smallholder farmers in decision-making processes leads to more equitable distribution of water, attention to household and agricultural needs, and increased transparency in resource allocation. Gender-inclusive water governance, in particular, has proven effective in ensuring that infrastructure investments reflect the diverse needs of the community, thereby enhancing both social justice and functional outcomes.

Furthermore, CBWG models are highly resilient in the face of climate variability. By leveraging local knowledge, promoting groundwater recharge, and adopting decentralized water harvesting systems, these models offer climate-adaptive solutions that are both cost-effective and environmentally sound. They also encourage the integration of traditional wisdom with modern science, allowing for context-specific innovation and long-term resource sustainability.

However, for CBWG to achieve its full potential and contribute meaningfully to SDG 6, there is a need for stronger institutional and policy support. This includes formal recognition of local water governance bodies, capacity-building programs, convergence across government schemes (such as Jal Jeevan Mission, MGNREGS, and NRLM), and dedicated financial and technical assistance. States and districts that have already demonstrated success in participatory water management should be used as models for replication and scaling.

In conclusion, community-based water governance is not just a developmental option—it is a necessity for a water-secure, equitable, and climate-resilient future. Empowering communities to lead water management efforts is a critical step toward realizing SDG 6 in spirit and practice, while also contributing to broader goals such as poverty alleviation, gender equity, and sustainable livelihoods in rural India.

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