Jal Jeevan Samvad

October | Volume 5 | Issue 10 | Year 2024

Har Ghar Jal
Jal Jeevan Mission

Building Partnership
Changing Lives

Theme
Theme: Swachh Sujal Gaon

Contents

Editor-in-Chief

Dr. Chandra Bhushan Kumar
Additional Secretary &
Mission Director, NJJM

Editor

Yogendra Kumar Singh
Director, NJJM

Editorial Team

Lopamudra Panda
Amit Kumar Ranjan
Arpan De Sarkar
Shailika Sinha
Utkarsha Rathi

Design: Arif Khan

49th Edition

October 2024

National Jal Jeevan Mission

New Delhi - 110 003
e - mail: rnd-ddws@gov.in

Hon'ble President of India on Jal Jeevan Mission

Droupadi Murmu
President of India

*2019 में सरकार द्वारा **जल जीवन मिशन** का शुभारंभ किया गया, इस मिशन की शुरुवात के समय केवल 17 प्रतिशत ग्रामीण प्रारिवारों के पास नल से जल की सुविधा थी, आज 78% से अधिक परिवारों के पास नल से जल पहुंचा दिया गया है।*

Hon'ble President of India during National Water Awards event held at Vigyan Bhawan, New Delhi

Har Ghar Jal
Jal Jeevan Mission

Note from the desk of

Additional Secretary & Mission Director...

New Delhi
31st October, 2024

The essence of life in rural India is intricately connected to water. This vital element flows beyond its immediate physical form, weaving its way through the tapestry of everyday living. It is water that transforms villages, unlocking opportunities for health, happiness, and growth. The availability of clean drinking water, coupled with proper sanitation facilities, fosters a deep sense of well-being among communities.

As we journey into the October edition of *Jal Jeevan Samvad*, it is inspiring to see how, step by step, our commitment towards building "Swachh Sujjal Gaons" is transforming the rural landscape of India. This month's theme, *Swachh Sujjal Gaon*, captures the essence of an integrated, sustainable approach to rural development where safe drinking water and adequate sanitation are not merely provisions but the foundation of empowered, prosperous communities.

When we look at villages today, we witness more than the fulfilment of a basic need. We see lives changed in profound ways. Women, traditionally tasked with the burden of fetching water from distant sources, now find freedom and time for education, entrepreneurship, and other pursuits. Children, no longer hindered by water-borne illnesses, attend school regularly, their futures brighter and healthier. Families are empowered to live with dignity and plan for a future without the looming threat of unsafe drinking water.

Swachh Sujjal Gaon is much more than infrastructure and metrics – it is about empowering rural India to thrive. As we align our goals with Sustainable Development Goal 6 (SDG 6), aiming for universal access to clean water and sanitation, the Swachh Sujjal Gaon initiative reflects the profound social impact these essentials have.

The stories from Mizoram's Sailam village, Gori in Arunachal Pradesh, and Bardand in Chhattisgarh stand as true examples of community-driven initiatives. These villages have not only achieved access to clean water and sanitation but have also redefined collective ownership, self-sufficiency, and environmental stewardship. With each household that gains access to a functional tap connection and every village that becomes ODF (Open Defecation Free) Plus, we take one step closer to realizing the goals of Jal Jeevan Mission and Swachh Bharat Mission-Grameen.

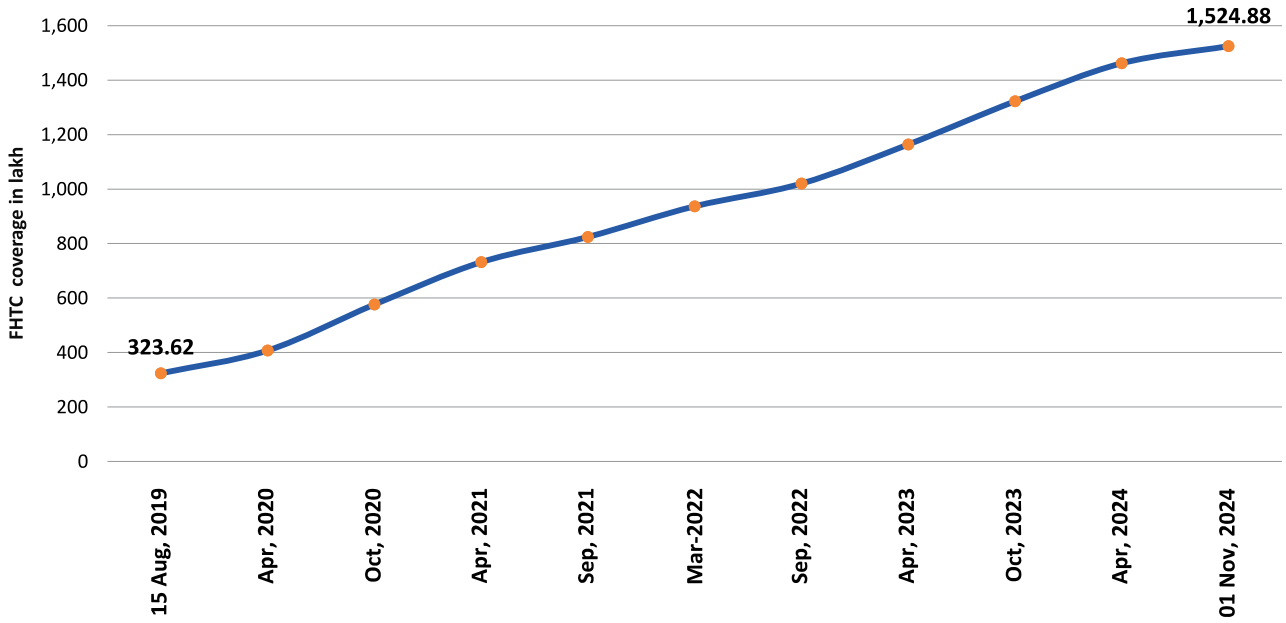
Evidence suggests that in Bundelkhand, known for its arid climate, the arrival of safe water has led to greater agricultural productivity and diversified livelihoods. In Ladakh's harsh terrain, reliable tap water has relieved women from the daunting task of carrying water across the rugged paths. In island regions, where water quality has always been a challenge, the mission has ensured sustainable sources, protecting the health of generations. The Andaman and Nicobar Islands, despite its remote location, was declared India's first Swachh Sujal Pradesh, demonstrating that with the right commitment and the focused approach, the most challenging landscapes can achieve lasting transformations. Across the length and breadth of the country, innovative solutions have emerged.

This month's edition presents a mosaic of inspiring stories, each highlighting the dedication and collaboration that continue to make Swachh Sujjal Gaon a reality. These stories celebrate the efforts of local leaders, community volunteers, and mission teams, whose hard work and tenacity are the strengths behind the headlines.

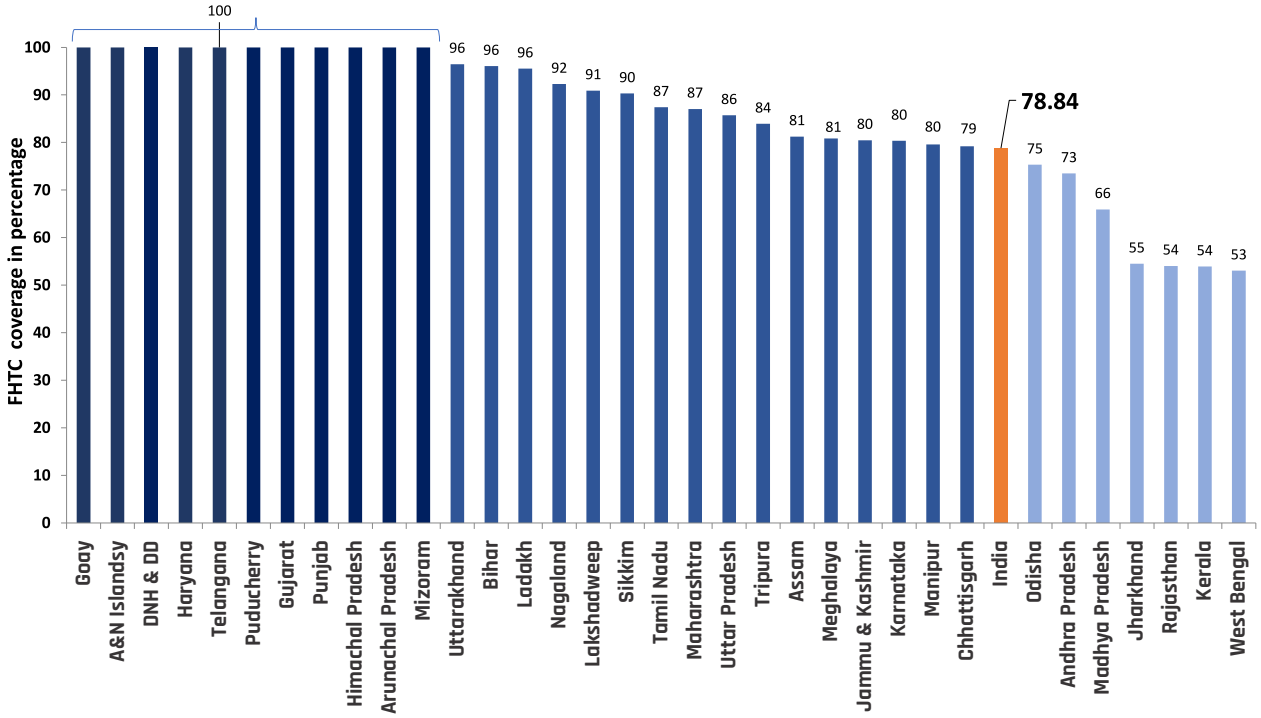
As we reflect on the journey so far, let us remember that the mission to achieve universal access to clean water and sanitation is an ongoing commitment. Every drop of water delivered, every sanitation facility maintained, and every community empowered brings us closer to a future where rural India is vibrant, healthy, and self-sufficient.

[Dr Chandra Bhushan Kumar]

Progressive coverage - Functional Household Tap Connection (FHTC) (as on 31.10.2024)



Comparative FHTC coverage status of States/ UTs (as on 31.10.2024)



Har Ghar Jal
Jal Jeevan Mission

As on 31st October, 2024

Source: JJM-IMIS

India | Status of tap water supply in rural homes

Total number of households (HHs)	Households with tap water connections as on 15th Aug 2019	Households with tap water connections as on date
19,34,11,304	3,23,62,838 (16.73%)	+6,633 15,24,88,240 (78.84%)

Households provided with tap water connection since launch of the Mission

12,01,25,402 (74.59%)

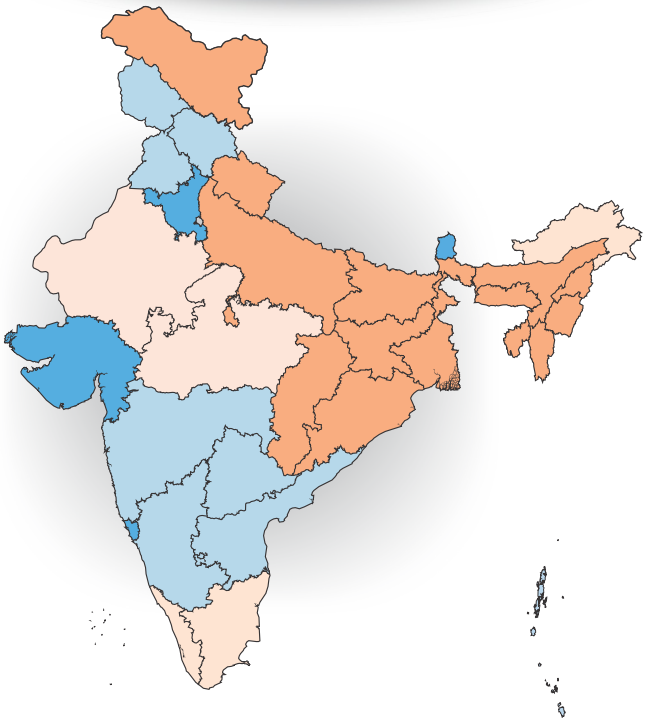
Har Ghar Jal [100% HHs with tap water connections]

100% FHTC States/ UTs

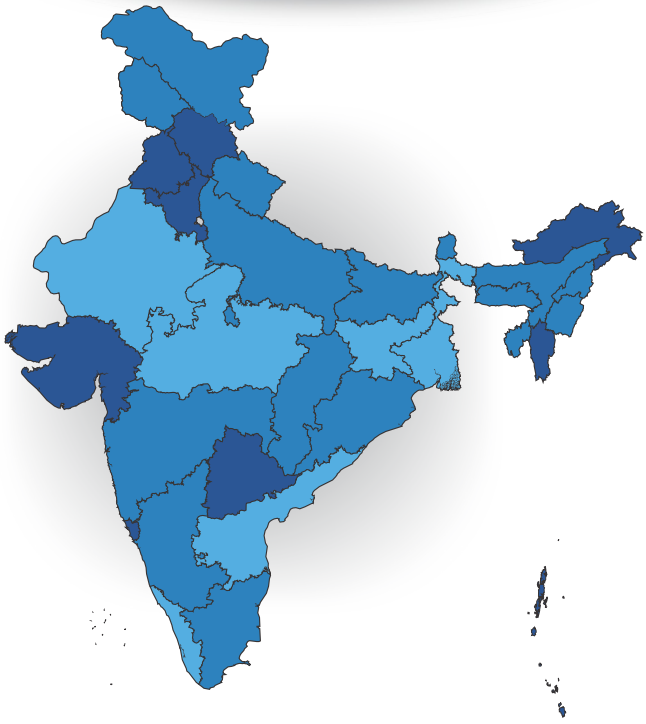
Goa, A & N Islands, Puducheerry, D&NH and D&D, Arunachal Pradesh, Haryana, Telangana, Mizoram, Himachal Pradesh, Gujarat

100% FHTC Districts	100% FHTC Blocks	100% FHTC Panchayats	100% FHTC Villages
165	1,819	1,14,576	2,42,931

As on 15th August, 2019



As on 31st October, 2024



0 to <10% | 10% to <25% | 25% to <50% | 50% to <75% | 75% to <100% | 100%

Swachh Sujal Gaon a Holistic Approach for Transforming Rural India

- **Lopamudra Panda,** MPU-PMCB, NJJM

India has embarked on an ambitious journey to ensure that every rural household has access to clean drinking water and sanitation, key components of **Sustainable Development Goal 6 (SDG 6)**. Through the **Swachh Sujal Gaon initiative**, the government is transforming rural communities, improving health, sanitation, and water management. This integrated approach brings together the **Jal Jeevan Mission (JJM)** and **Swachh Bharat Mission - Grameen (SBM-G)** to address India's complex challenges related to water scarcity, sanitation, and waste management under the aggies of Department of Drinking Water & Sanitation, Ministry of Jal Shakti.

Swachh Sujal Gaon represents India's holistic effort to provide every household in rural India with sustainable access to essential services like safe drinking water and sanitation. It tackles water and sanitation-related challenges in an integrated way, focusing on three important components:

- **Universal tap water access**: Providing functional tap connections in every household to ensure safe drinking water.
- **Sanitation beyond open defecation**: Moving beyond Open Defecation Free (ODF) status to focus on solid and liquid waste management under the ODF Plus framework.
- **Cross-cutting interventions: Convergence with other government funds, IEC for community engagement etc.**

This multi-pronged approach contributes significantly to improving the overall quality of life for rural populations, creating healthier, more resilient communities that are better equipped to face future challenges in water and sanitation.

Andaman & Nicobar Islands: India's First Swachh Sujal Pradesh

The Andaman & Nicobar Islands became India's first **Swachh Sujal Union Territory**, achieving this status despite the logistical challenges posed by its geographical isolation. The success story of the islands highlights how a combination of innovation, infrastructure development, and community participation can overcome even the most difficult circumstances. The key achievements include:

- **Infrastructure development**: Construction of water pipelines, installation of rainwater harvesting systems, and robust waste management infrastructure.
- **Community involvement**: Local leaders played a crucial role in educating the population about the importance of hygiene and water conservation.
- **Technological innovations**: The introduction of **IoT-based real-time monitoring systems** helped maintain and monitor water supply infrastructure, ensuring continuous access to clean drinking water.

- Andaman and Nicobar Island which is remotely located from the mainland has become a source of inspiration for the rest of the states and Union Territories of India.
- On A&N Island, there are 62,000 rural households spread across 266 villages in 9 blocks across three districts. The UT has given piped water supply to all 368 schools, 558 Anganwadi centres, and 292 public institution centres.
- On World Water Day, 22 March 2021, Andaman and Nicobar Islands declared to have achieved **100% coverage of rural households** with tap water connection. It became the third State/UT in the country to achieve 100% coverage of rural households with tap water supply after Goa and Telangana.

The achievements of the Andaman & Nicobar Islands demonstrate how government programs can be successfully implemented even in remote and geographically challenging areas through sustained efforts and community participation.

Accelerating Progress Toward SDG 6

Swachh Sujal Gaon is closely aligned with the United Nations' Sustainable Development Goal 6 (SDG 6), aiming to ensure clean water and sanitation for all by 2030. India has made notable progress toward achieving this goal, with Swachh Sujal Gaon contributing significantly to various sub-goals.

The initiative guarantees universal access to clean and affordable drinking water (Target 6.1) through the Jal Jeevan Mission, which has already provided over 12 crore rural households with functional tap water connections. Additionally, Swachh Sujal Gaon promotes sustainable sanitation through the ODF Plus model (Target 6.2), ensuring comprehensive solid and liquid waste management. This approach prioritizes health, hygiene, and dignity, particularly for women and vulnerable groups.

Swachh Sujal Gaon also addresses water quality (Target 6.3) through wastewater treatment and reuse, implementing greywater management systems across rural villages. Water-use efficiency (Target 6.4) is encouraged through technologies like rainwater harvesting and micro-irrigation, optimizing water usage in agriculture. Crucially, the initiative emphasizes community participation (Target 6.B) through Village Water and Sanitation Committees (VWSCs), empowering local communities to manage and monitor water and sanitation systems.

By integrating these key components, Swachh Sujal Gaon demonstrates India's commitment to achieving SDG 6. Through this holistic approach, the initiative ensures long-term sustainability, local ownership of water resources, and improved quality of life for rural communities.

Social Impact: Health, Dignity, and Empowerment

The **Swachh Sujal Gaon** initiative is about transforming lives by addressing basic needs like access to clean water and sanitation, the two areas having a profound impact on the social fabric of rural India.

Challenges and Future Directions

Some regions, particularly remote, drought-prone, hilly and water scarce areas, continue to face logistical difficulties in establishing reliable water supply systems. **Disasters, Natural calamities, and Climate change** poses additional risks, such as extreme droughts or floods, change

Health & Hygiene

Improved access to clean drinking water and proper sanitation facilities has led to a significant reduction in waterborne diseases, including cholera, diarrhea, and dysentery. Clean water and toilets are key to reducing child mortality rates and improving general health outcomes in rural communities. Additionally, the emphasis on hygiene practices like regular handwashing has helped curb the spread of infections, particularly in the aftermath of the COVID-19 pandemic.

Gender Empowerment

Women & girls have particularly benefited. Access to toilets has not only improved hygiene but also restored dignity and safety for women/girls, freeing them from the indignity and risks associated with open defecation. Women's involvement in community water management through participation in VWSC. This inclusion has empowered women to have a say in the governance of their communities, giving them a voice in crucial decisions that affect their daily lives.

Economic & Social Development

Swachh Sujal Gaon is driving rural socio-economic development. Access to clean water and sanitation frees up time for education, community participation, and income-generating activities, particularly for women. The initiative has also created local employment opportunities through the construction of infrastructure, such as water supply systems and toilets, and the management of waste.

in rainfall pattern which could disrupt water supply and sanitation infrastructure.

To ensure sustained progress and resilience, focus should be on:

- **Expanding innovative solutions** like rainwater harvesting and desalination in coastal areas to address water scarcity.
- **Strengthening public-private partnerships** to bring in additional investment, technology, and expertise to scale up water and sanitation systems.
- **Promoting behavioural change campaigns** to ensure that communities adopt long-term hygiene practices, such as regular handwashing and waste management and judicious use of water, water conservation and O&M of pipe water supply infrastructure.

Conclusion: Towards a Cleaner, Healthier, and More Resilient Rural India

As India continues to march toward achieving SDG 6 by 2030, the **Swachh Sujal Gaon** stands out as a transformative force in rural development. By addressing the intertwined challenges of water access, sanitation, and waste management, the initiative is improving public health, promoting gender equity, and empowering rural communities.

The **Jal Jeevan Mission** remains at the heart of this transformation, ensuring that sustainable and efficient water systems are implemented across rural India. Similarly, **SBM-G** is ensuring toilet use, waste management and hygienic practices to establish *Sampurn Swachhata* (total sanitation). With government commitment, community participation, and technological innovation, Swachh Sujal Gaon will continue to pave the way for a cleaner, healthier, and more resilient India.

Sailam – A Model Swachh Sujal Gaon in Mizoram: A Community-Driven 24x7 Water Supply and Sustainable Sanitation

- **Shri Lalrothanga,** EiC, PHED Mizoram; **Lopamudra Panda,** PMU-PMCB, NJJM

Introduction

Perching on the high hills of North-East, Mizoram is a storehouse of natural landscape, hilly terrain, meandering streams, deep gorges, rich flora and fauna. It is flanked by Bangladesh on the west and Myanmar on the east and south.

Mizoram occupies important strategic position with 722 km long international boundary. Mizos are a close-knit society with no class distinction and no discrimination on grounds of gender. The entire society is knitted together by a peculiar code of ethics '*Tlawmngaihna*' meaning "everyone to be hospitable, kind, unselfish and helpful to others".

Mizoram known as "*The Land of Rolling Hills, Lakes and Rivers*", faced water scarcity in many parts, due to mismanagement of water resources, growing demand, excessive extraction and scanty rainfall leading to drying up of water sources. The perennial water bodies are turning seasonal. There are many villages in Mizoram which used to get water only once a day while there are others which got water only once a month before Jal Jeevan Mission.

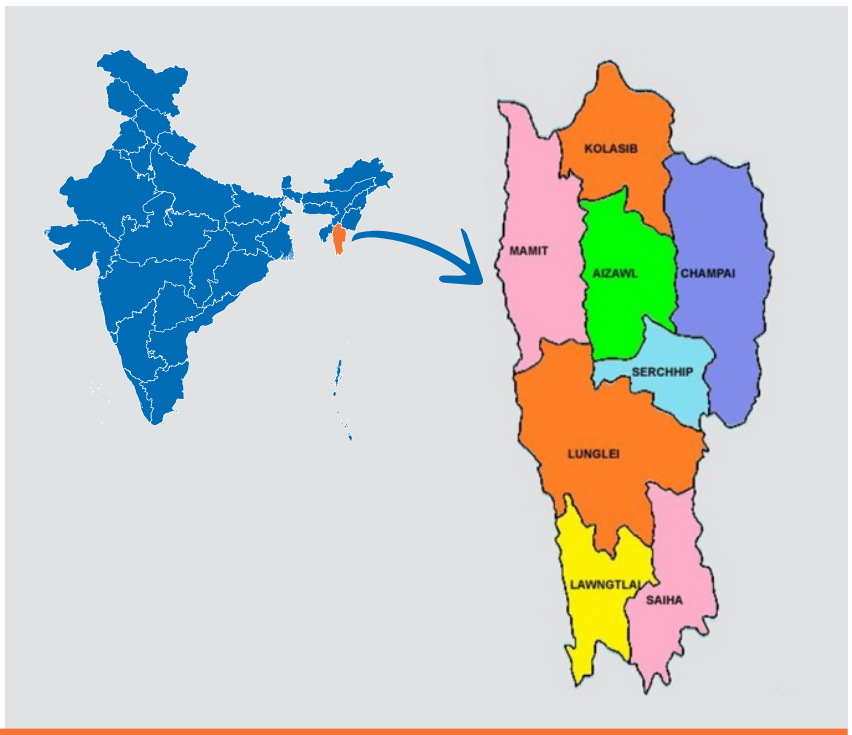


Figure 1: Sailam in map | Source: PHED Mizoram

Sailam Village, located 74 kilometers from Aizawl, the capital city of Mizoram, and nestled in the scenic mountains at an altitude of 4,400 feet, is a shining example of how community-driven initiatives can lead to sustainable development. With a population of 964 and 179 households, Sailam has transformed from a water-scarce village into a model of 24x7 water supply and sustainable sanitation. This transformation has been driven by the collective efforts of the local community, supported by government programs like the Jal Jeevan Mission (JJM), and environmentally conscious water management practices. In 2012, Sailam was awarded the Nirmal Gram Puraskar for its efforts in maintaining sanitation.

Today, Sailam is recognized not only for its 24x7 water supply at 55 liters per capita per day (lpcd) but also as an Open Defecation Free (ODF) Plus Model village, showcasing the potential of sustainable water and sanitation management in rural India and is a perfect example of Swachh Sujal Gaon.

Like many hilltop villages in Mizoram, Sailam historically faced severe water shortages. The village relied on distant spring sources (*Tuikhurs*) but did not meet the growing water demand as the yield was insufficient. Additionally, the water flow from these *Tuikhurs* varied greatly with changing seasons, making them unreliable as a long-term water source.

Figure 2: Solar powered pumps | Source: PHED Mizoram

The Turning Point: Jal Jeevan Mission and Solar-Powered Water Supply

In 2018, Sailam's water infrastructure received a significant upgrade through funding from the NABARD Rural Infrastructure Development Fund (RIDF). Under this initiative, solar-powered pumps were installed, and two large storage tanks with a combined capacity of 900,000 liters were constructed to draw water from the Lengleh Stream. These solar-powered pumps were implemented to reduce ongoing energy costs and ensure a reliable water supply for the village, distributing water through gravity-fed pipelines.

Before the implementation of the Jal Jeevan Mission (JJM), Sailam relied primarily on public stand posts and communal water access points. But the village's water supply system was transformed to ensure compliance with JJM standards *viz.* construction of the intake, conveyance mains resulting in providing required quantity of water, and a water treatment plant which is the key components of transformation of Sailam. The feeding mains were strengthened, the distribution network was expanded, and Functional Household Tap Connections (FHTC) were provided to 164 households.

This comprehensive infrastructure upgrade ensured that every household in Sailam received a continuous and reliable water supply, a critical milestone for quenching the water woes made possible by JJM funding.

To ensure last mile connectivity and that no one is left out, the Water and Sanitation (WATSAN) Committee ensures tap water connections to newly added households. Today, all 179 households in Sailam, are benefitting from individual tap water connections, marking the village's complete transition to a 24x7 water-sufficient community. Sailam got saturated in 2020 and it is certified as **Har Ghar Jal village**, by the community.

Community Ownership and the Role of the WATSAN Committee

A key factor in Sailam's success is the community's ownership of the water supply system. In 2020, the village officially handed over operation and management responsibilities to the WATSAN Committee, comprising members from the Village Council, Young Mizo Association, and local organizations.

The committee assumed full responsibility for managing the system, including operation, maintenance, and finances. To ensure transparency and efficiency, they established a streamlined system for water distribution and billing. Each household received a metered water connection, with charges of Rs. 0.04 per liter.

Public water points were installed throughout the village, and surplus water was sold at Rs. 150 per kiloliter, generating additional revenue. The committee's prudent management resulted in significant financial gains, with monthly operating costs of Rs. 8,000 outweighed by water charges of Rs. 35,000.

As of July 2024, the WATSAN Committee's bank balance stood at Rs. 5,06,894, ensuring long-term financial stability. To maintain accountability, the committee keeps meticulous records, including:

- Source Discharge Register (updated monthly)
- Complaint Register (for tracking issues and responses)
- Consumer List with Water Consumption and Bill Calculation

- Cash Book
- Bank Account Passbook
- Operation & Maintenance Register

These records enable the committee to track performance, address issues promptly, and make informed decisions.

Environmental Protection: A model for environmental Stewardship

Beyond its technical success, Sailam's water supply system exemplifies community-driven environmental protection. Recognizing the importance of preserving its water sources, the villagers proactively safeguarded the 30-acre forested catchment area surrounding the *Lengleh* Stream.

This densely forested zone is crucial for maintaining water quality and quantity. Community have voluntarily protected the forest, preventing deforestation, soil erosion, and pollution. Contour trenches and recharge pits have been constructed to enhance groundwater recharge and natural filtration.

Through regular maintenance, the community ensures the catchment area remains pristine, preserving the ecosystem for future generations. This community-led approach not only secures the village's water supply but also supports biodiversity conservation. The thick forest cover regulates the local climate and provides a habitat for diverse flora and fauna, contributing to the region's overall ecological health.

Figure 3: Water Quality Testing using FTK | Source: PHED Mizoram

By preserving the catchment area, Sailam has demonstrated its commitment to environmental sustainability. The village's proactive measures have created a thriving ecosystem, safeguarding its water sources while promoting regional biodiversity.

Ensuring Water Quality and Fostering Community Engagement

For Sailam, maintaining pristine water quality is paramount. To achieve this, the WATSAN Committee collaborates with the Public Health Engineering Department (PHED) to conduct regular water testing using Field Test Kits (FTKs). This proactive approach enables prompt detection and resolution of potential issues, safeguarding the community's health.

To promote water stewardship, the committee organizes public awareness campaigns during Gram Sabha meetings and local gatherings. These initiatives emphasize the critical importance of water conservation and sanitation, empowering villagers to take ownership of their water sources. By engaging the community in water management, Sailam fosters a collective sense of responsibility, ensuring the long-term sustainability of its water system.

ODF Plus Model and Sanitation Management

Sailam has achieved remarkable sanitation milestones. The village was awarded the Nirmal Gram Puraskar in 2012 for its exemplary sanitation efforts and `Best WATSAN Committee Award' in 2019. It has achieved the Open Defecation Free (ODF) Plus Model status in 2023.

To sustain sanitation facilities, every household contributes Rs. 50 monthly, demonstrating community commitment to hygiene. A robust

Figure 4: Cleaning drives | Source: PHED Mizoram

waste management system is also in place. Through a Public-Private Partnership (PPP) model with 23 neighboring villages, dry waste is efficiently segregated.

Private and community compost pits ensure proper waste disposal, supporting environmental cleanliness and Sailam's sustainable development goals. As part of the Swachhata Hi Seva (SHS) campaign, the WATSAN Committee organized regular public space clean-up drives, emphasizing household and communal cleanliness.

Diligent participants received tokens of appreciation, fostering community dedication to maintaining a clean and healthy environment.

Sailam: A Beacon of Sustainable Development Sailam's remarkable transformation from water scarcity to 24x7 water supply showcases the transformative power of community-driven development. This rural village's success story demonstrates how collective action, sustainable practices, and supportive government programs can overcome complex challenges.

Sailam's integrated approach to water management, environmental conservation, and sanitation has dramatically improved residents' quality of life, serving as a model for villages across Mizoram and India. The village's journey to becoming a 24x7 water-sufficient and sustainable community exemplifies the strength of community empowerment.

The combined efforts of the Jal Jeevan Mission, Swachh Bharat Mission, and the dedicated WATSAN Committee have secured Sailam's water future and laid the groundwork for long-term sanitation and sustainable development. Sailam stands as a shining example of community-led progress.

Figure 5: Tap water supply in School | Source: PHED Mizoram

Transforming Lives in Bardand Village Under JJM & SBM-G

- **Shri Pramod Singh Katlam,** Superintending Engineer PHED Circle Ambikapur Chhattisgarh;
Shri Sachin Ojha, Research Associate JJM, UNICEF (WCEE); **Shri Jasan Toppo,** Village Bardand

Bardand village in Jashpur district has emerged as a shining example of cleanliness and development. Under the **Swachh Sujal Gaon** initiative, Bardand has not only achieved **'ODF-Plus'** (Open Defecation Free Plus) but also **'Har Ghar Jal Certified'** under Jal Jeevan Mission. Bardand's journey offers a shining example of how concerted community effort, leadership, and innovative practices can transform rural areas into models of cleanliness, sustainability, and active participation.

Today every household in Bardand has access to safe sanitation and all are using toilets. Add on to these, special efforts have been made to maintain the cleanliness of public spaces. This has earned Bardand the prestigious 'ODF-Plus' certification, while transforming the village into a cleaner, healthier environment.

With the joint efforts of village leaders and local authorities, an effective Solid and Liquid Waste Management (SLWM) system has been implemented. Organic waste is being composted and used for agriculture, while plastic and other non-biodegradable waste are being disposed of scientifically, reducing environmental pollution.

Figure 6: OHT Under JJM | Source: Ambikapur Circle PHED Chhattisgarh

Access to Clean Drinking Water is another major achievement for Bardand. A new water supply system has been installed, ensuring safe and reliable drinking water for all households. Regular monitoring of the water system ensures that the quality of the water remains high.

The village's transformation is not just limited to infrastructure but also focuses on behavioral change. Awareness programs, led by women's self-help groups (SHGs) and schoolchildren, have played a key role in promoting cleanliness and hygiene. These efforts have fostered a deep sense of responsibility towards personal and community hygiene among the villagers.

Bardand's journey to becoming a model village was not without its difficulties. Limited financial and technical resources initially posed significant challenges, especially in installing a comprehensive water supply system and establishing a sustainable waste management structure. Additionally, ingrained habits and resistance to new practices, such as using toilets or separating waste for recycling, created roadblocks.

Figer 7: HGJ certification village Bardand | Source: Ambikapur Circle PHED Chhattisgarh

However, these challenges were met with innovative solutions. Local committees, village heads, and women's groups played pivotal roles in educating the community and offering practical solutions. Awareness campaigns focused on the long-term health and economic benefits of improved sanitation and hygiene practices, gradually helping to overcome resistance.

Additionally, through government support and assistance from external partners like UNICEF, which provided technical expertise under its WASH program, Bardand was able to secure the resources and knowledge necessary for sustained success. These collaborative efforts helped the village achieve not just ODF-Plus status, but a holistic transformation across multiple dimensions of development.

The key to Bardand's success has been active community participation. Local committees, women's groups, and youth clubs took an active part in the campaign, leading to not only an improvement in the village's sanitation system but also a rise in awareness about cleanliness.

The village faced several challenges along the way. Limited resources and resistance to changing long-standing habits posed initial hurdles, but with the collective efforts of the villagers and the determined support of local officials, these obstacles were overcome.

Bardand is now taking steps to sustain its success. Plans are in place to further improvisation of sustainable waste management systems and promote the use of compost in agriculture. The village also intends to mentor nearby villages, helping them to follow a similar path toward cleanliness and development. Bardand village serves as a model for what can be achieved when there is strong community involvement, support from local authorities, and a commitment to sustainability. From sanitation and waste management to clean drinking water and behavioral change, Bardand's transformation offers valuable lessons for other villages striving to achieve similar goals under the Swachh Sujal Gaon initiative. Through perseverance, innovation, and collective effort, Bardand has not only improved the quality of life for its residents but has also set a path for others to follow.

Figure 8: Happy beneficiary having household tap connection
Source: Ambikapur Circle PHED Chhattisgarh

Kodar: A Swachh Sujal Gaon through Community Power

- **JJM Chhattisgarh, Parmeswaran & Lopamudra Panda,** PMU-PMCB, NJJM

Chhattisgarh, a tribal populate state in central India, has become a beacon of progress by focusing on making the initiative of Swachh Sujal Gaon (Clean Drinking Water and Sanitation Villages) a success. Supported by Jal Jeevan Mission (JJM) and Swachh Bharat Mission Grameen (SBM-G), the state rural water supply and rural sanitation departments aims to significantly enhance the quality of life in rural inhabitants by ensuring access to clean drinking water and promoting better sanitation practices. The initiative reflects the government's commitment to improve lives in rural areas by ensuring access to potable water and sanitation practices and making every village a Swachh Sujal Gaon.

Driven by a combination of governmental efforts, community involvement, and the innovative use of technology the state government has prioritized the construction and use of individual household toilets in villages, ensuring that *'No One is Left Behind.'* It has also focused on solid and liquid waste management and connecting rural households with tap connections. Improved access to clean water and sanitation not only contributes to better health outcomes but also positively impacts educational attendance, particularly among girls who often face challenges due to inadequate WaSH facilities.

Figure 9: The women in blue, members of Jay Bhole Mahila Samooh ready for scheduled village cleaning | Source: PHED Chhattisgarh

Rukamini Hatle Leading The Change

In Kodar village, located in Rengakharkhurd gram-panchayat of Kawardha Kabeerdham district, one individual has emerged as a champion of this transformative effort. **Smt. Rukamini Hatle**, the Member Secretary of the Jay Bhole Mahila Samooh (a women's self-help group), led the movement for water, sanitation, and hygiene improvements in her village, prioritizing the needs of women and ensuring their safety and health.

Her journey was not without challenges. In one of the initial meetings, a group of villagers expressed frustration over the delay in getting clean water connections. ***"I couldn't watch them suffer anymore, women and girls of my village has to walk several kilometers to fetch water from a stream, we have no choice. Lack of water in toilets also was an added burden. Even the village has piles of solid waste and stagnant wastewater. Once I attended a training at block office and got to know about government initiatives. That day, I knew I had to come forward and work for my village and my sisters."***

Rukmini engaged the village community, particularly women, in her mission. She organized fortnightly meetings to address pressing issues related to water logging, wastewater

management, garbage accumulation in public spaces, and the lack of safe drinking water. These concerns were raised in the Gram Sabha, where the Sarpanch and officials from SBM-G and JJM were present. In this village'stransformative journey, Sarpanch Shri Vijay Kumar Bajkar stands as her main pillar of support.

Rukamini's dedication to improving water and sanitation in Kodar has been remarkable. Together with her fellow SHG members and other community members, she worked closely with SBM-G and JJM teams to develop crucial infrastructure such as soak pits, a garbage collection center, an overhead water tank, and a pump house cum chlorination room. These efforts have laid the foundation for sustainable water and sanitation facilities in the village.

The Key to Success in Kodar - Community Engagement

The success of the Swachh Sujal Gaon initiative in Kodar is largely due to the active participation of the community, especially women's groups like the Jay Bhole Mahila Samooh. Local leaders, including the sarpanch, played a key role in mobilizing support and educating villagers about the importance of sanitation and hygiene. Smt. Hatle and her SHG team conducted regular group meetings, chaupals, and interpersonal communication efforts to create awareness about safe sanitation practices, water conservation, rainwater harvesting, greywater management, solid waste disposal, water quality testing, and the judicious use of safe water.

These ongoing community-driven efforts fostered a sense of ownership among the villagers, ensuring that the infrastructure built through the program would be maintained for the long term. The initiative also encouraged the community to actively participate in the Operation & Maintenance (O&M) of water and sanitation systems by regularly contributing to the Village Water & Sanitation Committee (VWSC).

On 28 August 2024, the Gram Sabha of Kodar passed a resolution declaring the village certified as Har Ghar Jal (HGJ) and ODF-Plus (Open Defecation Free). Kodar was officially recognized as a Swachh Sujal Gaon, a testament to the power of community action and good governance.

A Model for Rural Development

The story of Kodar's transformation towards Swachh Sujal Gaon is an inspiring example of how community involvement, supported by effective governance and technological innovation, can drive sustainable development in rural areas. This initiative has not only improved sanitation and water quality but has also laid the groundwork for healthier, more prosperous communities across Chhattisgarh.

As Chhattisgarh continues on its path toward comprehensive rural development, the Swachh Sujal Gaon initiative stands as a model for other states aiming to replicate its success. The state's commitment to building a future where every village has access to clean drinking water and proper sanitation is evident in the strides it has made, and the leadership shown by individuals like Rukamini Hatle is a testament to the power of grassroots activism in creating lasting change.

Figure 10: Women driving the Waste collection in Kodar village | Source: PHED Chhattisgarh

The Transformational Journey of Namsang Village Toward Becoming a 'Swachh Sujal Gaon'

- **Khonsa PHE & WS Division,** Arunachal Pradesh

Nestled in the scenic Tirap district of Arunachal Pradesh, Namsang is a village steeped in history and tradition. Known as one of the region's oldest settlements, Namsang's significance stretches beyond its present-day community, reaching back to a time when it played a key role in the interactions between the Nocte tribes and neighboring powers. Today, Namsang's legacy continues, with its name gracing one of the blocks in Tirap district.

Namsang, home to 458 residents spread across 106 households, is predominantly inhabited by the **Nocte tribal community**. While deeply rooted in tradition, Namsang is also a shining example of how progressive government initiatives, like the Swachh Bharat Mission Grameen (SBM-G) and the Jal Jeevan Mission (JJM), can transform a rural landscape into a bonfire of sustainable development and community health.

Namsang's journey towards becoming a 'Swachh Sujal Gaon' began with the implementation of SBM-G. Prior to the intervention, the village struggled with poor sanitation and waste management practices, both of which posed serious health risks. Open defecation was common, and waste—both liquid and solid—was often disposed of haphazardly, leading to environmental degradation and contamination of water sources. These issues, while widespread in rural India, are particularly challenging in remote areas like Tirap, where geographical isolation makes access to public services difficult.

Figure 11: Solid Waste collection shed | Source: Khonsa PHE & WS Division, Arunachal Pradesh

Through SBM-G, each household in Namsang was provided with Individual Household Latrines (IHHLs), completely eliminating open defecation in the village. This marked a significant shift in community behavior and attitude towards sanitation. More importantly, it empowered the villagers with the means to improve their own living conditions. The construction of IHHLs was only the beginning. Namsang soon adopted a structured approach to waste management, addressing both solid and liquid waste effectively.

Most household waste is now managed at the source, with families taking responsibility for segregating and disposing of their garbage. Any waste that accumulates at the village level is handled by the Village Water and Sanitation Committee (VWSC) and Self-Help Groups (SHGs), who oversee proper waste disposal and recycling. The VWSC plays a crucial role in maintaining the cleanliness and hygiene of the village, while SHGs provide an opportunity for women to engage in community-building activities and earn livelihoods through sustainable practices.

Through these collective efforts, Namsang has transformed into a village that not only prioritizes sanitation but has also embraced the broader goals of SBM-G — achieving cleanliness, improving health outcomes, and fostering a sense of dignity among its residents.

While Namsang's sanitation issues were addressed through SBM-G, the village continued to face significant challenges with its water supply.

Access to potable water was a persistent problem. The village's water sources were unreliable, especially during the monsoon and lean seasons. Residents often had to travel long distances to fetch water from a nearby creek, an arduous task that was not only time-consuming but also dangerous. The journey exposed villagers to the risks of wildlife encounters, including snakes and elephants, further exacerbating the difficulties they faced in securing daily water needs.

For Namsang, the arrival of Jal Jeevan Mission (JJM) was a game-changer. JJM aims to provide household tap connections to every rural household in India, ensuring that people have access to clean and safe drinking water. In Namsang, JJM addressed the village's pressing water issues by installing tap connections in every home. Today, every household in Namsang has a reliable water supply, with clean water available at their premises through tap connections.

The impact of JJM on the lives of Namsang's residents cannot be overstated. Having access to potable water within their homes has improved health outcomes, reduced the burden on women and children who were previously responsible for fetching water, and enhanced the overall quality of life in the village. Moreover, the consistent availability of water has supported the village's cleanliness efforts, allowing residents to maintain personal and environmental hygiene. While SBM-G and JJM have been instrumental in transforming Namsang into a 'Swachh Sujal Gaon,' the village's success story would not be complete without recognizing the critical role played by the local community. The sustainable implementation of these programs requires active involvement from the people they are meant to benefit, and in Namsang, this has been a key factor in their success.

The Panchayati Raj Institutions (PRI), VWSC, SHGs, and the community at large have taken collective ownership of maintaining the gains achieved through these initiatives. For example, to ensure the long-term sustainability of the water supply system, the village has instituted a monthly household contribution of ₹20. This community-led fund is used for the upkeep and maintenance of the water infrastructure, ensuring that repairs and issues are addressed promptly without waiting for external assistance.

Additionally, four individuals from the village have undergone skill development training, provided by the Public Health Engineering Department (PHED). These individuals are now equipped to manage and maintain the water supply system and related infrastructure, creating local employment opportunities while also ensuring the sustainability of the water system. This skill development initiative has fostered a sense of pride and responsibility among the villagers, further embedding the values of self-reliance and collective ownership.

Namsang's transformation from a village grappling with poor sanitation and water scarcity to a model 'Swachh Sujal Gaon' offers valuable lessons for other rural communities across India. The village's success underscores the importance of comprehensive interventions that address not just one aspect of development but the broader ecosystem of health, hygiene, and livelihood.

Namsang's success highlights the power of community involvement. The village's commitment to maintaining its cleanliness and water supply through collective efforts is a testament to the fact that sustainable development is not solely the responsibility of the government but a shared goal that requires active participation from all stakeholders. The journey of Namsang village towards a 'Swachh Sujal Gaon' is a story of resilience, community spirit, and the transformative power of government programs like SBM-G and JJM. Through their collective efforts, the villagers of Namsang have created a healthier, cleaner, and more sustainable environment for themselves and future generations. As more villages across India follow in Namsang's footsteps, the dream of a Swachh and Sujal Bharat moves closer to reality.

Figure 12: Har Ghar Jal Certification in Gram sabha | Source: Khonsa PHE & WS Division Arunachal Pradesh

A New Dawn for Gori Village through the Power of Collective Action

- **Basar PHE & WS Division,** Arunachal Pradesh

Gori village, located in the Leparada district of Arunachal Pradesh, may appear tranquil at first glance, nestled amidst picturesque green mountains. However, for decades, the villagers faced a constant struggle that threatened their well-being — access to clean, treated drinking water. Despite being only 1.2 kilometers from the district headquarters in Basar, Gori's 46 households, home to 250 residents, endured a daily challenge of trekking long distances to fetch water from distant streams. This arduous and time-consuming task often compromised their health and productivity, leaving little time for education, economic activities, or household work.

The turning point for Gori village came in 2019 with the launch of the Jal Jeevan Mission (JJM), a nationwide initiative aimed at providing functional tap water connections to every rural household in India. In Gori, the impact of JJM has been nothing short of transformative. Recognizing the urgent need for a sustainable water solution, the village organized several Gram Sabhas to discuss the community's water crisis. These meetings led to the formation of a Village Water and Sanitation Committee (VWSC), a body tasked with overseeing the implementation of JJM.

Once the VWSC was in place, the community worked together to create a Village Action Plan (VAP), which was submitted to the Public Health Engineering Department (PHED), Basar Division. The plan outlined the steps necessary to ensure that every household in Gori would benefit from the initiative, marking the beginning of a journey that would change the village forever.

Figure 13: Gram Sabha meeting | Source: Basar PHE & WS Division, Arunachal Pradesh

The implementation of JJM in Gori was far from easy. Despite the village's proximity to Basar, the region's challenging topography and the distance to a sustainable water source posed significant hurdles. After weeks of extensive surveys, conducted by a team of local villagers and officials from the PHED, a reliable perennial water source was finally located – 7 kilometers away from Gori.

The next challenge was constructing the infrastructure to bring water from this source to every household in the village. Skilled workers from the local community were trained to assist with the project, ensuring that the knowledge and skills required for future maintenance would remain within the village. By empowering local workers, the villagers took ownership of the project, fostering a deep sense of responsibility and self-reliance.

Months of hard work and collaboration finally paid off. Despite the many obstacles - rugged terrain, weather conditions, and the sheer distance to the water source - every household in Gori was connected to a functional tap water supply. The transformation was nothing short of remarkable. Villagers no longer had to trek long distances to collect water; instead, they could access clean, treated drinking water with the simple turn of a tap.

Figure 14: Laying of pipelines in hilly terrains
Source: Basar PHE & WS Division, Arunachal Pradesh

The arrival of JJM in Gori has had profound and far-reaching effects on the lives of its residents. The time once spent on collecting water can now be used for more productive activities, such as education, household tasks, and economic pursuits. Children, freed from the daily task of water collection, have more time to focus on their studies, while women have more opportunities to contribute to the family's income or take on other responsibilities.

Moreover, access to clean drinking water has dramatically improved health and hygiene in the village. The risk of waterborne diseases has significantly decreased, leading to fewer illnesses and better overall well-being. The community's enhanced understanding of hygiene has also resulted in cleaner living environments, further contributing to the improved health outcomes in Gori.

From the very beginning, community engagement has been at the heart of Gori's success story. The villagers actively participated in every step of the process, from voicing their concerns during Gram Sabhas to assisting in the construction of the water supply system. This grassroots involvement was crucial in ensuring that the solutions implemented were tailored to the village's specific needs.

Figure 15: Water supply infrastructures
Source: Basar PHE & WS Division, Arunachal Pradesh

After the water supply system was commissioned in 2024, the in-village water supply component was handed over to the VWSC. To ensure the long-term sustainability of the system, a Gram Sabha was held, during which the villagers agreed to set a **nominal water tariff of ₹20 per household**. The revenue collected is managed through a joint account, with a portion allocated for the operation and maintenance (O&M) of the system. This transparent and community-driven approach has created a sustainable model that ensures the continued availability of clean drinking water in Gori.

The women of Gori village have also played a critical role in the sustainability of the water supply system. Trained in water quality testing, they regularly collect samples and submit quarterly reports to the divisional water testing laboratory in Basar, PHED & WS Division. Their active involvement not only empowers them but also ensures that the water remains safe for consumption.

In addition to the success of JJM, Gori has made significant strides in sanitation under the Swachh Bharat Mission Grameen (SBM-G). The village has adopted best practices for cleanliness and hygiene, with every household constructing individual toilets and actively participating in maintaining a clean environment. These efforts have fostered a culture of health and hygiene that permeates every aspect of life in Gori.

In recognition of these achievements, **Gori village was awarded the Cleanest Village Award by the Chief Minister of Arunachal Pradesh in 2023.** This prestigious award

Figure 16: Water supply system
Source: Basar PHE & WS Division, Arunachal Pradesh

highlights the village's commitment to sanitation and its role as a leader in rural hygiene practices. Gori's status as an **aspiring model village** under SBM-G further cements its position as a guiding light of progress and development.

The success of JJM and SBM-G in Gori stands as a testament to the power of community involvement, innovative engineering, and government support. The village, once burdened by the daily struggle for water, now thrives with sustainable access to drinking water and improved sanitation. Gori's journey serves as a powerful example of what can be achieved when communities work together with a shared vision for a better future.

Surrounding communities, inspired by Gori's transformation, are now looking to replicate its success. The village's story has ignited hope and ambition among neighboring villages, proving that even the most remote and challenging areas can overcome obstacles with determination and collaboration.

Gori village's remarkable transformation under the Jal Jeevan Mission and Swachh Bharat Mission is a shining example of how government initiatives, combined with strong community participation, can bring about lasting change. The village has not only secured a sustainable future for its residents but has also set a powerful precedent for other rural communities in India.

As Gori continues to thrive, it stands as a beacon of hope and progress, demonstrating that with the right support, even the most isolated villages can achieve significant advancements in health, sanitation, and overall quality of life. The success of JJM and SBM-G in Gori has not only transformed the landscape of the village but has also inspired a movement of change, ensuring that no community is left behind in the pursuit of development.

Figure 17: An elderly with household tap | Source: PHED Basar Division, Arunachal Pradesh

Harka Maya's Journey towards Dignity and Convenience

- SiMTEI Educational Society, Manish Kumar & Lopamudra Panda NJJM

In the tranquil village of Detthang, tucked away in the Kaluk Block of Sikkim, life was once a constant struggle for 74-year-old Harka Maya Subba. A strong-willed and independent woman, Harka Maya began her day long before sunrise, preparing for the challenges that lay ahead. Her daily routine was not just about sustaining her family but battling the elements and her aging body.

For years, she and her husband managed their household chores, including the strenuous task of collecting water. Every day, Harka Maya walked to a nearby stream, balancing pots of water on her head and arm—an arduous and time-consuming routine. Rain or shine, her responsibilities did not relent, and with each passing year, the task grew

Figure 18: Harka Maya with her household tap connection
Source: SiMTEI Educational Society

Harka Maya recalls

"I used to worry about what would happen to us when we could no longer fetch water. What if a snake or some other creature bit one of us in the dark while we relieved ourselves outside? These thoughts haunted me."

more difficult. Still, she pressed on, finding a way to support her family, primarily by tending to her vegetable garden and selling the produce on the highway—the only source of income of this old couple.

Yet, there was another daily challenge – sanitation. Like many in her village, Harka Maya had no choice but to use makeshift latrines in the open, a practice that posed risks, especially after dark. The lack of proper sanitation not only affected hygiene but also created concerns about safety, particularly with the presence of wildlife in the surrounding areas.

However, change was on the horizon, brought by two pivotal government initiatives: the Swachh Bharat Mission Grameen (SBM-G) and the Jal Jeevan Mission (JJM). Under SBM-G, Harka Maya received ₹12,000 to construct a household latrine. This marked the beginning of a significant shift in her life, as she and her husband no longer needed to walk long distances for open defecation. But there remained another hurdle; the water required for sanitation. This has added to her burden of fetching water.

The real transformation came with the arrival of a piped water connection to her home, courtesy Jal Jeevan Mission. This flagship initiative, launched by the Government of India, aims to provide safe and adequate drinking water through individual household taps to all rural households in India. For Harka Maya, the impact was immediate and profound.

The introduction of tap water in her home did more than just alleviate the burden of carrying water. It symbolized newfound dignity and convenience. Harka Maya and her husband no longer had to endure the physical toll of fetching water from distant sources, and the risk of sanitation-related health issues was significantly reduced. The village of Detthang, now declared both Open Defecation Free (ODF) and a Har Ghar Jal-certified village, stands as a testament to the progress brought by these missions.

These initiatives have not only improved water security but have also contributed to better health and hygiene, particularly in rural areas where such infrastructure was previously lacking. For Harka Maya and countless others like her, the benefits of these programs extend beyond physical comfort—they represent a shift toward empowerment and sustainability in rural India.

But the story doesn't end with Harka Maya. The entire village of Detthang has embraced the principles of cleanliness and waste management, fully understanding the significance of sanitation in their day-to-day lives. The community's collective effort ensures that the progress made under the Swachh Bharat Mission and Jal Jeevan Mission is sustained, benefiting future generations.

Today, the transformation in Detthang is palpable. As water flows through the taps of each household, it brings with it more than just convenience. It brings hope, security, and a new lease on life for the village's elderly, children, and families. They no longer live with the anxiety of water scarcity or the health risks of poor sanitation. Instead, they look forward to a future where basic needs are met, dignity is restored, and their quality of life continues to improve.

> “For Harka Maya, the simplicity of turning on a tap is nothing short of a miracle. ***“I feel like God has listened to our prayers and made life easier for us,”*** she says with a chuckle, her relief and gratitude evident in every word.

Figure 19: Tap water flowing in IHHL of Harka Maya | Source: SiMTEI Educational Society

Her story is just one of many. Across the length and breadth of India, countless families are experiencing similar transformations, their lives forever changed by the efforts to bring water and sanitation to every rural household. While challenges remain, the success of programs like the Jal Jeevan Mission and Swachh Bharat Mission has sparked hope and brought tangible improvements to rural communities—one tap, one toilet, and one village at a time.

As India marches toward achieving its Sustainable Development Goals, particularly SDG 6, which focuses on clean water and sanitation for all, stories like Harka Maya's serve as a reminder of the transformative power of these initiatives. They show us that, with determination and the right resources, even the most remote villages can experience progress and development, ensuring a brighter and healthier future for all.

Transformation of Swachh Sujal Gaon Kaimoi as a Model

- Longding PHE & WS Division, Lopamudra Panda, NJJM

Nestled in the picturesque yet remote Longding district of Arunachal Pradesh, Kaimoi village is a testament to the power of grassroots development and community-driven change. With a population of 749, the village had historically struggled with low literacy rates and poor sanitation conditions. However, with the focused intervention of key government initiatives, Kaimoi has risen to become a symbol of transformation under the Swachh Bharat Mission-Gramin (SBM-G) and Jal Jeevan Mission (JJM). Its journey is a beacon of hope for villages across India striving to achieve the goals of cleanliness, hygiene, and access to safe drinking water.

Figure 20: Kaimoi village the arrear view
Source: Longding PHE & WS Division, Arunachal Pradesh

According to the Census 2011 data, Kaimoi village, situated in the Wakka circle, is located 33 kilometers from the sub-district headquarters of Wakka and 49 kilometers from the district headquarters of Longding. It is also a Gram Panchayat with 127 houses. The village's total population of 749 is divided into 414 males and 335 females, with a literacy rate of only 24.43%. Male literacy stands at 30.92%, while female literacy is significantly lower at 16.42%. These figures indicate the socio-economic challenges faced by the village prior to the implementation of government programs aimed at improving living standards.

Like many rural areas in India, Kaimoi's lifestyle was marked by unhygienic conditions. Animals roamed freely, contributing to an environment that was far from sanitary. The primary sources of livelihood for the villagers were agriculture and small-scale farming, but the lack of proper sanitation and water infrastructure limited both health and productivity. Additionally, access to basic amenities and services was hindered by the village's geographical isolation. Without significant government intervention, the village seemed stuck in a cycle of poverty, poor health, and limited opportunity.

The transformation of Kaimoi began with the introduction of two flagship government programs *viz.* SBM-G and JJM. The combination of these two initiatives focused on improving sanitation and ensuring access to clean drinking water, addresses two of the most critical issues faced by the village.

Under the SBM-G, individual household latrines (IHHLs) were constructed in multiple phases. During Phase I, 144 IHHLs were built, and an additional 17 were added in Phase II, totaling 161 latrines by the end of the project. The mission also emphasized the importance of behavioral change through Information, Education, and Communication (IEC) and Behaviour Change Communication (BCC) campaigns. These campaigns were instrumental in shifting the mindset of the villagers, helping them understand the link between hygiene, health, and well-being.

Table 1.0 (SBM-G)

IHHL (Phase I)	IHHL (Phase II)	Total (Phase I + Phase II)
144	17	161

Simultaneously, JJM brought a much-needed focus on water supply and management. The introduction of piped water and functional household tap connections (FHTCs) significantly improved the quality of life for Kaimoi's residents. By 2022-23, the village had achieved 100% FHTC coverage, ensuring that every household had access to clean drinking water. This milestone is particularly impressive considering that just a few years earlier at the time of implementation of JJM, the coverage was a mere 56.6%.

One of the most remarkable aspects of Kaimoi's transformation has been the active involvement of its residents in the process. From the beginning, the village development committee and the Village Water and Sanitation Committee played a crucial role in ensuring the successful implementation of SBM-G and JJM. These bodies worked alongside the traditional village leadership, known as the "Ngowang," to ensure that the initiatives met the specific needs of the community.

In addition to these committees, women's groups and youth organizations contributed to improving village sanitation and beautification efforts. Their hard work culminated in Kaimoi being recognized as the **cleanest village in Longding district in 2023**. The village's success didn't stop there; **in March 2024, it was awarded the "Most Active Village Water and Sanitation Committee" at the state level by the Chief Minister of Arunachal Pradesh during the Har Ghar Jal celebration.**

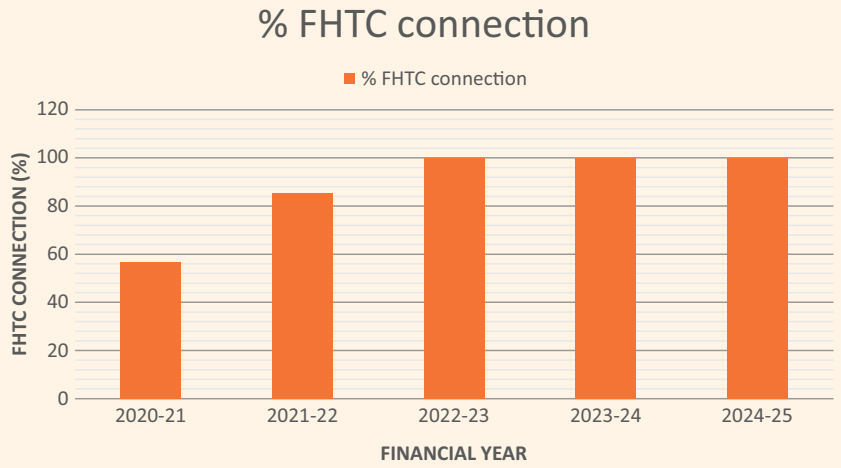
The future looks promising for Kaimoi. The village has not only improved its infrastructure but also its aspirations. Plans are already underway to develop Kaimoi as a tourism village, which would open up new economic opportunities for its residents. The beauty of the village, now enhanced by blooming flowers and well-maintained roads, coupled with its unique cultural heritage, makes it an ideal destination for tourists looking to experience the charm of rural Arunachal Pradesh.

The annual cleanest colony award, initiated by the local administration, will continue to foster a sense of competition and pride among villagers, encouraging them to maintain high standards of cleanliness and hygiene. Additionally, the focus on education and awareness will likely contribute to further improvements in literacy rates, especially among women. The village's success demonstrates the power of government initiatives when combined with active community participation and local leadership.

As India moves towards its goal of becoming an open-defecation-free and water-secure nation, the story of Kaimoi offers valuable lessons in resilience, collaboration, and the importance of behavioral change. It proves that even the most remote and underdeveloped areas can transform into models of cleanliness and sustainability with the right interventions.

Kaimoi village, once grappling with poor sanitation and limited access to clean water, has emerged as a shining example of what can be achieved through coordinated efforts between government programs and local communities. The journey from struggle to success in Kaimoi offers hope for countless other villages across India that are on the path to becoming Swachh Sujal Gaons — clean, water-secure, and thriving communities.

Table 1.1 (JJM)



A Remarkable Transformation of Mengi Kabak Through Jal Jeevan Mission and Swachh Bharat Mission Grameen

- **Raga PHE & WS Division,** Arunachal Pradesh

Tucked away in the remote district of Kamle in Arunachal Pradesh, the village of Mengi Kabak sits amidst lush green mountains, its serenity masking the daily hardships that the villagers have endured for decades. Situated 78 kilometers from the district headquarters of Raga, and perched at an elevation of 1,138 meters above sea level, Mengi Kabak is the last village in Kamle, bordering the Kra-Daadi district. With a modest population of 250 residents across 44 households, the village has long struggled with one critical issue: access to clean drinking water.

For years, the people of Mengi Kabak faced the daunting task of trekking great distances to fetch water from distant streams. This arduous daily chore consumed time, reduced productivity, and posed risks to health and safety. Water collection, typically a responsibility of women and children, became a heavy burden, cutting into time that could otherwise be spent on education, household tasks, or economic activities. The lack of a reliable, treated water source hampered not only daily life but also the overall development of the village.

The tide began to turn in 2019 with the launch of Jal Jeevan Mission (JJM), a nationwide initiative aimed at providing every rural household in India with a functional tap connection for clean drinking water. For Mengi Kabak, JJM offered a lifeline and the promise of a better future. Recognizing the urgency of the situation, multiple Gram Sabhas were organized at the village level. These meetings were crucial in fostering community involvement, leading to the formation of the Village Water and Sanitation Committee (VWSC). With the villagers united in purpose, a Village Action Plan was drawn up and submitted to the Public Health Engineering Department (PHED), Raga Division, ensuring that Mengi Kabak would benefit from JJM.

However, the road to implementation was anything but easy. Mengi Kabak's remote location and challenging topography presented significant logistical hurdles. Finding a sustainable water source in such a far-flung region was a formidable task. A team of villagers, alongside

Figure 21: Gram Sabha/ awareness campaign on both water (JJM) & sanitation (SBM -G)
Source: Raga PHE & WS Division, Arunachal Pradesh

officers and officials from PHED, conducted an extensive survey over several weeks, traversing rugged terrain to identify a reliable water source. After considerable effort, they discovered a perennial source, located 11 kilometers from the village.

The success of JJM in Mengi Kabak was a testament to the power of community involvement. Skilled workers from the local village were trained to assist in the construction of the water supply system. This included laying pipelines from the newly identified water source to the village, ensuring that both knowledge and skills remained within the community. By empowering local workers, the village ensured that future repairs and maintenance could be carried out without outside assistance, fostering a sense of self-reliance.

Despite the many challenges — rugged terrain, unpredictable weather, and the sheer distance to the water source — after months of hard work, Mengi Kabak was finally connected to a reliable water supply. Every household in the village now has access to tap water, marking a dramatic transformation. The simple act of turning on a tap, once unimaginable, has now become a daily reality for the villagers.

The impact of having access to clean drinking water cannot be overstated. It has not only improved the health and hygiene of the villagers but has also transformed their daily routines. The time once spent on fetching water is now directed towards more productive activities such as education and livelihood opportunities. Children, no longer burdened by the chore of collecting water, can focus on their studies. Women, too, have more time for household chores and income-generating activities, enhancing the overall economic prospects of the village.

Moreover, the availability of clean water has had a direct impact on the health of Mengi Kabak's residents. With the risk of waterborne diseases drastically reduced, villagers are experiencing fewer illnesses, improving overall well-being. The newfound access to potable water has also supported the community's sanitation efforts, particularly under the Swachh Bharat Mission Grameen (SBM-G).

Figure 22: Material transportation through rugged terrain
Source: Raga PHE & WS Division, Arunachal Pradesh Arunachal Pradesh

Mengi Kabak's commitment to cleanliness and hygiene goes hand-in-hand with its success under JJM. Through SBM-G, the village has achieved the status of a model village, setting an example for surrounding communities. The villagers have adopted best practices in sanitation, constructing individual household toilets and maintaining a high standard of cleanliness. The introduction of proper sanitation facilities has fostered a culture of hygiene, further improving health outcomes.

The village's collective efforts in sanitation are visible in every corner of Mengi Kabak. Clean pathways, well-maintained toilets, and waste management systems reflect the community's dedication to sustaining these improvements. SBM-G has not only improved physical infrastructure but has also instilled a sense of pride and ownership in the villagers. They now recognize the direct link between sanitation and health, and are committed to maintaining these gains for future generations.

One of the key factors behind the success of both JJM and SBM-G in Mengi Kabak is the strong foundation of community involvement. From the outset, villagers participated actively in Gram Sabhas, voicing their concerns and helping to shape the water and sanitation projects to suit their specific needs. This grassroots engagement has been instrumental in ensuring the long-term sustainability of these initiatives.

Following the commissioning of the water supply system in 2023, the responsibility for its maintenance was handed over to the VWSC. In a subsequent Gram Sabha, the villagers agreed to set a nominal water tariff of ₹ 30 per household, which would be used to fund the operation and maintenance (O&M) of the water supply system. A joint

Figure 23: water supply infrastructure | Source: Raga PHE & WS Division, Arunachal Pradesh

account was established to manage the collected revenue, ensuring transparency and accountability. This community-driven approach has created a model of self-sufficiency that other villages can learn from.

The women of Mengi Kabak also play an active role in ensuring the quality of the village's water supply. Trained in water quality testing, they collect samples and submit quarterly reports to the divisional water testing laboratory in Raga. Their involvement not only empowers them but also ensures that the village's water remains safe for consumption.

The success of Mengi Kabak has not gone unnoticed. Surrounding villages, inspired by Mengi Kabak's transformation, are now pursuing similar initiatives under JJM and SBM-G. The village has become a beacon of hope, demonstrating that with determination, collaboration, and community ownership, even the most remote areas can overcome the challenges of accessing clean water and sanitation.

Mengi Kabak's journey from a village struggling for basic necessities to a model 'Swachh Sujal Gaon' stands as a powerful example of how government programs like JJM and SBM-G) can bring about transformative change. The convergence of these initiatives has not only improved access to clean water and sanitation but has also enhanced the overall quality of life in the village. By engaging the community at every step and empowering them to take ownership of the solutions, Mengi Kabak has secured a sustainable future for its residents.

As other villages look to replicate this success, Mengi Kabak serves as a reminder that no challenge is insurmountable when communities come together with a shared vision for a better tomorrow. The village's remarkable transformation is proof that with the right support and community spirit, even the remotest corners of India can thrive.

Figure 24: water source cleaning drive | Source: Raga PHE & WS Division, Arunachal Pradesh

Swachh Sujal Gaon Kanikaniyan, Vellore a Best Example of Convergence

- **Lopamudra Panda & Parth Sarthi,** NJJM; Base information by **EE RD Vellore**

In India, the convergence of the Jal Jeevan Mission (JJM) and Swachh Bharat Mission (SBM-Gramin) represents a significant stride toward achieving holistic rural development. Both programs address vital needs: JJM focuses on providing safe and sustainable drinking water, while SBM-G ensures proper sanitation, which plays a crucial role in maintaining health and hygiene standards in rural communities. The case of Kanikaniyan Panchayat, situated in Kaniyambadi block of Vellore district, Tamil Nadu, offers a prime example of how these two flagship schemes are transforming lives.

With a population of 852 across 226 households, Kanikaniyan has agriculture as its mainstay. Prior to the implementation of the Jal Jeevan Mission, only 92 households had access to individual tap connections, while the rest of the village relied on street taps and shared water resources. The limited access to water not only posed a daily struggle for residents, especially women, but also restricted their quality of life.

Thanks to the effective coordination by the Village Water and Sanitation Committee (VWSC), all households in Kanikaniyan are now equipped with Functional Household Tap Connections (FHTCs) under JJM. The installation of two new bore wells has been crucial in addressing the village's water scarcity. Total 3 Over Head Tanks (OHTs) are constructed out of which 2 OHTs are of 10,000 ltr. capacity and one OHT is of 60,000 ltr. of capacity. Now, every household, as well as the Anganwadi center and Panchayat Union Elementary School, enjoys a steady supply of safe drinking water, ensuring improved health outcomes for the entire community.

Figure 25: Over Head Tank constructed under JJM | Source: RD Vellore

However, ensuring access to clean water is just one part of the equation. Effective wastewater management is equally crucial in sustaining water quality and preventing environmental degradation. Under SBM-G, the focus is not only on eliminating open defecation but also on managing wastewater and promoting groundwater recharge. In Kanikaniyan, the integration of sanitation with water supply has led to innovative wastewater management solutions.

Each household now has access to a safe sanitation system that channels wastewater into soak pits, which helps in the natural filtration of water and aids in recharging the groundwater table. This not only prevents the stagnation of wastewater—often a source of contamination—but also ensures that the village's water resources remain sustainable. Additionally, these soak pits reduce the risk of water-borne diseases, improving overall health and hygiene.

The synergy between JJM and SBM-G is evident in villages like Kanikaniyan, where both schemes work in tandem to create a sustainable ecosystem. While JJM ensures a reliable supply of potable water, SBM-G complements

Figure 26: Women with FHTCs | Source: RD Vellore

this by ensuring that the village has proper sanitation facilities, reducing the likelihood of water contamination. The convergence of these programs is pivotal in achieving the broader goals of Sustainable Development Goal 6 (SDG 6), which aims to ensure availability and sustainable management of water and sanitation for all.

In Kanikaniyan, the community-driven approach has been instrumental in the success of both programs. The VWSC's active participation not only in the planning but also in the implementation of these schemes has empowered the villagers to take ownership of their water and sanitation infrastructure. This has fostered a sense of responsibility, leading to better maintenance and sustainable usage of resources.

Despite the success in Kanikaniyan, challenges remain in ensuring that such models are replicated across the country. The maintenance of water supply systems and sanitation infrastructure, especially in rural areas, requires continuous engagement with the community and the government. Financial constraints, lack of technical expertise, and the need for regular monitoring are potential barriers that need to be addressed.

However, the lessons from Kanikaniyan provide a roadmap for how rural communities can effectively harness government programs to improve their quality of life. The integration of water supply with sanitation through soak pits and wastewater management systems not only addresses immediate needs but also contributes to long-term environmental sustainability.

The convergence of Jal Jeevan Mission and Swachh Bharat Mission in Kanikaniyan Panchayat demonstrates that comprehensive rural development is achievable when water and sanitation initiatives work hand in hand. By providing functional household tap connections and effective wastewater management, the village is not only safeguarding the health and dignity of its residents but also contributing to groundwater recharge, ensuring a sustainable water supply for generations to come. The success of such initiatives, driven by community involvement, paves the way for other rural areas to follow, bringing India closer to achieving SDG 6 and creating a healthier, more sustainable future for all.

Figure 27: FHTC with soak pit | Source: RD Vellore

Zokhawthar
A Swachh Sujal Gaon in Mizoram

- PHED Mizoram

Zokhawthar, a village located 29 km from Champhai district Mizoram with a population of 2,632 and 501 households (as per the 2011 census), had long faced challenges in accessing clean water. Its steep terrains and limited infrastructure created significant obstacles in securing a reliable water supply. The village is a Swachh Sujal Gaon, a perfect example of integrating two missions, Jal Jeevan Mission (JJM) and Swachh Bharat Mission-Gramin (SBM-G).

All households in Zokhawthar are provided with a sustainable and reliable source of clean water, ensuring 55 lpcd. through functional household tap connections and toilets. This improvement has greatly enhanced the community's health, hygiene, and overall well-being, supporting the goal of a Swachh Sujal Gaon where water supply and sanitation work in tandem.

Following the JJM's ethos, the VWSC is proactively collecting revenue towards user charges, the VWSC charges **₹150 per household for water supply** and **₹50 for sanitation**, amounting to **₹200 per household per month**. This fee covers both the maintenance of water services and sanitation needs, contributing to a cleaner, healthier environment, which is integral to the Swachh Sujal Gaon vision.

Inclusive Water Supply for Refugees: Recognizing the humanitarian needs of refugees in the region, the VWSC extended water services to Myanmar nationals who fled the conflict in Chin State and sought refuge in Zokhawthar. This inclusivity highlights the Swachh Sujal Gaon initiative's emphasis on ensuring access to water and sanitation for all, regardless of status.

Figure 28: Water supply system | Source: PHED Mizoram

The Public Health Engineering Department, in collaboration with local authorities, community leaders, and NGOs, initiated the gravity-based water supply scheme to utilize the natural terrain for water conveyance, eliminating the need for pumps. The project was designed to be environmentally friendly and cost-effective, aligning with the sustainability goals of Swachh Sujal Gaon. All households having functional tap water connections and toilets, significantly reducing the time spent towards fetching water and going out for defecation. This has resulted in improving daily life. With clean water readily available in households, schools and Anganwadi centres has added to hygiene practices. As a result, community health has improved, contributing to reduced disease spread and better overall well-being.

Villagers are educated on water conservation and proper sanitation practices during Gram Sabha meetings, reinforcing the Swachh Sujal Gaon principles of clean water and sanitation for all. In alignment with SBM-G's ODF Plus goals, the village has focused on maintaining open defecation-free status. Toilets and Community Sanitary Complexes were constructed in schools, Anganwadi centers, and community

Figure 29: Waste collection Truck | Source: PHED Mizoram

halls, ensuring accessibility for all users. Solid and liquid waste management is also emphasized, with a community soak pit and individual soak pits for proper liquid waste disposal. The VWSC manages solid waste collection via a sanitation truck, ensuring waste is properly disposed of at designated sites.

The VWSC's effective revenue management ensures long-term sustainability. With monthly operating costs averaging ₹70,000, and a revenue collection of approximately ₹ 2,00,000 as of September 2024, the committee maintains a bank balance of ₹12,00,000. This financial stability supports ongoing water and sanitation services, with funds allocated for maintenance, water distribution, and sanitation management. Revenue is also directed towards future initiatives, such as the extension of the T-cluster distribution network, procurement of a new sanitation vehicle, and construction of a new dumping ground to improve waste management capacity.

The implementation of JJM and SBM-G has not only modernized water and sanitation infrastructure but also revived traditional Mizo values like *hnatlâng*—the spirit of collective work. This ethic of mutual support and care for natural resources is central to the Swachh Sujal Gaon initiative, demonstrating how community participation leads to more effective resource management and sustainable development.

Figure 30: Sanitary complex with water facility | Source: PHED Mizoram

Swachh Sujal Gaon Buarpui's Success in Water Supply and Sanitation

- PHED Mizoram

Buarpui village, located in Lunglei District, Mizoram, stands as an inspiring example of how community-driven initiatives can create sustainable water supply and sanitation systems. With a population of 1,197 and 252 households (2011 census), Buarpui has embraced the Swachh Sujal Gaon vision with remarkable success, demonstrating how grassroots efforts can align with national goals such as Swachh Bharat and Jal Jeevan Missions.

A key feature of Buarpui's success has been the establishment of an efficient financial management system by the village's Water and Sanitation (WATSAN) Committee. To sustain the water supply, a progressive user charge system was introduced, where households pay according to their socio-economic status. Upper-class households contribute ₹250 per month, middle-class ₹100, and lower-class ₹50. This model not only ensures financial sustainability but also promotes a sense of ownership and equity within the community.

Located in a water-stressed region, Buarpui village faced significant challenges regarding water availability. To address this, the WATSAN Committee, led by its chairman, Pu. Zakhuma, implemented several measures, including rainwater harvesting, catchment area protection, and afforestation. Two check dams were constructed in the catchment area, one funded by the community's own water revenue savings and the other under the MGNREGA scheme. These initiatives have significantly improved water availability, especially during the monsoon season when the village receives around 80% of its annual 2,560 mm rainfall.

Buarpui has also focused on long-term environmental sustainability. The WATSAN Committee launched the Children's Eco-Club, which engages young villagers in environmental stewardship. Through tree plantation drives, awareness campaigns, and cleanliness initiatives, the children contribute to the protection of water sources and ensure future sustainability. Over 100 trees were planted in the catchment area, while NGOs like the YMA (Young

Figure 31: Activities by Student Eco Club | Source: PHED Mizoram

Mizo Association) planted an additional 800 trees.

Sanitation has been a cornerstone of Buarpui's progress. The village has adopted a comprehensive approach to waste management, ensuring proper disposal of biodegradable and non-biodegradable waste. Monthly contributions from households (₹20) enable the hiring of vehicles to collect waste weekly, which is then disposed of at two dumping sites strategically placed in the village. The construction of sanitation facilities, including toilets and community sanitary complexes in schools and public spaces, has helped Buarpui move closer to achieving the ODF (Open Defecation Free) Plus Model status.

What makes Buarpui's journey exemplary is the spirit of community participation. Regular meetings between the village council and representatives from local NGOs ensure that challenges are addressed collectively, and the community is engaged in cleanliness drives. Even waste bins, crafted from bamboo by local NGOs, reflect a commitment to sustainable practices.

Buarpui village's achievements reflect the power of collective action, sound financial management, and innovative approaches to water and sanitation challenges. It serves as a model for other rural communities striving to become Swachh Sujal Gaons, showcasing how the alignment of local efforts with national missions can lead to lasting transformation.

Figure 32: Activities by Student Eco Club | Source: PHED Mizoram

Figure 33: Dumping sites constructed by PHED and with XV Finance grant | Source: PHED Mizoram

Lallen Village: A Model in Water and Sanitation Management

- PHED Mizoram

Located in the western part of Mizoram, Lallen Village in Mamit District has emerged as a model of excellence in the operation and maintenance of water and sanitation systems. Situated 115 km from Aizawl and 57 km south of the district capital Mamit, the village's population, now around 950 people across 190 households, primarily depends on agriculture and horticulture for their livelihoods. The village is administered by the Lallen Village Council and falls within the W.Phaileng RD Block and the Dampa Legislative Assembly constituency.

A Community-Driven Success for water supply: Lallen's transformation began with the successful implementation of the Jal Jeevan Mission (JJM) in the 2020-21 fiscal year. The primary water source tapped under the JJM is Lungpher Lui, located within the Dampa Wildlife Sanctuary, ensuring the sustainability of the village's water supply. Currently, the source provides more than 75 liters per capita per day (lpcd) to the village.

The WATSAN Committee, responsible for the village's water and sanitation management, collects a monthly revenue of ₹150 per household. This revenue supports wages for the village's Water Chowkidar (₹6,000/month), regular cleaning of the pump house (₹4,000/fortnight), and the procurement of essential materials for the water distribution system. The main reservoir, located at the top of the village, holds 2 lakh liters and has been innovatively adapted to collect rainwater during the monsoon season. This solution addresses the reduced efficiency of the solar pump during cloudy weather, ensuring a steady water supply.

Further, the WATSAN Committee has invested in the infrastructure needed to maintain efficient water distribution. The committee procured a water pump set to deliver water from the Mawttlang source reservoir to the main reservoir and even purchased a welding machine for ₹1 lakh to address maintenance issues quickly. The village also contributes to recharging underground water sources by digging trenches under the MGNREGS scheme, enhancing water sustainability.

These efforts earned Lallen the second prize in **the "Preservation of Water Sources within Mamit District"** competition in 2022, a testament to the community's dedication to water conservation.

A Beacon of Cleanliness: The WATSAN Committee's work in improving Lallen's sanitation system has been equally impressive. The village won the second prize for the Cleanest Village in Mamit District, thanks to its comprehensive waste management system. Despite its small size, the village hires a vehicle

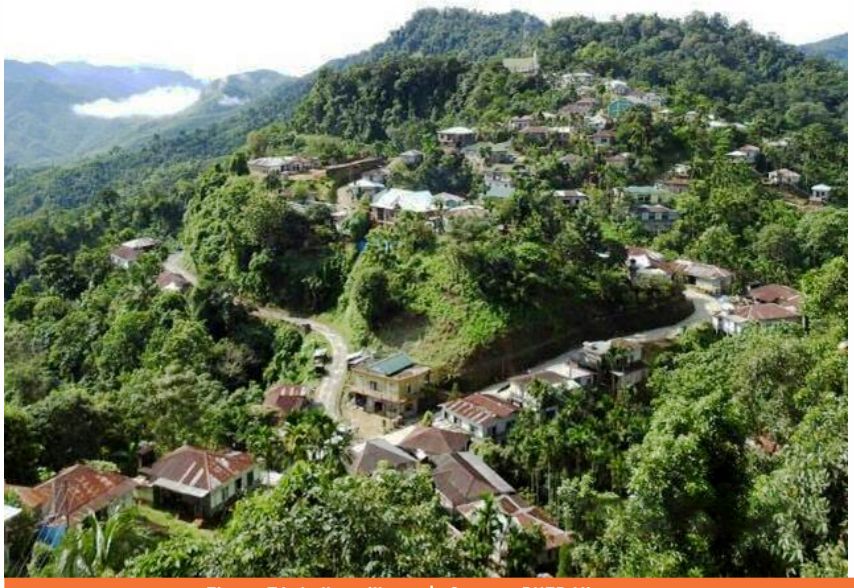


Figure 34: Lallen village | Source: PHED Mizoram

to collect garbage from households, with each family contributing ₹50 monthly for this service. Under the Swachh Bharat Mission (Gramin), grey water is directed into separate soak pits, and a well-maintained Community Sanitary Complex serves the village.

The committee has also been proactive in raising awareness about sanitation, organizing campaigns in schools and Anganwadi Centers. Additionally, it encourages individual responsibility for cleanliness through a quarterly prize system, where outstanding households are rewarded. In 2023, ₹15,000 was allocated exclusively for these prizes.

These sustained efforts have led to Lallen being the first village in Mamit District to achieve ODF Plus status, with the district itself leading Mizoram in ODF Plus declarations.

A Model of Governance and Sustainability: At the heart of Lallen's success is the WATSAN Committee's governance model, which involves monthly meetings to discuss water and sanitation issues. The committee maintains meticulous financial records, which are audited annually, ensuring transparency and accountability.

Through its well-coordinated efforts in water management, sanitation, and community participation, Lallen Village has become a shining example of what can be achieved when local governance aligns with national missions like the Jal Jeevan Mission and Swachh Bharat Mission. The village's journey offers valuable lessons in sustainability, innovation, and community-driven development.

Figure 35: Rainwater Harvesting Structure on top of Existing Main Reservoir | Source: PHED Mizoram

आदर्श स्वच्छ सुजल ग्राम पंचायत उत्तरसंडा

- मुबीना इरशाद शेख, जिला समन्वयक, खेड़ा वासमो एबं श्री इशित पटेल, सरपंच उत्तरसंडा ग्राम पंचायत

राष्ट्रपिता महात्मा गांधी ने कहा था कि इस देश की इमारत गांवों की नींव पर बनी है। इसलिए गांव स्वतंत्र होना चाहिए, गांव के लोग स्वतंत्र होने चाहिए। गांधी जी के नक्शे-कदम पर चलते हुए प्रधानमंत्री श्री नरेंद्र भाई मोदी ने स्मार्ट विलेज की संकल्पना बनाई है। 'स्मार्ट विलेज' की संकल्पना के तहत खेड़ा जिले का उत्तरसंडा गांव हाल ही में विकास के विभिन्न आयामों में ठोस प्रदर्शन करके एक 'स्मार्ट विलेज' बन गया है। खेड़ा जिले के दांडीमार्ग नडियाद-आनंद रोड पर नडियाद तहसील का उत्तरसंडा गांव गुजरात के १६ जिलों के ३५ स्मार्ट गांवों में से एक के रूप में घोषित इस गांव ने एक बार फिर विकास के विभिन्न मापदंडों में से एक, स्वच्छता में सफलता हासिल की है। उत्तरसंडा गांव को राष्ट्रीय स्वच्छता सर्वेक्षण ग्रामीण २०२३ प्रतियोगिता में गुजरात राज्य की १९ मॉडल ग्राम पंचायतों में से चुना गया है। जिसके तहत १५ अगस्त तक केंद्र की टीम उत्तरसंडा गांव का दौरा कर स्वच्छता का आकलन कर उत्तरसंडा ग्राम पंचायत को ओडीएफ प्लस (खुले में शौच मुक्त +) आदर्श ग्राम पंचायत के रूप में मान्यता दी गई है.

उत्तरसंडा गांव की जीवनशैली किसी को भी आकर्षित कर सकती है। यहां हर बुनियादी जरूरत का अच्छे से ख्याल रखा जाता है, जिससे ग्रामीणों के जीवन स्तर में भी सुधार हुआ है। उत्तरसंडा गांव ने सड़क, पानी, सीवरेज, तालाब, साफ-सफाई समेत बुनियादी सुविधाओं के सभी मानकों पर उत्कृष्ट कार्य किया गया है। गांव में शिक्षा, स्वास्थ्य, बालिका शिक्षा पर विशेष कार्य किया जाता है।

23,000 पौधे

गांव की भविष्य की पीढ़ी के स्वास्थ्य को बनाए रखने के लिए, ग्राम पंचायत ने हाल ही में मनरेगा के तहत गांव की १४ बीघे बंजर जमीन को समतल करके उसमे १०,००० नीलगिरी और १३,००० वासा (अडूसा) सहित कुल २३,००० पौधे लगाए हैं। इन सभी पौधों की सुरक्षा सुनिश्चित करने के लिए उसके आसपास तार फेन्सींग की गई है।

Figure 36: Waste collection vehicle | Source: Uttarshanda GP

डोर-टू-डोर कूड़ा कलेक्शन

पंचायत द्वारा उत्तरसंडा गांव में कूड़ा निस्तारण की सुंदर व्यवस्था स्थापित की गई है। यहां नियमित रूप से डोर-टू-डोर कूड़ा कलेक्शन किया जाता है। ठोस अपशिष्ट प्रबंधन के लिए पंचायत को विशेष रूप से गांव के दाताओं द्वारा एक ट्रैक्टर और दो छोटे हाथी ट्रिपर आवंटित किए गए हैं। अत: गांव में प्रतिदिन घर-घर से कूड़ा संग्रहण किया जाता है तथा गांव के सभी सार्वजनिक स्थानों पर सफाई की जाती है। डंपिंग स्थल पर बने सेग्रीगेशन शेड में कूड़े को अलग-अलग किया जाता है। इस कार्य को करने के लिए ग्राम पंचायत में लगभग ३० सफाई कर्मियों को तैनात किया गया है। जो गांव की साफ-सफाई कर गांव को स्वच्छ रखने में अपना योगदान दे रहे है।

तहसील का पहला ग्रे वोटर ट्रीटमेन्ट प्लान्ट

खेड़ा जिले की पहली भूमिगत सीवरेज योजना उत्तरसंडा गांव में बनाई गई थी। जिसके तहत गांव के शत-प्रतिशत घरों में सीवर लाइन की सुविधा है। दूषित पानी के उपचार के लिए नडियाद तहसील का पहला ग्रे वाटर प्लांट भी इस गाँव में स्थापित किया गया है। ८ लाख की लागत से बना यह ग्रे वाटर प्लांट गाँव से निकलने वाले सीवेज के पानी को ट्रीट करता है। इस उपचारित जल का उपयोग कृषि, पशुधन और पेड़ों के लिए

Figure 37: Greywater treatment plant | Source: Uttarshanda GP

पुन: उपयोग किया जाता है। साथ ही, स्वच्छ भारत मिशन (ग्रामीण) के तहत रु. ८५,००० रुपये की लागत से एक सेग्रीगेशन शेड भी कार्यरत है।

गांव में 100% शौचालय

गांव में स्वच्छ भारत मिशन (ग्रामीण) के अंतर्गत ठोस एवं तरल अपशिष्टों का स्थाई रूप से निस्तारण एवं सार्वभौमिक स्वच्छता के साथ खुले में शौच पर कार्य करने के लिए ग्राम पंचायत को ओडीएफ प्लस (खुले में शौच मुक्त+) आदर्श ग्राम पंचायत के रूप में मान्यता दी गई है। इसके चलते खेड़ा जिले में पहली बार स्वच्छ भारत मिशन के तहत गुजरात सरकार ने उत्तरसंडा को आदर्श ग्राम पंचायत के रूप में चयनित कर केंद्र सरकार को भेजा। यह एक ऐसा गांव है जहां घरेलू शौचालयों के साथ ३ सामुदायिक शौचालय भी हैं। जिससे गांव में शत-प्रतिशत शौचालयों का उपयोग हो रहा है।

पेयजल और जल संचय की सुविधा से सज्ज

गांव में पानी की समस्या पर बहुत सटीक काम हुआ है। नल से जल (जल जीवन मिशन) के तहत गांव में कुल तीन विशाल पानी की टंकियों का निर्माण किया गया है। जिसमें बस स्टैंड के बगल में एक लाख लीटर पानी क्षमता वाली दो टंकी और २.५ लाख लीटर पानी क्षमता वाली एक टंकी ग्रामीणों को २४ घंटे पेयजल उपलब्ध करा रही है। इसके अलावा ग्रामीणों को स्वच्छ पेयजल उपलब्ध कराने के लिए ऑटो प्लांट द्वारा नियमित रूप से पेयजल का क्लोरिनेशन किया जाता है। पंचायत द्वारा गांव में बरसादी पानी को इकट्ठा करने के लिए जगह-जगह शॉकपिट बनाए गए हैं और आंगनवाड़ी केंद्र में रेनवाटर हार्वेस्टिंग सिस्टम लगाई गई है। इसके अलावा निकट के भविष्य में सोलर सिस्टम से पूरे गांव को बिजली उपलब्ध कराने का आयोजन है। इस प्रकार उत्तरसंडा स्वच्छता के साथ-साथ पर्यावरण संरक्षण एवं संवर्धन द्वारा ग्रीन ग्रोथ का भी उत्कृष्ट उदाहरण बन गया है।

ग्रामीणो के स्वास्थ्य का लगातार ख्याल

गांव में स्वास्थ्य को लेकर ग्रामीण स्तर पर भी बेहतरीन काम हुआ है। गांव का प्राथमिक स्वास्थ्य उपकेंद्र भी ग्रामीणों के स्वास्थ्य के लिए लगातार काम कर रहा है। पंचायत द्वारा गांव में बडो के साथ साथ बच्चो की सेहत का भी ध्यान रखा जाता है। गाँव के बच्चों का स्वास्थ्य उद्देश्य विशेष रूप से कुपोषित बच्चों के लिए एक विशेष स्वास्थ्य उन्मुख योजना बनाई गई है जिसमें गाँव के सात से आठ बच्चों को पाँच साल के लिए गोद लिया गया है। इन कुपोषित बच्चों को हर महीने स्वस्थ पौष्टिक भोजन किट दी जाती है। इसके अलावा गांव की आई.जे.पटेल हाई स्कूल में सैनिटरी डिस्पोजेबल मशीन भी लगाया गया है और ग्राम पंचायत स्कूली बच्चियों को मुफ्त सैनिटरी किट वितरित करती है।

स्मार्ट विलेज

ग्रामीणों की किसी भी प्रकार की शिकायतों के निवारण के लिए उत्तरसंडा ग्राम पंचायत द्वारा सनराइज उत्तरसंडा एप्लिकेशन लॉन्च किया गया है। किसी भी अप्रिय घटना से बचने के लिए गांव में विभिन्न स्थानों पर २६ सीसीटीवी कैमरे लगाए गए हैं, जिससे गांव की सभी गतिविधियों पर नजर रखी जाती है। गांव में वाई-फाई की भी सुविधा है। सरकार की विभिन्न योजनाओं के लाभ के लिए ग्राम पंचायत में ई-ग्राम्स द्वारा ग्रामीणो को सहायता प्रदान की जाती है।

परिश्रमी सरपंच

गांव में किए गये कार्यों के बारे में बात करते हुए सरपंच इशित पटेलने बताया कि सरकार के सामंजस्यपूर्ण सहयोग और जनभागीदारी से गांव में सड़क, पानी और कचरा निकाल जैसी बुनियादी सुविधाओं में सुधार हुआ है। नल से जल योजना के तहत सभी घरों में नियमित पानी की आपूर्ति की जाती है। मनरेगा के तहत झील को गहरा किया गया है इसके अलावा गांव के दाताओं के सहयोग से दो झीलों का ब्युटीफिकेशन भी किया गया है। पंचायत द्वारा सार्वजनिक उपयोग के लिए गांव में नए सार्वजनिक शौचालय बनाए गए हैं । प्लास्टिक मुक्त भारत बनाने की दिशा में नव निर्मित सब्जी मंडी में लोगों को प्लास्टिक का उपयोग कम कराने का संदेश देने के लिए ग्राम पंचायत द्वारा १५ दिनों के लिए बायो-डिग्रेडेबल बैग वितरित किए गए हैं। वहीं ग्राम पंचायत को सोलर सिस्टम से क्रियाशील कर दिया गया है।

The Rise of Swachh Sujal Gaon in Uttar Pradesh

- **Charu Shukla**, State Water and Sanitation Mission, UP

Mornings in most villages of Uttar Pradesh have undergone a remarkable transformation compared to what they used to be. Women in these villages, once burdened by the daily struggles of open defecation and the exhausting task of fetching water from distant, often unhygienic sources, now experience a significant improvement in their lives. With access to proper sanitation and safe drinking water within their reach, their day-to-day routines have shifted dramatically.

This positive change can be attributed to two key government initiatives that have reshaped the rural landscape—the Swachh Bharat Mission Grameen and the Jal Jeevan Mission. Launched under the leadership of the Prime Minister, these aspirational missions have played a crucial role in ensuring cleanliness in villages and providing access to safe sanitation and access to potable water.

In the past, the situation in villages was grim, especially regarding basic sanitation and access to clean water. The practice of open defecation was widespread, creating an unhygienic environment that contributed to the spread of numerous diseases. People lacked awareness about personal hygiene, which resulted in poor living conditions and significant health risks for the community. Open defecation not only compromised the health of the villagers but also worsened social problems. Women faced a lack of privacy, which affected their dignity and safety. The elderly and disabled, too, suffered due to the absence of proper sanitation facilities, as they were unable to manage the strain of going to remote areas to relieve themselves.

Another pressing issue was the scarcity of clean and sufficient water. In many villages, access to clean drinking water was a challenge. Women had to walk long distances, often several kilometers, to collect water for drinking and other household needs such as cooking, cleaning, and washing. This daily task consumed a considerable amount of time and energy, leaving women with little time for other productive activities. The water they fetched was not always safe to drink, increasing the risk of waterborne diseases like diarrhea, cholera, and dysentery, which frequently affected children and the vulnerable. These diseases posed a constant threat to the health and well-being of the community, particularly to young children and the elderly. Girls, too, were affected as they often accompanied their mothers or took over the responsibility of fetching water. This resulted in irregular school attendance and, in many cases, early dropouts, thus perpetuating a cycle of limited education and fewer opportunities for personal growth.

As a part of the broader effort to achieve the goals of SBM-G and JJM, Swachh Sujal Gaon was initiated by the Government of India under the Ministry of Jal Shakti to promote cleanliness, water conservation, and hygiene in rural areas.

The Swachh Sujal Gaon is a village that is "clean" (Swachh) and has access to sustainable water (Sujal), improving the overall quality of life of rural communities. So far, 20,590

Figure 38: A scene of a Swachh Sujal village in Uttar Pradesh | Source: SWSM UP

Figure 39: School children of a village in Uttar Pradesh | Source: SWSM UP

villages (both ODF and HGJ certified) in Uttar Pradesh have transformed into "Swachh Sujal Gaon" (clean and water-sufficient villages), creating a supportive environment for all. Women now lead their lives with dignity, having access to toilets at home and a reliable 24-hour supply of clean water. No longer burdened by the need to secure basic necessities, they can now dedicate more time to important aspects of their lives. This includes sending their children to school, efficiently managing household responsibilities, and pursuing personal growth. These changes have not only brought convenience but have also given a sense of dignity, safety, and empowerment for women.

On the other hand, the landscape of basic education has changed remarkably, with a significant reduction in dropout rates, especially among girl students in both Primary and Upper Primary Schools. This positive shift can be attributed to improvements in school facilities, particularly the availability of functional toilets equipped with running water. Dedicated toilets for girls, complete with running water, have transformed the school environment. These facilities not only ensure that girls can maintain proper hygiene during their school day, but they also provide a sense of security and dignity. The numbers are self-explanatory, which shows the significant decrease in school dropout rate after SBM-G & JJM.

Health indicators have shown improvement, as demonstrated by a notable reduction in waterborne diseases in various parts of the state. Particularly in eastern Uttar Pradesh, there has been a significant drop in deaths caused by Japanese Encephalitis (JE) and Acute Encephalitis Syndrome (AES), both of which are linked to waterborne conditions.

The statistics speak for themselves, reflecting the significant strides made in public health. However, the true impact extends far beyond the figures. This progress has brought about more than just better health. It has restored dignity to families who no longer live in fear of preventable diseases, especially those that disproportionately affect vulnerable populations such as children and the elderly. Access to clean water and better sanitation has led to enhanced daily living conditions, allowing people to lead more productive lives. Moreover, with fewer disease outbreaks, local economies are improving, as families are less burdened by medical expenses and loss of productivity due to illness.

In essence, the impact is not just statistical; it has transformed the lives of many, providing them with the opportunity to thrive in a healthier and more dignified environment. This ripple effect of improved health touches every aspect of life, from education to economic growth, and strengthens the social fabric of the entire region.

Year	Drop Out Rate (%) (Primary)			Drop Out Rate (%) (Upper Primary)		
	Girls	Boys	Overall	Girls	Boys	Overall
2021-22	2.98	2.4	2.68	4.65	1.25	2.9
2018-19	4.3	4.59	4.45	5.14	4.26	4.68

(Source: Basic Education Department, Uttar Pradesh)

Outbreak of Water Borne Diseases (As received from Health Department-Sanchari Rog Vibhag)		
Year	Total Cases	Total Deaths
2019	443480	17
*2020 (covid effected year)	60345	0
*2021 (covid effected year)	28449	13
*2022 (covid effected year)	42546	25
2023	38026	11
2024	7638	5

(Source: Health department Uttar Pradesh)

Gamerimura Village: Pioneering Clean Water and Hygiene Practices

- CML Tata Trust Team

Nestled in Boko, Assam, Gamerimura Village is a shining example of what a community can achieve through unity, commitment, and the desire for a healthier future. Once facing challenges familiar to many rural areas—limited access to clean water and widespread open defecation—Gamerimura has transformed itself into a model Swachh and Sujal Gaon (clean and water-secured village). Through the efforts of the villagers, their Water Users Committee, and government initiatives like the Jal Jeevan Mission (JJM) and Swachh Bharat Mission Grameen (SBM-G), the village is now a beacon of progress.

The Spark of Change

Gamerimura, like many rural villages, once struggled with a lack of clean drinking water and sanitation facilities. Waterborne diseases were common, and open defecation was the norm. Recognizing that these issues posed serious health risks, the villagers formed the Water Users Committee, a group dedicated to improving water access and hygiene. This committee played a pivotal role in rallying the community around the importance of clean water and sanitation.

Har Ghar Jal: Water in Every Household

Under the Jal Jeevan Mission's Har Ghar Jal initiative, the village set out to bring safe drinking water to every home. It was a massive undertaking, requiring new pipelines, water storage tanks, and ensuring the water was properly treated. With relentless effort from the villagers and the guidance of government engineers, Gamerimura succeeded in providing tap water to all its households. Today, every family in Gamerimura enjoys access to clean, treated water right at their doorstep, eliminating the need to fetch water from distant sources. The impact on the village has been profound—cases of waterborne diseases have significantly decreased, and families have more time for productive activities. Children now attend school regularly, healthier and happier.

Figure 40: Regular village cleaning activity | Source: CML Tata Trust

ODF Plus: Clean Habits for a Clean Village

Parallel to their water efforts, the village embraced the Swachh Bharat Mission, achieving Open Defecation Free (ODF) status by constructing toilets for every household. But they didn't stop there—Gamerimura pushed further to achieve the ODF Plus model, ensuring that sustainable sanitation practices became a way of life. Through awareness campaigns led by the Water Users Committee, villagers learned the critical link between hygiene, sanitation, and health. The committee organized regular clean-up drives, workshops, and home visits to promote the importance of toilet use, waste

management, and maintaining clean surroundings. Their efforts instilled lasting clean habits in the community, making the village an exemplary model for others to follow.

Miss. Miree Sangma, an anganwadi worker from Gamerimura, shared her experience: *"I remember when the Swachh Bharat Mission started. It wasn't just about building toilets; it was about creating a safer, healthier future for our children. Everyone in the village pitched in to keep things clean, and when the Jal Jeevan Mission brought clean water to our doorsteps, it changed our lives. We used to spend hours each day hauling water, but now we don't have to worry about that, and we know our children are drinking safe water. The team from CML and Tata Trusts became like friends—they didn't just give us resources but taught us how to care for our water systems, how to practice better hygiene, and how to make this progress last. Now, we feel proud and hopeful, knowing that the clean, healthy future of Gamerimura is in our own hands and here to stay."*

The Power of the Water Users Committee

The heart of Gamerimura's success lies in its Water Users Committee. This group, composed of village leaders, women, youth, and other active community members, led the charge in both water management and sanitation efforts. Their role went beyond organizing infrastructure projects—they inspired the community, fostering a collective sense of responsibility for the village's cleanliness and health.

A Model Swachh Sujal Gaon in the Making

With access to tap water and the ODF Plus certification under their belt, Gamerimura is now on the path to becoming a Swachh Sujal Gaon. The village has implemented sustainable waste management practices, including solid waste segregation, composting, and wastewater treatment. These measures have further improved the quality of life in the village, making it not only cleaner but also more environmentally conscious. Today, Gamerimura stands as a symbol of what can be accomplished through collective action and dedication. The village's transformation has inspired neighbouring communities to follow suit, proving that even the smallest village can lead by example.

A Future Built on Unity and Vision

While Gamerimura's journey is a story of remarkable progress, it is far from over. The Water Users Committee remains active, continuously leading efforts to maintain the village's high standards of cleanliness and water security. The village's commitment to a healthier, cleaner future is unwavering, and the lessons learned in Gamerimura will serve as a guide for communities across India. Gamerimura is more than just a success story—it is a testament to the power of community spirit. The village has shown that when people come together with a shared vision of a Swachh and Sujal Gaon, they can overcome even the toughest challenges, creating a brighter future for generations to come.

Figure 41: A happy villager with IHHL and FHTC | Source: CML Tata Trust

Women led Sustainable Operation and Maintenance of Rural Water Supply Systems in Jharkhand

- **Rajesh Kumar Sharma (IAS),** Secretary, Drinking Water and Sanitation Department; **Kumar Premchand,** Water, Sanitation and Hygiene Specialist, UNICEF Jharkhand; **Laxmi Ranjan Saxena,** Water, Sanitation and Hygiene Officer, UNICEF Jharkhand; & **Neha Singh** District Wash Consultant, Integrated Development Foundation

Water is central to health, economic growth, and social well-being. A secure water supply is critical for a healthy economy but often under-prioritized globally. In India, waterborne diseases cost an estimated USD 600 million annually[1], especially affecting drought- and flood-prone regions. Two-thirds of India's districts face severe water depletion due to extensive groundwater use. India, the world's largest groundwater consumer, relies on it for 85% of rural and 48% of urban water needs.

In homes without reliable water, women and children spend hours collecting it, leading to reduced school attendance and a 22% rise in dropout rates in drought-affected states. Women in rural areas lose 27 days of wages annually collecting water. Although 93% of rural areas had improved water access by 2015, only 49% had safely managed drinking water.

Jharkhand, a state with high poverty and a significant tribal population, has seen functional household tap connections rise from 17% to 49% since 2019[2]. The state aims for full coverage by FY 2025-26, with local women, known as Jalsahiyas, crucial to the operation and maintenance of water supply schemes.

However, in India, particularly in rural areas, water management remains a critical issue. Jharkhand, a state with a significant proportion of marginalized communities, has faced water supply challenges that impact both health and livelihoods. The Jal Jeevan Mission (JJM), which seeks to provide piped water to every household by 2024, emphasizes grassroots-level involvement, with women playing a vital role in the operation and maintenance of Rural Water Supply Systems (RWSS).

This article explores the critical role women, particularly Jalsahiyas (village-level women workers), play in ensuring the sustainability of water supply systems across six districts of Jharkhand. These systems aim to promote community engagement, financial sustainability, and leadership among women, who are traditionally responsible for managing household water resources.

The Role of Women in Water Management

In Jharkhand, women have traditionally been the primary managers of household water needs. Jalsahiyas, trained under the Jal Jeevan Mission, serve as front-line workers responsible for ensuring the smooth operation of RWSS. Their responsibilities include water quality testing, monitoring, and minor repairs. This integration of women into formal water management roles has proven to be a significant factor in the sustainability of these systems.

A survey conducted across 100 Gram Panchayats (village councils) showed that 73.96% of households had Functional Household Tap Connections (FHTCs). Despite challenges in supply frequency, the high involvement of women has led to improvements in water quality and access. Jalsahiyas have received training to address water system issues, which has empowered them not only as workers but as community leaders who contribute to the overall development and well-being of their villages.

Key Findings: Sustainability and Community Involvement

The study revealed that 90% of Jalsahiyas expressed confidence in their ability to manage water supply systems independently, even after

1 https://www.unicef.org/India/what-we-do/clean-drinking-water#:~:text=When%20families%20do%20not%20have,children%20that%20are%20responsible%20for

2 https://pdfs.semanticscholar.org/a5da/3ce07b610a68d0b39bdb97163376d3f83de0.pdf, www.ircwash.org/sites/default/files/202.1-85PA-2977.pdf&ved=2ahUKEwjvt6iV88-HAxXkUGcHHTwtMygQFnoECBsQAQ&usg=AOvVaw1SCH-ZMjyvi2XdsZLmp_MX

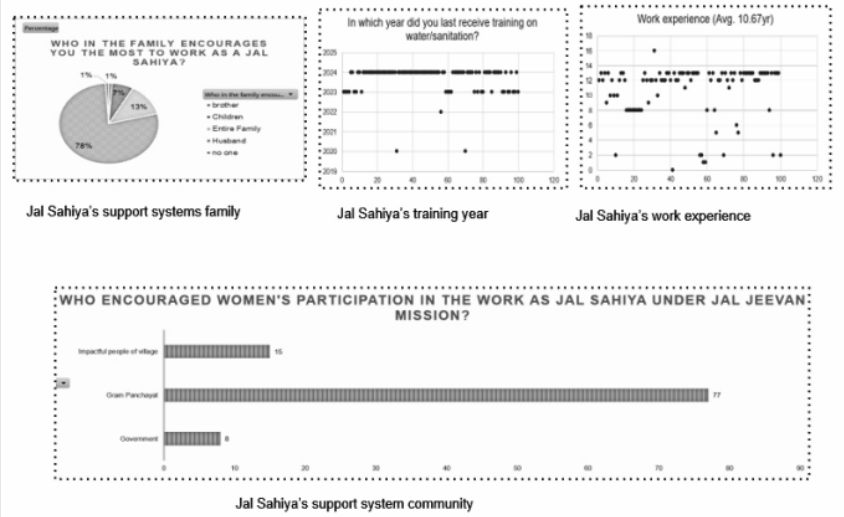


Figure 42: Key Findings: Sustainability and Community Involvement. Source: Research Paper submitted by UNICEF Jharkhand at Internationall WASH Conference

external support phases out. This sense of self-reliance is critical for the long-term sustainability of RWSS. Jalsahiyas have reported increased support from their families and communities, with 78% of respondents indicating strong spousal support and 77% receiving backing from Gram Panchayats. This community endorsement has been instrumental in facilitating women's active involvement in water management.

One of the major successes of the Jal Jeevan Mission in Jharkhand has been the focus on water tax collection, which has led to a revenue collection of ₹2.48 crore for RWSS maintenance. This financial sustainability is vital for ensuring that systems are properly maintained over the long term. However, the study highlighted challenges such as limited financial resources and a lack of technical expertise in some areas, which need to be addressed to ensure consistent operation.

Challenges and Solutions

While Jharkhand has made great strides in improving water access, several challenges remain. Limited financial resources, fragile infrastructure, and reliance on external technical expertise have been identified as major barriers to sustainability. Furthermore, although the study noted the high levels of training among Jalsahiyas, there is still a need for continuous capacity-building programs to ensure that women can handle more complex issues without external intervention.

Additionally, water quality testing remains inconsistent. While 61% of the villages surveyed had conducted water quality tests, 35% of respondents indicated that their water had not been tested, posing a risk to public health. Strengthening the technical capacity of Jalsahiyas in water quality management and increasing the frequency of testing are critical steps toward ensuring safe drinking water for all.

Impact on Women and Communities

The involvement of women in RWSS has not only improved water access but has also empowered women in Jharkhand's rural communities. Women now play a more prominent role in decision-making processes at the village level. The Jal Jeevan Mission has led to significant improvements in the daily lives of women, reducing the time spent on water collection and improving household sanitation. In turn, these improvements have led to better health outcomes, particularly for children, and have reduced the incidence of waterborne diseases.

Conclusion

The integration of women into the operation and maintenance of RWSS in Jharkhand has proven to be a sustainable model for water management. Jalsahiyas have emerged as key players in ensuring that water systems function efficiently, benefiting from community support and contributing to the overall development of their villages. However, for the sustainability of these systems to continue, challenges such as financial constraints and technical gaps need to be addressed.

With continued investment in training and infrastructure, along with stronger community involvement, the Jal Jeevan Mission can serve as a model for water management across India. Women, as the backbone of these efforts, will continue to play a crucial role in ensuring that every household in Jharkhand has access to safe, reliable water.

***Research Paper presented in the International WASH Conference 2024 held by the Department of Drinking Water and Sanitation (DDWS) during the 8th India Water Week and article edited by Utkarsha Rathi, NJJM.*

Empowering Future Generations: Capacity Building Program for Schoolchildren on Climate Change in Uttar Pradesh

- **Taranpreet Kaur,** Capacity Building Expert, UNOPS; rewritten by
Utkarsha Rathi; UNOPS from paper submitted in Int'l WASH conference

As climate change poses increasing challenges, particularly in vulnerable regions of India, equipping future generations with the knowledge and skills to address these issues becomes critical. The Capacity Building Program for schoolchildren on climate change, health, and hygiene, implemented by the United Nations Office for Project Services (UNOPS) in collaboration with The Energy and Resources Institute (TERI), aims to foster climate resilience and environmental consciousness among young students. The program targeted 11 districts in the Bundelkhand, Vindhya, and Prayagraj regions of Uttar Pradesh, known for their acute vulnerability to water scarcity and other environmental stressors.

The initiative seeks to empower children as agents of change, enabling them to address climate challenges and promote sustainable practices within their communities. The students' involvement goes beyond education, instilling leadership and community engagement that can ripple across future generations.

Program Overview

The Capacity Building Program was designed to raise awareness about the effects of climate change, with a particular emphasis on water scarcity and hygiene. A total of 26,722 students (16,498 of whom were girls) from 162 schools participated in this large-scale initiative. The program's core activities included workshops, interactive lessons, and community engagement, all aimed at fostering knowledge of water conservation, climate adaptation, and the importance of maintaining hygiene standards in resource-scarce regions.

Key objectives of the program included educating students on climate change's direct impact on water availability, promoting health through better hygiene practices, and nurturing future leaders who would champion environmental causes within their communities.

Key Focus Areas

Climate Change and Water Management: Uttar Pradesh, especially the Bundelkhand and Vindhya regions, faces critical water shortages due to over-extraction of groundwater and climate-induced droughts. The program emphasized the importance of understanding how climate change affects water resources. Through hands-on learning, students were taught about water conservation and the sustainable use of local water supplies.

Health and Hygiene: With limited water access, maintaining hygiene becomes a challenge. The program educated students on the importance of clean water for health, stressing the consequences of poor sanitation. By linking water scarcity to hygiene, students learned to adopt sustainable practices that could improve public health and reduce waterborne diseases in their communities.

Student Leadership and Community Engagement: A major goal of the program was to cultivate leadership skills among students. The program identified Student Ambassadors, who received specialized training and later led school workshops to promote climate awareness. These student leaders acted as role models and spread their knowledge within both the school and the wider community.

Methodology

The program employed a participatory approach that involved students, teachers, and local stakeholders. A mix of interactive workshops, role-playing, science experiments, and community projects made the learning process both engaging and practical. Students were encouraged to relate their classroom lessons to real-life scenarios, such as the local droughts and water shortages they experienced in their villages.

Workshops were organized at both cluster and school levels, where neighboring schools collaborated. Activities such as chart-making, storytelling, and skit performances helped students creatively express their understanding of climate change and water conservation. These activities promoted student

S. No	District	Block	Total No. of schools/ colleges	Students
1	Chitrakoot	Ramnagar	33	8870
2	Kaushambi	Chail	23	3102
3	Mirzapur	Nagar (City)	16	2284
4	Prayagraj	Karchhana	16	6263
5	Sohnbhadra	Robertsganj	9	1162
6	Banda	Banda	19	1594
7	Hamirpur	Kurara	13	867
8	Jalaun	Kadaura	3	427
9	Jhansi	Babina	14	1065
10	Lalitpur	Jhakora	8	718
11	Mahoba	Kabrai	8	370
		Total	**162**	**26722**

Table: District wise involvement of students in the study.

engagement and fostered a sense of responsibility for their environment.

Results and Impact

The program's impact extended beyond the classroom, significantly influencing both students and their communities:

Increased Awareness: Students developed a strong understanding of climate change, water scarcity, and hygiene. By participating in activities such as quizzes and group discussions, they not only learned about these critical issues but also took these lessons back to their families, fostering greater community awareness.

Student Ambassadors as Leaders: Trained student ambassadors demonstrated exceptional leadership by organizing workshops and climate action projects. Their efforts helped spread awareness about environmental sustainability and prompted their peers to engage in climate-related discussions and initiatives.

Community-Level Change: The program also resulted in a ripple effect across the broader community. Parents, influenced by the knowledge their children brought home, began adopting better water management and hygiene practices. This created a culture of sustainability and resilience at the local level, helping communities adapt to the challenges of water scarcity. While the program achieved its objectives, certain challenges arose. Scheduling workshops around students' academic calendars, especially during exam periods, proved difficult. Additionally, extreme weather conditions sometimes affected attendance at outdoor activities. Despite these logistical hurdles, the program maintained its momentum by ensuring that workshops were scheduled appropriately and refreshments were provided to keep students hydrated during hot weather.

Conclusion

The Capacity Building Program targeting school children on climate change and hygiene has proven to be a successful model for fostering environmental consciousness and leadership among young students. By empowering children to act as climate ambassadors, the program has created lasting changes in both individual and community attitudes

Figure 43: Cluster and School level Workshop

Figure 44: Training of trainers for Capacity Building program

Figure 45: Student Engagement in Chart Making for Water Conservation

Source: UNOPS, Research Paper submitted by UNOPS Jharkhand at International WASH Conference

Figure 46: Manuals prepared for students in English & Hindi
Source: UNOPS, Research Paper submitted by UNOPS at Int'l WASH Conference

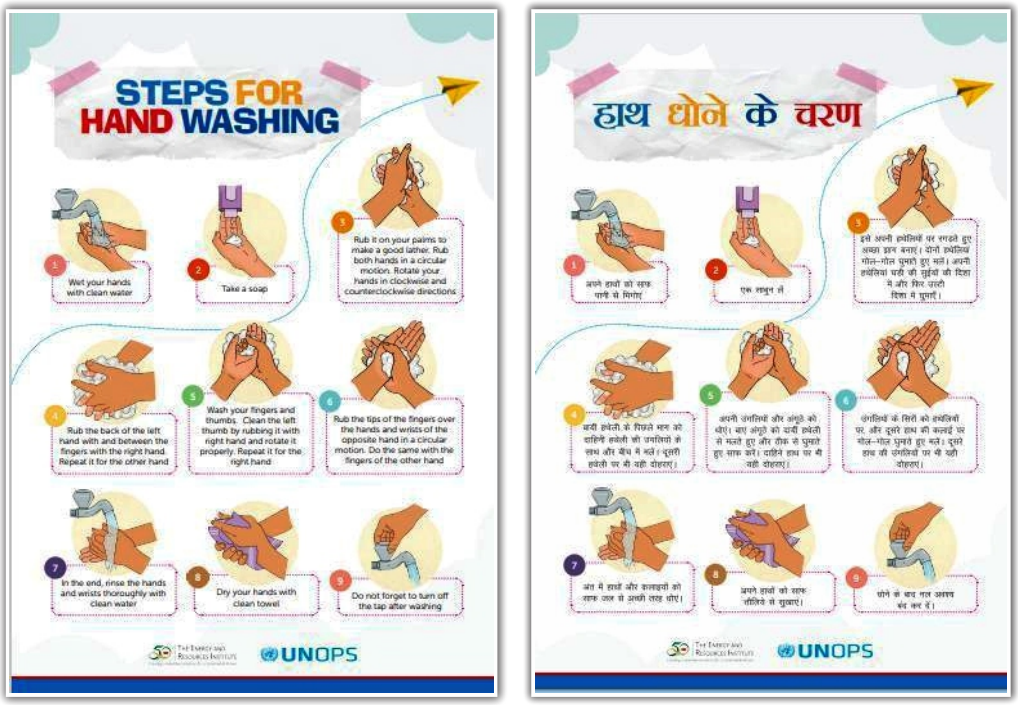


Figure 47: Posters to be pasted on school walls for awareness
Source: UNOPS, Research Paper submitted by UNOPS at International WASH Conference

toward sustainability. The initiative's long-term impact will be seen as these students grow into community leaders capable of addressing the ongoing challenges posed by climate change.

As climate change intensifies, expanding such programs across more regions will play a vital role in preparing future generations to lead sustainable, climate-resilient communities. By instilling a sense of environmental stewardship in today's youth, the program paves the way for a more sustainable future in India and beyond.

***Research Paper presented in the International WASH Conference 2024 held by the Department of Drinking Water and Sanitation (DDWS) during the 8th India Water Week and article edited by Utkarsha Rathi, NJJM.*

Kotri's Journey: A Sustainable JJM Model through Empowered VWSC

- **Nanak Santdasani,** WASH Officer, UNICEF, Rajasthan and
Shaitan Singh, Superintending Engineer, PHED, Pratapgarh District, Rajasthan

Nestled in the southern part of Rajasthan, near the Aravalli range, Kotri village is home to 550 households spread across two habitations. While Rajasthan is known for its arid landscape, regions like Kotri, inhabited by tribal communities, offer unique challenges and opportunities for water management. Before the Jal Jeevan Mission, Kotri relied on public standposts and hand pumps under the Janta Jal Yojana, a system fraught with water quality issues, including turbidity and contamination.

With the advent of JJM, Kotri began its journey towards safe, accessible drinking water for all its residents. By July 2024, every household in Kotri had tap connections, ensuring a steady and reliable supply of clean water.

Overcoming Challenges: The Role of the VWSC

Despite the infrastructure provided by JJM, Kotri faced hurdles in sustainable operation and maintenance (O&M) of its water systems. Key challenges included a lack of clarity about the community's role in water governance and minimal O&M policy implementation. This is where the Village Water and Sanitation Committee (VWSC) stepped in.

Figure 48: Engaging the Community through Participatory Rural Appraisal (PRA) [3]

Supported by the Public Health Engineering Department (PHED) and UNICEF, the VWSC in Kotri was empowered through capacity-building exercises, strategic planning, and community mobilization. These efforts led to a well-organized system where the VWSC took full ownership of the village's water supply.

Methodology: A Participatory Approach to Sustainable Water Management

The participatory research conducted in Kotri adopted a phased approach, focusing on building the capacity of VWSC members and involving the local community. This approach began with initial engagement and mobilization, followed by detailed capacity-building sessions on O&M, tariff collection, and financial management. Critical to this process was the development of a handover checklist, which ensured that the transition of responsibilities from PHED to the VWSC was smooth and well-documented.

Through consistent engagement, training on financial management, and technical support, Kotri's VWSC has become a self-sustaining entity,

3 All images in the document are sourced from the Research Paper submitted for International WaSH Conference

capable of managing water supply for the village independently.

Financial Sustainability: A Key Outcome

One of the most significant achievements of the Kotri VWSC is its ability to maintain financial sustainability. By collecting water tariffs from residents, the VWSC accumulated ₹11.54 lakh by March 2024, with a monthly surplus of ₹15,000 earmarked for future O&M activities. The establishment of a dedicated bank account for water supply management further ensures that funds are available for ongoing maintenance and repairs.

This financial autonomy is a testament to the successful engagement of the Kotri community, whose active participation has made the village a model for sustainable water supply governance.

Empowering Women: Water Quality Testing and Community Involvement

A unique aspect of Kotri's success has been the role of women in ensuring water quality. Five women from the village were trained to conduct chemical and bacteriological tests using Field Test Kits. Their involvement not only contributed to ensuring safe water but also empowered them to become key decision-makers in the VWSC.

When water contamination was detected, the trained women played an essential role in reporting issues and facilitating prompt corrective action. This proactive approach to water safety has ensured that the community remains vigilant about maintaining high water quality standards.

Replicating the Kotri Model

The intervention in Kotri highlights the importance of a well-structured VWSC in achieving long-term sustainability for water supply systems. With the PHED's proactive management and UNICEF's technical support, the VWSC has demonstrated that community-driven solutions can lead to significant improvements in rural water management.

The success of Kotri provides a replicable model for other villages aiming to achieve sustainable water systems under JJM. By empowering local communities with the tools, training, and financial autonomy they need, villages across Rajasthan – and beyond – can create resilient and sustainable water systems that meet the needs of all residents.

A Roadmap for the Future

Kotri's journey towards sustainable water management under JJM serves as a beacon of hope for rural communities across India. The key takeaway from this success story is the importance of community ownership, financial sustainability, and local governance in ensuring the long-term success of water supply systems.

By scaling the Kotri model to other villages, with necessary adaptations based on local contexts, India can move closer to achieving the ambitious goals of the Jal Jeevan Mission – ensuring safe and reliable water for every household, and fostering a future where rural communities thrive.

***Research Paper presented in the International WASH Conference 2024 held by the Department of Drinking Water and Sanitation (DDWS) during the 8th India Water Week and article edited by Shailika Sinha, NJJM.*

Figure 49: Awareness Rally in Kotri Schools on Water Issues

Community Management in Jal Jeevan Mission for Sustainable Rural Water Supply in Hassan and Mandya Districts, Karnataka

- **Dr. P. Siva Ram,** National WASH Expert & Former Professor and Head, NIRDPR, Hyderabad

Introduction

The research focuses on the role of community management in ensuring a sustainable rural water supply across 32 sample villages in Hassan and Mandya districts. By interviewing 960 respondents from these villages and using participatory tools like focus group discussions (FGDs), the study sheds light on how village communities, Village Water and Sanitation Committees (VWSCs), and Panchayati Raj Institutions (PRIs) collaborate to implement JJM.

The research question revolves around understanding the role of local communities in making rural water supply sustainable.

Significance: This study holds importance for policymakers and practitioners alike, offering grassroots-level evidence on community-driven rural water supply management. The findings also suggest strategies to scale up successful practices, making it a vital resource for improving rural water systems.

Availability of Drinking Water: An overwhelming 93% of respondents reported that drinking water is available and accessible through FHTCs at their doorstep throughout the year. However, some challenges were noted in the tail-end villages, where reduced water pressure was reported, particularly during summer months, mainly due to drought conditions in the region.

Table 1: Availability of drinking water from Functional Household Tap Connections in all seasons

Sl.No	Name of the Selected District	Availability of Drinking water in All Seasons – Number of Respondents		Total
		Yes	No	
1	Hasan	456 (95.0) (51.1)	24 (5.0) (35.8)	480 (100) (50.0)
2	Mandya	437 (91.1) (48.9)	43 (8.9) (64.2)	480 (100) (50.0)
	Total	893 (93.0)	67 (7.0)	960 (100)

Figure 1: Availability of Drinking water from Functional Household Tap Connections in All Seasons

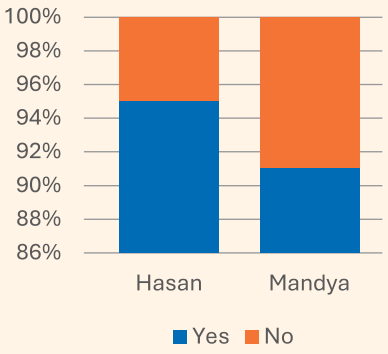
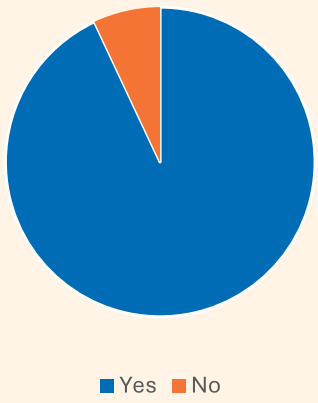


Figure 2: Total



Major Findings

1. **Formation of Village Water and Sanitation Committees (VWSCs)**: Nearly 100% of respondents confirmed their community's active role in forming VWSCs, which oversee water supply management. Notably, 50% of the committee members are women, which has not only empowered women in decision-

making but also strengthened the functioning of these committees.

2. **Preparation of Village Action Plans (VAPs)**: Communities, alongside VWSCs and PRIs, participated in the preparation of Village Action Plans (VAPs), which were integrated into the Gram Panchayat Development Plans (GPDPs) and uploaded on the Ministry of Panchayati Raj's website. This indicates a strong sense of ownership and commitment among the villagers towards the water supply systems.

3. **Information, Education, and Communication (IEC) Initiatives**: More than 94% of respondents acknowledged the community's involvement in spreading awareness through IEC initiatives. These campaigns focused on important issues like water conservation, personal hygiene, and water quality testing. ASHA workers and Anganwadi staff also contributed through door-to-door campaigns to disseminate crucial information.

4. **Water Quality Monitoring**: Community participation in water quality monitoring was reported by 94% of the respondents. Equipped with Field Test Kits (FTKs), members of VWSCs played an essential role in ensuring the safety of drinking water by regularly testing it.

5. **Capacity Building**: 92% of respondents believed that VWSCs, PRIs, and other stakeholders involved in the operation and maintenance (O&M) of water systems need continuous capacity-building initiatives. The study recommends that these personnel should be provided with technical and managerial training to enhance their skills.

6. **Water Conservation Awareness**: Approximately 73% of respondents were aware of the importance of saving water, a concept reinforced through various community meetings and campaigns. However, there was still a portion of the population (27%) that lacked awareness, highlighting the need for more education and sensitization programs.

7. **Impact on Girl Child Enrollment**: The provision of household water connections has significantly impacted school enrollment, particularly for girls. Before JJM, many girls were responsible for fetching water, leading to reduced school attendance. Now, 93% of respondents reported that the community's efforts had ensured that every girl child attends school, marking a major shift in village dynamics.

8. **Willingness to Pay for Water Services**: About 66% of respondents expressed their willingness to pay water charges, currently set at Rs. 50 per month. Many indicated that they would be willing to pay more if the water supply was available 24/7. However, 34% of respondents were hesitant to pay for water, citing various reasons, including the belief that the government should cover all costs.

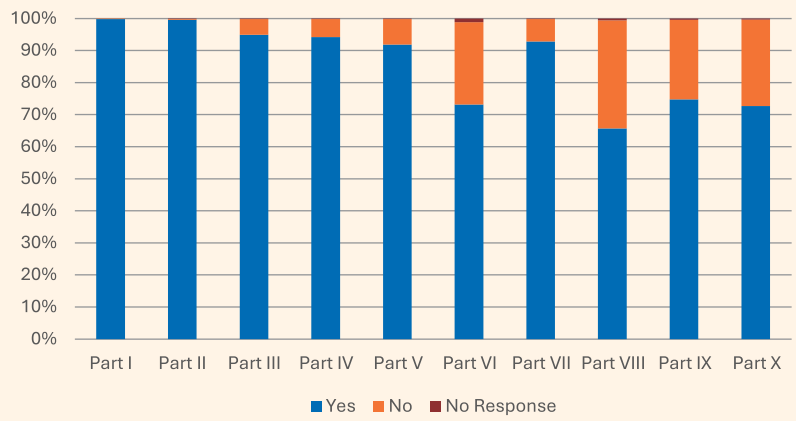
9. **Community Contributions**: Around 75% of respondents supported community contributions to the maintenance and operation of water systems, seeing it as a way to build ownership. On the other hand, 25% of respondents felt that since JJM is a government program, all expenses should be borne by the government.

10. **Sustainability Practices**: About 73% of respondents recognized the importance of sustainability practices such as community ownership, rainwater harvesting for source recharge, and the integration of traditional water management methods with modern techniques. Nevertheless, 27% of respondents did not believe in these practices, pointing to a need for more awareness campaigns.

Sr. No.	Major Aspects of Community Management	Number of Respondents			
		Yes	No	No Respons	Total
	Part - I				
1	VWSC: Formation, understanding roles and responsibilities, attending meetings, record maintenance and 50% women,	958 9.8	2 (0.2)	-	960
	Part - II				
2	Village Action Plan (VAP): prepared and approved by GP and part of GPDP	952 (99.2)	6 (0.6)	2 (0.2)	960

Sr. No.	Major Aspects of Community Management	Number of Respondents			
		Yes	No	No Respons	Total
	Part - III				
3	IEC - Methods of dissemination: wall writings, posters at GP, Door to door campaigns by ASHA & Anganwadi etc,	911 (94.9)	47 (4.9)	2 (0.2)	960
	Part - IV				
4	Water Quality Monitoring: FTK Availability with VWSC, Community involvement in water quality testing for ensuring safe drinking water.	904 (94.2)	54 (5.6)	2 (0.2)	960
	Part - V				
5	Capacity Building: Training to VWSCs, PRIs and skilled labor for O&M	882 (91.9)	76 (7.9)	2 (0.2)	960
	Part - VI				
6	Saving water: Awareness creation by involving Men, woman, Youth, school children, elders, PRIs etc	702 (73.1)	247 (25.7)	11 (1.2)	960
	Part - VII				
7	Enrolment of Girl children in Schools	891 (92.9)	67 (6.9)	2 (0.2)	960
	Part - VIII				
8	Willingness to pay water charges	631 (65.8)	323 (33.6)	6 (0.6)	960
	Part - IX				
9	Community Contributions by the villagers	718 (74.8)	238 (24.8)	4 (0.4)	960
	Part - X				
10	Sustainability Practices: Community Ownership; Rainwater Harvesting structures for source recharge, Integration of traditional water management practices with modern methods.	698 (72.7)	259 (27.0)	3 (0.3)	960

Figure 3: Community Management in Rural Drinking Water Supply

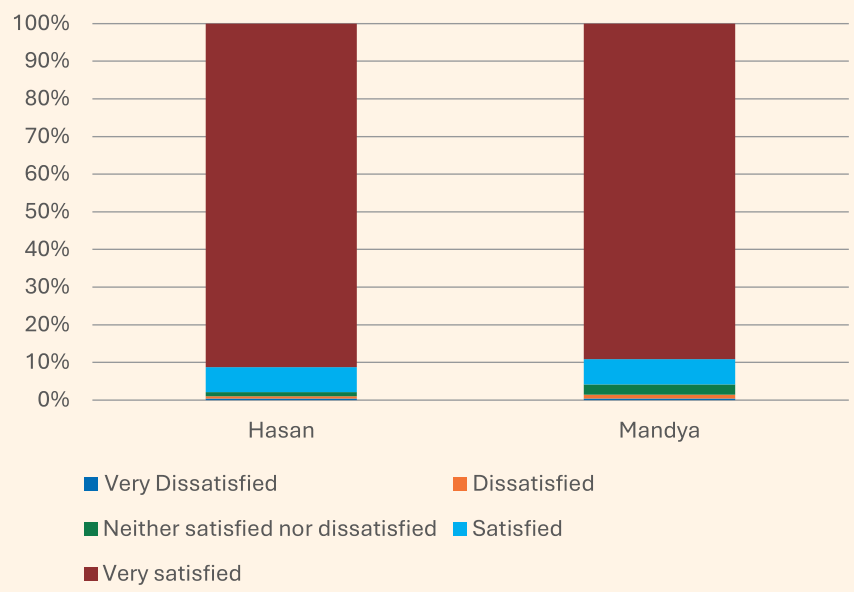


Success Factors

The study identified several key factors that contributed to the success of JJM in these districts:

- Strong leadership at the Gram Panchayat level,
- Active participation by local communities and marginalized groups, including women,
- Effective training programs for VWSC members, and

Figure 4: Satisfaction levels on Rural Drinking Water Projects of JJM



- Transparent financial management, with regular monitoring by peer groups, including Self-Help Groups (SHGs).

Challenges and Recommendations

Despite the success of community management in these regions, there are still challenges that need to be addressed:

- **Community Engagement:** Varying levels of community engagement were noted, with some areas showing stronger involvement than others.
- **Financial Constraints:** Limited resources sometimes hindered the community's ability to maintain water systems.
- **Technical Issues:** O&M of water systems faced technical difficulties, especially during times of seasonal water scarcity.

The study recommends the following steps to improve and sustain the JJM model:

- **Afforestation and Water Conservation:** Intensive afforestation and the promotion of water conservation practices, such as rooftop rainwater harvesting and the renovation of traditional water bodies, should be prioritized.
- **Enhanced Capacity Building:** Continuous training programs should be organized for VWSC members to develop both technical and managerial skills.
- **Financial Sustainability:** Sustainable revenue models need to be developed to ensure that communities can continue to manage water systems without solely relying on government funds. External funding from CSR initiatives and philanthropic contributions should also be encouraged.
- **Technical Support:** Robust technical support systems should be developed, ensuring that communities can independently manage O&M challenges.

Conclusion

The community management model of Jal Jeevan Mission in Hassan and Mandya districts offers valuable lessons for rural water supply sustainability. Active involvement of local communities has improved service delivery, enhanced ownership, and contributed to the long-term sustainability of water systems. However, addressing the existing challenges and scaling up best practices will be essential for ensuring the mission's continued success. The insights from this study can provide valuable guidance to policymakers and practitioners working towards universal access to safe and sustainable drinking water across India's rural areas.

Through collective effort and strong community participation, Jal Jeevan Mission has not only brought water to people's doorsteps but has also transformed lives, enabling education, empowerment, and enhanced livelihoods in rural Karnataka.

Frost-Free Flow: Ensuring Year - Round Water Supply in Ladakh's Harsh Winters under Jal Jeevan Mission

- **Iftiqar Ahmed,** PHED Ladakh

Ladakh, a remote and high-altitude region in northern India, is known for its stunning landscapes, rich cultural heritage, and extreme weather. With winter temperatures plummeting below -30°C, maintaining a consistent water supply is a critical challenge. For years, Ladakh's inhabitants have struggled with freezing waterbodies, limited access to water, and the difficulties of managing water supply infrastructure in one of the harshest climates on Earth.

In response to these challenges, the Jal Jeevan Mission (JJM) launched in 2019 with the goal of providing safe and adequate drinking water to every rural household comes as a beacon of hope for the Ladakhis. In Ladakh, JJM has implemented innovative techniques to ensure the water supply remains uninterrupted during the harsh winters, including insulated pipelines, solar-powered pumps, and community involvement. This initiative, known as the Frost-Free Flow, represents a groundbreaking solution tailored to Ladakh's unique needs.

This article explores the innovative techniques under the Frost-Free Flow initiative, the socio-economic impacts on the region, and how these methods can serve as a blueprint for other cold regions globally.

Background and Challenges in Ladakh

Ladakh is geographically isolated, with its population dispersed across remote villages, often cut off from the outside world during the winter months. The severe cold leads to the freezing of surface water sources, and traditional pipelines often burst, leaving many communities without access to water. This situation significantly impacts daily life, from public health to education and economic activities. In addition, Ladakh's ambitions of becoming carbon neutral add an environmental dimension to the challenge, requiring water supply systems to be both resilient and sustainable.

Ladakh's unique environmental conditions necessitate a multi-faceted approach to water management. The goal is not only to supply water but to do so in a way that harmonizes with the region's ecological and climatic realities.

Innovations Under the Frost-Free Flow Initiative

The Frost-Free Flow initiative incorporates several groundbreaking techniques to ensure a continuous water supply in Ladakh. These include:

1. Insulated Pipelines and Solar-Powered Water Pumps

To prevent water from freezing, pipelines are buried below the frost line, which in Ladakh can extend as deep as 1.5 to 2 meters. These pipelines are insulated using advanced materials such as glass wool and aluminum jackets, which maintain water temperatures above

Figure 50: Key Plan of Water Supply Scheme at Nyoma Village | Source: PHED Ladakh

freezing even during the coldest months. The natural insulation provided by the earth, combined with artificial insulation, creates a robust system that ensures water flows continuously, without the risk of pipes bursting.

Solar energy, which is abundant in Ladakh, powers water pumps and maintains the temperature of storage tanks. Solar-powered systems not only ensure a reliable supply of water but also support Ladakh's carbon neutrality goals by reducing reliance on diesel generators. These solar systems are particularly beneficial in remote villages like Nyoma, where access to electricity is limited or non-existent.

2. Community Involvement

A key feature of the Jal Jeevan Mission is its emphasis on community involvement. Local residents are actively engaged in planning, implementing, and maintaining the water supply systems through the formation of Water and Sanitation Committees (WASCs). These committees oversee the operation of the systems, ensuring that water is equitably distributed and that resources are allocated efficiently.

Training programs have also been established to educate communities on the importance of water conservation, the maintenance of pipelines, and sustainable water usage practices. This engagement has fostered a sense of ownership and responsibility among Ladakh's inhabitants, contributing to the long-term success of the initiative.

3. Advanced Technologies and Geothermal Heat

In addition to insulation and solar energy, advanced technologies such as thermostat cables and geothermal heat are used to prevent freezing. Thermostat cables, which generate heat when the temperature drops, are installed along exposed pipelines, ensuring water remains in liquid form even in sub-zero temperatures.

In some areas, underground water storage systems leverage geothermal heat to maintain temperatures above freezing. This approach, which taps into the earth's natural warmth, has proven effective in keeping water flowing even during Ladakh's coldest months. The integration of geothermal energy complements solar-powered systems and reduces the need for external energy sources, making the initiative more sustainable.

4. Solar-Powered Water Supply in Nyoma and Drip System in Matho Village

The Frost-Free Flow initiative is exemplified in the water supply systems of Nyoma and Matho, two villages facing distinct water challenges.

In Nyoma, a village located at an altitude of 4,260 meters, pipelines are buried 1.7 meters below ground and connected to solar-powered pumps. This ensures a continuous water supply even in -30°C temperatures. The system is designed to provide water to 185 households, and the community plays a vital role in its operation, ensuring it runs smoothly throughout the year.

Matho, located at a lower altitude of 3,600 meters, has implemented a drip irrigation system for its domestic water supply, making it the first village in India to use this method for household water distribution. Drip irrigation is typically used in agriculture but has been adapted here to ensure that water is distributed equitably to all 375 households. The system is highly efficient, with water meters and pressure-regulating drippers installed at each household, ensuring that water flow is matched to the needs of each family.

Socio-Economic Impact of Frost-Free Water Supply

The Frost-Free Flow initiative has had a transformative socio-economic impact on Ladakh's rural communi-

Figure 51: Use of natural energy towards carbon neutral and to reduce O&M cost | Source: PHED Ladakh

ties. Access to clean and reliable water has improved public health by reducing the incidence of waterborne diseases such as diarrhea and typhoid. This has been particularly beneficial for children, who are the most vulnerable to these diseases, and has led to a significant decrease in healthcare costs for families. In addition, the availability of water has freed up time for women and girls, who previously spent hours each day collecting water from distant sources. This has enabled girls to attend school more regularly, contributing to improved educational outcomes and greater gender equality.

Water is also essential for agriculture and livestock rearing, which are the primary sources of livelihood for many in Ladakh. The year-round availability of water has helped boost agricultural productivity, ensuring that families can sustain their livelihoods even during the winter months.

Global Implications and Future Directions

The success of the Frost-Free Flow initiative in Ladakh offers valuable lessons for other cold regions facing similar challenges. The techniques employed in Ladakh—such as insulated pipelines, solar-powered water pumps, and community-driven maintenance—can be adapted to other high-altitude and cold-climate areas like the Himalayas, the Andes, and the Arctic.

The initiative also underscores the importance of sustainability and community involvement in the success of water supply systems. By aligning engineering solutions with the needs and capacities of local communities, the Jal Jeevan Mission has created a model that can be replicated in other regions.

Figure 52: Material transportation through rugged terrain
Source: Raga PHE & WS Division, Arunachal Pradesh Arunachal Pradesh

However, challenges remain, particularly in scaling these systems to other areas. High costs, logistical difficulties, and the need for ongoing training and technical support are all barriers to widespread implementation. Addressing these challenges will require continued innovation and a commitment to community engagement.

Conclusion

The Frost-Free Flow initiative under the Jal Jeevan Mission has successfully addressed one of the most pressing challenges in Ladakh: ensuring a reliable water supply during the harsh winter months. By combining advanced engineering techniques with sustainable practices and active community participation, the initiative has transformed the water supply landscape in Ladakh, improving public health, education, and livelihoods.

The success of the initiative not only holds significance for Ladakh but also for other cold regions around the world. By demonstrating the effectiveness of insulated pipelines, solar-powered systems, and geothermal heat, Ladakh's experience offers a blueprint for other regions looking to overcome the challenges posed by extreme climates.

As Ladakh continues to work toward its goal of becoming carbon neutral, the Frost-Free Flow initiative stands as a testament to the power of innovation, sustainability, and community-driven development. Through ongoing research and the sharing of best practices, the lessons learned in Ladakh will continue to inform global efforts to ensure access to clean and reliable water for all, regardless of geography or climate.

***Research Paper presented by Iftiqar Ahmed, PHED* Ladakh *in the International WASH Conference 2024 held by the Department of Drinking Water and Sanitation (DDWS) during the 8th India Water Week and article edited by Lopamudra Panda, NJJM.*

Empowering Communities for Water Sustainability through Behaviour Change Communication under the Jal Jeevan Mission

- **Torsha Dasgupta** (Manager), **Mirza Shadan** (Director) and **Kaushik Bose** (Vice President), Global Health Strategies

The Jal Jeevan Mission (JJM) has been transformative in driving India's ambition to deliver clean drinking water to rural households, achieving functional tap water connections for over 79% of households in the past five years. While infrastructure development has been essential, it is only part of the equation. The real success of JJM stems from the active participation and acceptance of communities in utilizing and maintaining this infrastructure. Behaviour Change Communication (BCC) strategies have been crucial in fostering this engagement, empowering communities to take ownership of water assets, and promoting sustainable practices. By aligning water management with local values and behaviours, BCC interventions have facilitated widespread uptake of JJM connections, demonstrating that infrastructure availability, coupled with community intent and responsibility, ensures the long-term success of JJM.

The following four main BCC intervention strategies have emerged as highly effective in driving the desired behaviour change for water management under JJM:

Process Interventions

These initiatives create structured opportunities for education and collaboration, empowering communities to actively identify challenges and develop solutions for managing their water resources.

In Jharkhand, the "Ratri Chaupal" initiative addressed the lack of community involvement in maintaining JJM assets. By organizing nightly community meetings and weekly walks with local officials, the intervention engaged residents in discussions about water conservation and infrastructure maintenance. The meetings strengthened local institutions, enhanced the community's sense of ownership over JJM assets, and promoted sustainable water management practices.

In Karnataka, a process-oriented approach addressed community distrust in water services stemming from a lack of understanding of the purification process. Regular bi-weekly tours of water treatment plants for community members, including schoolchildren, were organized to educate participants on water purification. This initiative

Figure 53: Awareness Rally in Kotri Schools on Water Issues

significantly enhanced perceptions of water quality and value, leading to increased trust and greater community involvement in water management decision-making

Cultural Interventions

These initiatives utilize local traditions and artistic expressions to convey messages about water conservation and hygiene, fostering a deeper emotional connection and promoting lasting behaviour change.

In Odisha, the challenge was raising awareness about household water connections and water contamination. By integrating traditional storytelling formats like Pala and Daskathia into JJM's information, education, and communication (IEC) activities, the campaign effectively used familiar cultural mediums to communicate the importance of clean water and infrastructure maintenance. This not only boosted awareness but also deepened community responsibility in maintaining the water systems.

In Chhattisgarh, traditional dance forms and folk songs were incorporated into BCC strategies, highlighting the benefits of clean water, sanitation, and hygiene. This culturally resonant approach ensured that key health messages were easily understood and retained by local communities, increasing their engagement in water conservation efforts.

In Uttar Pradesh, the "Tara Hai Taiyar" puppet show was developed to engage children and families. This interactive series covered topics such as water conservation, quality testing, and safe water handling in a fun yet educational manner. The show became a valuable tool for parents and educators, increasing awareness among children and their families while reinforcing water conservation practices.

Rewards-Based Interventions: Incentivizing Positive Behaviour

These initiatives leverage social recognition and incentives, such as certificates and community prizes, to motivate individuals and groups to adopt water conservation practices and consistently maintain water services.

In Gujarat and Andhra Pradesh, a rewards sticker system was introduced to address inconsistent payment of JJM water tariffs. Households that paid their water bills on time received stickers as social recognition, encouraging compliance and regular payments. This intervention fostered community pride and motivated non-paying households to follow suit, ultimately increasing overall revenue and contributing to the long-term sustainability of JJM services.

Across several states, the "Water Champions Awards" recognized households that demonstrated exemplary water conservation practices. These awards, presented by local governments, motivated other community members to adopt similar behaviours, creating a ripple effect that enhanced water conservation efforts.

In Madhya Pradesh, the Jal Jagrukta Puraskar recognized schools and community groups for their contributions to water management. This formal acknowledgment encouraged the continued participation of these institutions in water-saving activities, particularly rainwater harvesting and reducing water wastage.

Game-Based Interventions: Learning Through Play

These initiatives employ interactive games and performances to educate communities about water management, making learning engaging and enhancing understanding of essential conservation practices.

To emphasize the link between water quality and health, an interactive Snakes and Ladders game was introduced in multiple states. The game visually demonstrated how good water practices lead to positive health outcomes, while poor practices resulted in negative consequences. This engaging approach not only increased community interest in water quality testing but also encouraged water conservation through activities like rainwater harvesting.

In Uttar Pradesh, a magician performed instant water quality tests as part of a magic show, combining entertainment with education. This novel approach captured public attention and raised awareness about water quality issues, improving perceptions of JJM infrastructure and increasing community involvement in maintaining water systems.

A closer examination of these BCC initiatives reveals key common threads contributing to their effectiveness. Community ownership is foundational, with local champions—such as women, youth, and tribal leaders—driving BCC efforts and ensuring initiatives resonate with their communities. Culturally relevant communication enhances acceptance and engagement by tailoring activities to local languages, traditions, and values. Peer learning has also thrived, with successful BCC models replicating across villages to amplify impact. Finally, partnerships with NGOs, schools, and local governance structures foster collaboration and ensure the long-term viability of BCC initiatives under JJM. Together, these elements form a strong foundation for successful community-led water management in India.

Events & Webinars

National Workshop on WASH Visioning

Smt. Vini Mahajan, Secretary, DDWS; chaired the "National Visioning Workshop for WASH" on 28.10.2024 at Bharat Mandapam, New Delhi to discuss the way forward strategy to overcome challenges in SBMG and Jal Jeevan Mission with States and UTs. Sh. Ashok K K Meena, OSD-DDWS and senior officials from States/ UTs were present during the workshop. Sh. Jitendra Srivastava, JS&MD-SBMG welcomed all the ACSs/ Principal Secretaries, Mission Directors from States and UTs.

Context setting of the workshop done by Sh. Chandra Bhushan Kumar, AS&MD-NJJM. Shri Ashok K. K. Meena, OSD-DDWS; in his opening remarks stated the importance of communication for behavior change and urged to focus on operations & maintenance of SBMG & JJM assets. Smt. Vini Mahajan, Secretary DDWS shared her Guidance & Directions for upcoming challenges in both the programs with respect to on-ground situations in State and UTs. She stressed upon the importance of convergence in WASH sector and appreciated the efforts made by States in last 3 years.

AS&MD, NJJM made a brief presentation on "IEC strategies for JJM" to be taken forward for more effective on-ground implementation of Jal Jeevan Mission by reaching field functionaries and meeting the communication expectations with bottom-up-approach. JS&MD-SBMG presented the progress and Issues of States and UTs concerning FY 2024-25. He stressed on working towards sustainability of the SBMG assets and expediting the utilization of SBMG funds as well as other funds like 15th FC and MGNREGA for O&M and individual assets. The workshop was attended by States and UTs, ACSs/ Principal Secretaries and SBMG & NJJM Mission Directors along with their teams attended the workshop. From DDWS, Directors and Deputy Secretaries of SBMG & NJJM along with National PMUs and Technical teams attended the workshop.

DDWS and J-Pal, South Asia signed an MoU

Marking a crucial step towards strengthening the drinking Water & Sanitation services in rural India, Department of Drinking Water & Sanitation, Under Ministry of Jal Shakti and J-PAL South Asia signed an MoU on 25th October 2024 at CGO Complex, New Delhi. The MoU was signed by Sh. Y. K. Singh, Director-NJJM and Ms. Shobhini Mukerji, ED-JPAL, South Asia.

Smt. Vini Mahajan, Secretary; Sh. Ashok K K Meena, OSD; AS&MD-NJJM; JS&MD-SBMG and other officials from DDWS joined the exchange ceremony. From J-PAL, Director, Policy and other officials were also present.

Partnership review and planning meeting with UNICEF

Smt. Vini Mahajan, Secretary; and Sri Ashok K K Meena OSD, DDWS chaired a meeting to review the progress & planning with UNICEF India on 17.10.2024 at CGO Complex, New Delhi.

During the meeting, Secretary, DDWS laid emphasis on prioritising to conduct impact studies in WASH sector. OSD-DDWS stressed upon focusing on activities at community level and hosting capacity building modules, across different platforms.

Further, Mr. Paulos Workneh, Country Head and his team UNICEF India presented the key achievements made in 2024 and key priorities for 2025-27 under Water, Sanitation and Hygeine. Meeting was attended by AS&MD-NJJM, JS&MD-SBMG, JS-Water & other officials from DDWS and UNICEF India.

Visit of Secretary, DARPG to DDWS

Sh. V. Srinivas, Secretary, DARPG; had fruitful discussion with Ms. Vini Mahajan, Secretary, and Ashok K K Meena, OSD, DDWS; during his visit to Pt. Deendayal 'Antyodaya' Bhawan, CGO Complex on 15.10.2024 to review the ongoing Special Campaign and way forward.

Secretary, DDWS shared her experience of Swachhta Hi Seva2024 campaign and outlined valuable suggestions with regard to Special Campaign 4.0. Further, Secretary., DARPG; visited Crèche run by DDWS at office premises. Shri Ashok K. K. Meena, OSD, DDWS, and senior officers from both the departments were present.

Visits

Visit of AS &MD, NJJM

Dr. Chandra Bhushan Kumar, AS & MD-NJJM visited villages of Ch. Sambhajinagar, Dhule and Nandurbar district, Maharashtra from 05.10.2024 to 06.10.2024, to review and see the progress made under Jal Jeevan Mission in the State. He visited Retrofitting scheme site at Babare Tal, District Dhule and instructed to commission the scheme by November, 2024. He was accompanied by EE, RWS, Dhule. Further, he interacted with on-site engineers, workers, local village communities, pump operators, GP officers, and members of Pani Samitis to understand the impacts made in their villages. JJM is also assisting public institutions for drinking water supply. The UNESCO World Heritage site Ajanta caves are having drinking water supply facilities for the visitors with the support of JJM. AS&MD-NJJM reviewed the facility. He was accompanied by the district officials.

Visit of OSD, DDWS

Shri Ashok K K Meena, OSD, DDWS visited the MVS and SVS schemes of Jal Jeevan Mission in Mandya district and MRF unit in Ramanagara district of SBMG, Karnataka on 04.10.2024 to assess the progress of ongoing projects. He was accompanied by senior officer from the State. On day two of his Karnataka State visit, he had a brain storming session on Jal Jeevan Mission with the JJM Chair Professor Chair at IIM, Bengaluru.

Important Days & Milestone of the Month

Har Ghar Jal
Jal Jeevan Mission

Jal Jeevan Samvad

Follow, like and subscribe

Jal Jeevan Mission, India
@jaljeevan_
Jal Jeevan Mission
@jaljeevanmission
jjm.gov.in
Jal Jeevan Mission

Government of India
Ministry of Jal Shakti
Department of Drinking Water & Sanitation
National Jal Jeevan Mission
New Delhi - 110 003
e - mail: rnd-ddws@gov.in