From loans to lasting impact:

The heath, gender and economic impacts of water and sanitation loans in rural India

Executive summary

Access to safe water, sanitation, and hygiene (WASH) remains a critical challenge for rural India, impacting health, education, productivity, and overall well-being. Despite numerous government and NGO-led initiatives, many rural households continue to face infrastructure and financial barriers to establishing essential WASH facilities. In recent years, financial institutions have emerged as transformative actors in this space, bridging the gap between need and access through innovative credit models.

In 2023, a small finance bank in rural India partnered with non-profit organization Water.org for a three-year initiative to integrate water and sanitation into its portfolio, aiming to improve access to safe water, raise awareness of poor sanitation, and enhance overall quality of life of its clients. The bank launched the WATSAN loan for their self-help group members to improve access to safe drinking water and sanitation hygiene by supporting the creation of low-cost infrastructure improvements for its customers.

Together, the partnership addressed a critical financing gap, enabling low-income households to translate unmet demand into household-level investments in safe water and sanitation infrastructure, resulting in increased access to safe water and sanitation for **more than 300,000** people in two years.

This learning brief presents the findings from an impact assessment which evaluated the WATSAN loan product implemented under the WaterCredit model.

Partnership overview:

- Start date: September 2023
- Location: West Bengal, Kerala, and Uttar Pradesh
- Technical assistance provided: developing borrower-facing WASH materials, strengthening staff capacity through training, loan performance analytics

Impact assessment:

- Date conducted: May-July 2025
- Methods: mixed-methods, structured surveys and in-depth interviews
- Study focus: examine how bank-led WASH lending shapes community hygiene practices, advances women's empowerment, safety, and economic productivity, and improves household health and well-being.

Partnership results:

- Loans disbursed: 90,662
- People reached: 398,912
- Capital mobilized (USD): $61,204,525

Introduction and background

In India, out of a population of 1.4 billion people, 342 million people lack access to safe water and 539 million lack access to a safe toilet.[1] Rural areas often face lower rates of access than urban and communities,with rural populations consistently 15–25 percentage points behind access to safely managed services.[2] These gaps often force households to rely on shared or inadequate sanitation facilities, open defecation, or time-intensive water collection, with direct implications on their health, safety, and economic productivity. Despite differing geographic and socio-economic contexts, the states of West Bengal, Kerala, and Uttar Pradesh face similar challenges in terms of access for their rural and lower income populations.

A key constraint underlying these challenges is the lack of affordable financing for small, household-level investments. These challenges created an opportunity for collaboration between Water.org and a small finance bank with an established microfinance platform serving low-income, financially underserved populations, primarily women, informal workers, and small entrepreneurs.

In September 2023, the two organizations partnered to integrate water and sanitation (WATSAN) loans into the bank's group lending portfolio using the WaterCredit model.[3] The bank delivered these loans through its branch network across West Bengal, Kerala, and Uttar Pradesh, while Water.org provided technical assistance to strengthen and scale the loan product. This included developing materials to raise borrower awareness on WASH and available loans, strengthening internal capacity by training leadership and field staff on WASTSAN products, and providing ongoing business analytics to assess loan performance, refine products, and support the integration of WATSAN loans as a mainstream offering.

Study objectives

A 2025 impact assessment on Water.org's intervention with the small finance bank captures the multidimensional impact of water and sanitation loans going beyond infrastructure installation to understand behavioural, social, and economic transformations at the household and community level.

The assessment was designed to generate insights into how bank-delivered WSS loans affect the lives of borrowers and their families through the following objectives:

- Assess how bank-led lending for water, sanitation, and hygiene (WASH) influences community awareness and hygiene practices.
- Examine the impact of improved WASH access on women's empowerment, safety, and economic productivity.
- Evaluate the broader effects of household access to safe water and sanitation assets on health and overall well-being.

The assessment covered borrowers in West Bengal, Kerala, and Uttar Pradesh—states with differing socio-economic and infrastructure contexts.

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[1] Water.org, "The Water Crisis in India."

[2] WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene. (2025). *Progress on household drinking water, sanitation and hygiene 2000–2024*. UNICEF Data. https://data.unicef.org/resources/jmp-report-2025/

[3] WaterCredit is a market-based solution that enables financial institutions to provide affordable loans for household water and sanitation solutions. The model supports partners through technical assistance, product development, capacity building, and demand generation, enabling low-income households to access financing for improvements such as toilets, water connections, storage facilities, and other WASH-related assets.

Methodology

A mixed-methods approach combined quantitative and qualitative research across West Bengal, Kerala, and Uttar Pradesh. Quantitative data were collected through structured surveys with 277 women borrowers (December 2024–February 2025) to assess loan utilization, WASH access, health, hygiene, and socio-economic outcomes. Qualitative insights were gathered through in-depth interviews with bank representatives and focus group discussions with women borrowers. Findings from both components were triangulated to provide a comprehensive assessment of program implementation and impact.

Study findings

Overall, the WATSAN loan program has delivered strong social and financial results, particularly in improving household infrastructure, women's well-being, and repayment outcomes. Women borrower's experience with WASH loans was positive, timely and accessible reflecting a straightforward loan process. During the Project Monitoring Visit (PMV), 91% of 264 respondents reported receiving their loan within a week of application, while the remaining 9% received it within two weeks. In West Bengal, loans were often disbursed within a day, sometimes the same day for existing customers. In Kerala and Uttar Pradesh, the process typically took two to three days, reflecting efficiency across regions.

Ease of application was another positive feature. Of 268 respondents, 86% reported no difficulty, 13% found the process somewhat difficult, and less than 1% reported major challenges. Women noted that only basic KYC (Know Your Customer) documents were required, alongside verification of repayment capacity and[4] scores. Importantly, 87% of borrowers said the loan amount fully covered their WASH improvement costs. Construction and implementation were also smooth: 90% of 269 respondents faced no issues and offered clear suggestions for program improvement. Construction challenges and suggestions of improvement are detailed in Table 1.

Table 1: Construction challenges and suggestions for program improvement

Construction challenges	**%(n=269)**
Face no construction issues	**90%**
Reported construction challenges	**9% (n=24)**
- Insufficient funds	**77%**
- Difficulty in transporting materials	**73%**
- Water scarcity	**63%**
- Material shortages	**59%**
- Shortage of masons	**50%**

Suggestions for improvements	**%(n=269)**
Larger loan amounts	**75%**
Lower interest rates	**56%**
Construction support	**21%**
Longer repayment periods	**18%**
No changes needed	**13%**

[4] CIBIL (Credit Information Bureau India Limited) score is a three-digit credit score (ranging from 300 to 900) that reflects an individual's creditworthiness based on their borrowing and repayment history. It is widely used by Indian financial institutions to assess loan eligibility and repayment risk.

Borrowers primarily utilized WASH loans for household water and sanitation infrastructure. The findings from the quantitative assessment with 277 women borrowers reveals high loan utilization with 97% borrowers using loans for the intended purpose. A majority (77%) invested in sanitation infrastructure, 13% in water infrastructure, while 9% used the loan for a combination of both. This targeted utilization indicates a strong alignment between borrower demand and the design of the WASH financial product. The study also revealed that 88% of sanitation facilities and 100% of water infrastructure were fully operational and in regular use. Importantly, 87% of sanitation loan recipients and 79% of water loan recipients were able to install the infrastructure within their own premises, enhancing convenience, privacy, and safety, especially for women and children. Nearly all borrowers (97%) who invested in water improvements reported that the infrastructure met their household needs adequately. Overall satisfaction levels with the loan-financed WASH improvements were high among respondents. However, qualitative insights from focus group discussions (FGDs) and in-depth interviews highlight an important caveat: a notable proportion of borrowers reported that the loan amount was insufficient to fully realize their intended construction goals or to procure high-quality materials.

Integrated awareness activities with borrowers strengthened health, hygiene, and sanitation knowledge. As part of the borrower engagement strategy, educational activities on financial literacy, health, hygiene, and sanitation were integrated into the loan program. Among participants, 89% engaged in financial literacy sessions, while 69% took part in health and hygiene education. The hygiene sessions covered safe water and sanitation practices, handwashing, food hygiene, prevention of waterborne diseases, open defecation risks, and safe water storage. Bank officials emphasized that these were not one-time trainings but part of an ongoing relationship with borrowers, reinforced through monthly meetings and awareness campaigns. They also noted that younger community members increasingly engaged with these activities, contributing to rising household demand for improved WASH facilities.

Importantly, the integration of WASH and financial education created a synergistic effect. Borrowers were not only better informed about hygiene practices but also empowered to act on this knowledge through improved financial decision-making. This dual approach reflects emerging best practices in WASH microfinance, where lending institutions increasingly combine financial services with education to enhance sustainability and impact.

Improved hygiene and sanitation practices followed WASH loan uptake indicating behavior change. Among borrowers, 83% reported that handwashing became easier after the installation of WASH facilities, while 82% noted improvements in daily activities such as bathing and brushing. Similarly, 80% found food preparation and 77% found laundry and cleaning more manageable. A small proportion (1.6%–3.3%) experienced greater difficulty, often due to taps placed outside the home, requiring continued manual collection.

Qualitative insights reinforced these outcomes. In West Bengal, women described time-consuming multiple trips and long queues before the intervention; improved facilities led to significant time savings and reduced stress. In Kerala, reliance on neighbours previously caused discomfort and social strain, while new facilities restored autonomy and dignity. In Uttar Pradesh, reliance on panchayat pumps or government schemes was common, with quality concerns persisting.

Improved access also influenced hygiene behaviours: 32.7% of respondents reported washing hands more frequently, though 28.3% reported a decline and 37.9% saw no change. Overall, the findings suggest that infrastructure improvements enhanced ease of hygiene routines and, for many households, supported more consistent handwashing practices.

WASH loans contributed to better household health and lower illness.
To understand how WASH loans have impacted the health of the borrowers and their families, they were asked about the observed changes in the family's health. The majority of the borrowers (83%) reported observing improved health, indicating a positive impact. Diseases such as diarrhoea, typhoid, dengue, chikungunya, and skin and eye infections were cited as having declined, underscoring the health impact of improved WASH services.

Furthermore, to understand the implications, borrowers were asked how frequently household members fell ill now compared to before receiving the loans. More than half (65%) reported that household members fell sick less often after the facility improvement. Finally, 77% of borrowers reported a decrease in out-of-pocket expenditure on illnesses related to poor water and sanitation.

WASH loans enhanced women's empowerment, household well-being, and economic participation. Women played a central role in loan uptake and infrastructure choices, with 66% of decisions made jointly and 19% by non-borrower women. While spousal consent was still required in some states, women's growing financial agency reflects a shift in traditional norms. Beyond infrastructure, loans enhanced safety, and autonomy: over half of sanitation borrowers reported greater privacy and security, while 88% of women reported full autonomy in sanitation use, versus 31% earlier reflecting empowerment. Safety and dignity were also key motivators, with 51% of sanitation borrowers reporting increased safety and 87% improved dignity and social status.
As summarized in Table 2, WASH loans also contributed to improved social pride, well-being, and children's educational participation. Substantial time savings from reduced water collection and easier sanitation access allowed women to redirect time toward household tasks, leisure, education, and income generation. Time savings from water collection reduced from 23 to 2 minutes per trip. Women redirected this time to domestic chores, education, leisure, and income generation.

The study found the economic impacts to be significant, with 13% of water loan borrowers starting new enterprises, 5% expanding existing ones, and 55% reporting higher income. These shifts led to an average monthly household income gain of ₹11,379 ($118).

Decision making and voice

66%

Loan decisions made jointly

19%

Loan decisions made by non-borrower women

Why families borrow

59%

Motivation: health improvement

27%

Motivation: cost savings

16%

Motivation: dignity

15%

Motivation: safety

Well-being and dignity

51%

Improved safety / privacy

88%

Autonomy in sanitation use

87%

Improved dignity / social status

84%

Better overall well-being

Children's outcomes

62%

Improved school attendance

62%

More time to study

Time and economic impact

23min – 2min

Reduction in water collection time per trip

13%

New water-related income activities

73%

Women / girls involved in enterprises

55%

Borrowers reporting increased income

Conclusions and implications

This study demonstrates the multifaceted impacts of WASH loans on health, hygiene, gender relations, time use, and economic participation in India. Women emerged as key actors in both the uptake and utilization of WASH loans, influencing critical household decisions and leveraging improved infrastructure to reclaim time, pursue livelihood opportunities, and participate more fully in social and economic life. The time saved from daily water collection and reduced dependency on unsafe sanitation options translated into increased school attendance for children, especially girls.

The findings also suggest that financial institutions can play an important role in expanding access to essential WASH services while contributing to women's economic participation and household resilience. Integrating borrower education with affordable financing appears to strengthen both infrastructure adoption and sustained behavioural change.

Beyond physical infrastructure, the intervention contributed to significant shifts in behaviour, awareness, social norms and economic changes, reinforcing global evidence on the intersection of WASH and financial inclusion.

Despite these gains, challenges included insufficient loan amounts, spousal consent requirements, and infrastructure placement issues. Addressing these through flexible finance, technical support, and gender-sensitive norms, is critical for sustainability.

To maximize long-term impact, future WASH lending programs should consider aligning loan amounts with actual construction costs, strengthening technical support during implementation, and embedding longer-term monitoring of health, gender, and socioeconomic outcomes. Partnerships between financial institutions, development organizations, and government agencies can further strengthen the effectiveness and scalability of WASH financing models, contributing to improved household well-being and progress toward universal access to safe water and sanitation.

This study provides compelling evidence that water and sanitation loans, when effectively implemented through inclusive microfinance models, can catalyze a wide range of social, health, and economic benefits for low-income households. These benefits highlight the broader ripple effects of household-level WASH improvements on community well-being and intergenerational development.

How a sanitation loan improved one family's safety

For years, Manju's only bathroom was outdoors, unsafe to use after dark, and nearly unusable when monsoon floods rose from a nearby stream. With two young daughters to protect, she and her husband bought their own plot of land in Cherthala, in the Indian state of Kerala, determined to build a home with a safe, private bathroom of their own. After learning about the small finance bank through a friend, Manju chose to take out a loan primarily because of its low interest rates, monthly repayment options, and the ease of digital payments. Their loan was approved in about a week, covering the plumbing, tiles, and shower she needed to complete the bathroom.

Today, Manju's daughters have a safe bathroom next to their room, offering peace of mind and saving the family time in their daily routine, especially on nights when their father is away working. The bathroom also brought comfort during her mother's final years, easing the challenges of caring for a parent with serious health issues. Now, with newfound stability, Manju hopes to restart the small fish pickle business she'd once had to put on hold.

"During the rainy season and high tides, the water level rises, making it difficult to use Indian-style toilets. So, we installed European-style toilets instead."

— **Manju,** WATSAN borrower, small finance bank client