

## Executive Summary

### About the Study

Water.org seeks to increase its partner base of MFIs in South Central India to expand outreach and meet the needs of the poor for safe water and sanitation facilities. This report will act as a guide for Water.org to expand its partner base in South Central India (Maharashtra, North Karnataka and Madhya Pradesh) by addressing the following key questions:

1. What is the overall macro and policy environment around water and sanitation?
2. What is the state of water and sanitation infrastructure in terms of usage patterns, accessibility of sources, sustainability, quality and affordability for the clients of select MFIs operating in the region?
3. What is the capacity of MFIs and expertise available to scale up WaterCredit?

### Policy Environment and Macro-Level Status for Water and Sanitation

The Indian Constitution places water in the list of subjects for which states are responsible. Governments, at both the centre and states, have made several efforts on the policy front to address the issue of better managing water resources. Over the years, there has been a shift in Government policy and from a top-down, supply driven model it has moved to a bottom-up, demand driven and cost recovery model where the community pays part of the capital cost and is responsible for operation and maintenance of resources. Incorporation of behavioural aspects of low-income households towards water and sanitation is a key component in all existing water and sanitation schemes like *Swajaldhara*<sup>1</sup> and Total Sanitation Campaign (TSC).<sup>2</sup>

The Government's investment in water and sanitation is increasing, but results are not commensurate with the efforts. This is partly because of hydro-geological issues and partly due to poor programme implementation. Data

<sup>1</sup> *Swajaldhara* is a scheme launched by the Government of India and state Governments to carry further the reform principles in water using people's contribution for building and O&M

<sup>2</sup> TSC is a comprehensive programme to ensure sanitation facilities in rural areas with broader goal to eradicate the practice of open defecation. TSC gives strong emphasis on information, education and communication (IEC), capacity building and hygiene education for effective behaviour change with involvement of PRIs, CBOs, and NGOs.

from the Planning Commission in a countrywide study suggests that more than 10% of the habitations slipped back to a position where people do not have adequate water to drink and have to walk for more than 2 kilometres to fetch potable water. In addition, another 13% habitations are dependent on contaminated water supply, which in-turn leads to a wide variety of well-documented health problems.

In the three states covered under this research, about one-sixth of the population is still uncovered by water related schemes/programmes. Similarly more than half the households in the three states do not have a private latrine.

### Demand-side Findings on Water

Based on the source of water as defined by point of access, it emerged in 47% of the sessions that respondents' access water directly from underground sources like well, bore wells and hand-pumps. The second most common source was piped connection (35%) supplied by local authorities (*panchayats*, municipalities etc.). Surface sources (river, waterfall, and lakes) and market-based sources (tankers, packaged water) emerged as the primary source in 9% of the sessions.

Further, in two-third of the sessions, the respondents reported that they procure water from public sources that included piped connections, hand-pumps, *panchayat* wells etc. In about one-fifth of the sessions, respondents reported to have accessed water from a source/point owned by a private entity. In around half of the sessions, respondents reported to have had inadequate supply of water. Of these, one-fourth complained of inadequate access throughout the year. In close to one-fourth of the sessions, respondents said that they have to travel for more than 10 minutes to procure water and time spent in procuring water is more than 2 hours every day.

In close to 80% of the sessions, respondents were satisfied with the overall water quality. Further, in more than two-third sessions, respondents mentioned that they adopt primary purification methods like cloth sieve, boiling etc. as the dominant filtration / purification method. Close to one-fourth employ advanced filtration

methods like water purifiers, chlorine solutions etc. However, many respondents reported prevalence of water-borne diseases during rainy seasons resulting in substantial medical expenses.

In the majority of sessions, respondents discussed ways to mobilise funds for acquiring water-assets, clearly signifying the need for innovative financing mechanism in the water and sanitation space. In many sessions (39%), respondents were unanimous that they would be able to acquire water related assets if some external financial support (in form of a back-ended subsidy or a soft loan) was provided to leverage equity contribution that they were willing to make.

### **Demand-side Findings on Sanitation**

As many as 64% respondents did not have in-house toilet. Reasons cited were limited space in the house, lack of funding and poor drainage facilities. Lack of financial resources emerged as the most frequent response amongst people who continue to defecate in the open, followed by scarcity of water' and lack of space.

About 28% of the respondents used community and shared toilets. The people using them were generally dissatisfied due to issues like poor hygiene, limited access hours, inconvenience to the aged and sick. In many places, with no one to take clean the toilets, they have fallen into disuse.

Around 85% people said that there was a need for private latrines. The key reasons cited in favour of private latrines were the fast dwindling open spaces and inconvenience associated with open defecation and unhygienic public toilets. Most respondent believe that construction of toilets had an overall positive effect on household's quality of life. Notwithstanding the constraints such as lack of space and poor drainage, the respondents are willing to mobilise financial resources to improve sanitation facilities.

*Refer the attached table for a more detailed (state-wise) analysis of findings.*

For both water and sanitation, besides presenting the results of the market research, the report contains analysis of the prevailing situation in the areas visited. Some very interesting and

intriguing concerns are presented in the form of case-lets.

### **Supply Side Findings- Possible Roles for Microfinance Institutions (MFIs)**

All the MFIs acknowledged the need for credit products for water and sanitation underlining the fact that MFIs have to enhance their role from microcredit supplier to providers of holistic financial services. Many believed that although their commitment is to provide direct financial services to the clients, they would be interested in providing water credit products to improve the quality of life of their clients. MFIs also expressed the opinion that they are ready to earmark a certain portion of their portfolio for water credit products, but will need support in demand estimation, in designing appropriate products, processes and systems and in accessing funds. They also expressed a strong need for creating awareness amongst clients to use safe water and access improved sanitation facilities.

In the end, the report outlines, for each of the three states, the key factors that Water.org and its partner MFIs must consider as they launch financial products for water and sanitation. Specifically:

1. Are the hydro-geological factors in the intervention area enabling the launch of financial products for water and sanitation?
2. Is there a scope for the MFI to collaborate with Government and/or private sector programmes?
3. Has the MFI taken a holistic view of the water and sanitation scenario in the area?
4. Is the existing level of water and sanitation infrastructure above a threshold that encourages private investment?
5. Is the present water and sanitation infrastructure in active use?
6. Is the local political environment conducive for long-term sustainability of the programme?
7. Does the MFI have staff trained in marketing of financial products for water and sanitation?
8. The MFI should not be aiding the creation of a monopolistic water market to the detriment of the poor in the region.
9. Some key product design variables for water and sanitation financing

**Key Findings-Water**

Parameters	Issues investigated	Maharashtra	Karnataka	Madhya pradesh
<b>Macro</b>	N/a	Nearly 26% of the population gets less than the 40 lpcd <sup>3</sup>	Nearly 60% of the population gets less than the 40 lpcd	Nearly 18% of the population gets less than the 40 lpcd
<b>Source and ownership</b>	<ul style="list-style-type: none"> <li>✓ Available sources of water (for both drinking and non-drinking purposes)</li> <li>✓ Provider agency</li> <li>✓ Seasonality in terms of availability</li> </ul>	In both urban and rural areas, people largely depend on government supply. However, they adopt various methods to augment the supply as it is inadequate. Use of private bore wells by economically better off is common. Poor and villagers in hydro-geologically difficult terrains are dependent on open sources like lake, river etc.	Water is supplied by an overhead tank through a network of pipes. Both villages and cities have either a piped connection or a stand-alone water tank with taps. There are government hand-pumps in both urban and rural areas. In rural areas, water is collected from private bore-wells, open wells, or from surface sources like ponds or rivers.	In urban areas, <i>nagar nigams</i> provide piped water supply. In summer months, supply through water tankers is common. In rural areas, hand pumps are the primary source followed by open sources. Though in some villages (two of the 5 surveyed villages) piped water supply is also available
<b>Sustainability</b>	<ul style="list-style-type: none"> <li>✓ Ability to meet their household's daily requirements</li> <li>✓ availability of year-round supply</li> <li>✓ Coping mechanisms during times of shortage</li> </ul>	Most areas face severe shortage of water during summer months as water sources dry up. This triggers emergence of water markets and water becomes a dear commodity.	People face severe shortage in summer. In rural areas, collective action in the community prevents distress. However, in urban areas, people have to pay for water supplies.	In urban areas, people depend on tankers for their supplies, which is very inconvenient. However, in rural areas situation is marginally better due to access to multiple sources such as hand-pumps, lakes and bore-wells.
<b>Access and cost</b>	<ul style="list-style-type: none"> <li>✓ Distances travelled and time taken to reach the sources</li> <li>✓ Difficulties faced in procuring water</li> <li>✓ Who collects water in a household</li> <li>✓ Cost (both direct and the opportunity cost) of</li> </ul>	Usually women and youngsters are involved in water procurement. Access and procurement takes anywhere between an hour to 4 hours per day. During summers, almost half a day goes in sourcing water in some of the water scare villages. Piped water connections cost around Rs.2,000 per annum besides	Usually women are involved. <i>Panchayats</i> and municipal corporations charge monthly user charges that range from Rs.25 to Rs.120. People also incur cost in building storage tanks.	Women and children are involved in procurement. In rural areas, with public and open sources up to 2 hours are spent every day in procurement of water. In villages, piped supply costs roughly Rs.40 per month. In urban/semi-urban areas,

3 As prescribed by the Rajiv Gandhi National Drinking Water Programme

	<ul style="list-style-type: none"> <li>✓ procuring water</li> <li>✓ Effect on overall well being of a household</li> </ul>	<p>an upfront cost in putting up the connection. Water markets charge anywhere between Rs.30 to 50 a barrel and Rs.300 for a 6,000-litre water tanker.</p>	<p>people with access to piped connections pay Rs.50 to municipal corporations. During summers, they largely depend on tankers due to inadequate supply.</p>	
<b>Quality</b>	<ul style="list-style-type: none"> <li>✓ Perception of water quality</li> <li>✓ Awareness on importance of pure water;</li> <li>✓ Steps taken to purify water</li> <li>✓ Commonly occurring waterborne diseases</li> </ul>	<p>Government of maharashtra has mandated a quality check of all public sources of water. Further, water supplied by <i>panchayat</i>, municipal bodies is perceived to be clean. <i>Panchayats</i> provide chlorine tablets and water disinfectant solutions. People use cloth sieves and alum sticks but the awareness on usage of pure water is picking up leading to an increase in demand for water filters. Diseases such as diarrhoea, dengue and chicken guinea are common especially during summer season</p>	<p>Contaminants like arsenic, fluoride and nitrate are common. Occurrence of water-borne diseases like chicken guinea, jaundice, diarrhoea and malaria is common. Use of water filters amongst economically better off and educated households is high. However, in rural areas, use of cloth sieves is common, as water drawn from hand pumps is considered non-potable.</p>	<p>In urban areas, respondents were satisfied with the quality of piped water and hand pumps, though heavy amount of dissolved fluoride in water sample has been reported in some of the wards<sup>4</sup>. In rural areas, water from hand pump is considered potable though the quality deteriorates during rainy season.</p>
<b>Willingness and ability to pay</b>	<ul style="list-style-type: none"> <li>✓ Criticality assigned to proximate, adequate and clean drinking water;</li> <li>✓ Impact of time wasted in water procurement on the finances of their household; and</li> <li>✓ Fund planning in cases where they wish to buy assets that would improve water supply – quantity as well as quality</li> </ul>	<p>The first need was for adequate supply and towards this; people were willing to invest their money or pool funds to improve supply. In places where supply was adequate but of poor quality, people are willing to buy filters. However, in many cases, ability and willingness to pay exist, but there isn't an easy solution to their supply problems due to extraneous factors like hydro-geology, local politics etc.</p>	<p>In urban and peri-urban settlements, there is a great demand for piped connections and people are willing to pay for it, provided they get clearances from the municipality and get a loan that they can repay in affordable instalments.</p>	<p>For people living in settlements at the urban fringes, piped connection is needed and they would be interested in taking loan repayable in small instalments. In rural areas, many expect the government to provide access to water and are not willing to invest their money.</p>

<sup>4</sup> In Jabalpur

**Key Findings- Sanitation**

Parameters	Issue investigated	Maharashtra	Karnataka	Madhya pradesh
<b>Macro</b>	N/a	Nearly 50% of the households have private toilets	Nearly 43% of the households have private toilets	Nearly 49% of the households have private toilets
<b>Usage of sanitation facility</b>	<ul style="list-style-type: none"> <li>✓ Existing facilities used</li> <li>✓ Their preference and</li> <li>✓ Reasons for usage/non-usage</li> </ul>	82% of respondents used toilet facilities. Only 18% continue to defecate in the open for reasons such as scarcity of water, faulty design of toilets, lack of funds and behavioural issues.	44% continue to defecate in open. The reasons being lack of funds, lack of space in the house, poor drainage system in the area and scarcity of water.	40% respondents in urban areas and 80% in rural areas defecate in open. This is in spite of acknowledgement of problems related to open defecation by respondents.
<b>Motivation for improved sanitation facility</b>	<ul style="list-style-type: none"> <li>✓ Awareness related to sanitation issues;</li> <li>✓ Motivation behind adoption of improved sanitation facility</li> </ul>	With its features of awards and penalties, <i>sant gadge maharaj</i> sanitation scheme' along with the tsc had a positive impact and has improved sanitation in rural areas	Women perceive open defecation as a major issue because of psychological discomfort associated with it.	Practice of open defecation is deeply rooted in rural area and changing it will be a big challenge. In urban areas though, people are aware about ill effects of open defecation
<b>Willingness and ability to pay</b>	<ul style="list-style-type: none"> <li>✓ Need felt for improvement in services</li> <li>✓ How much would they be willing to pay</li> <li>✓ the plan to mobilise resources</li> </ul>	There is a huge demand for loans for construction of toilets in both rural and urban areas. In fact, borrowings from bank and shgs for toilet construction are very common.	There is high demand for loans for toilets. However, such loans should be of longer tenure (min. 3 years), so that clients find them affordable.	There is a strong demand for toilet in urban areas. People are willing to borrow. On the other hand, demand is comparatively less in rural areas. At the same time, rural respondents wanted some kind of subsidy from the government for toilet construction.