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2014

## BEYOND THE PIPE FORUM: PARTNERING FOR SUSTAINABLE SCALE IN COMMUNITY SAFE WATER SOLUTIONS

### FORUM OVERVIEW



#### FORUM SPONSORS:



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# THE NEED

**Despite a concerted push by various states and the central government towards potable water access, only 32% of the population in India has access to treated safe water.<sup>1</sup>**

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WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation reported in 2013 that 92% of Indians had gained access to improved<sup>2</sup> water sources. The Indian government's efforts in this regard have been monumental with investments of thousands of crores in setting up about 40 lakh (4 m) hand pumps and 2 lakh (200,000) pipe water schemes to ensure water access. However, the 2011 Census indicated that 42% of piped rural connections deliver untreated water. UNICEF revealed in 2013 that about 450 children under the age of five die every day in India due to unsafe water and inadequate sanitation<sup>3</sup> and others estimate that about 38 million people in India fall ill annually due to water borne diseases. Ministry of Drinking Water and Sanitation (MDWS, erstwhile Department of Drinking Water and Sanitation) had informed the sector in 2008 that at a national level India had witnessed a 30% slippage of fully covered habitations to partially/not covered habitations raising a critical question on the sustainability of the systems being set up.

Reasons for slippage of communities from full coverage to partial or nil coverage range from schemes' inability to tackle water quality problems, poor operation and maintenance (O&M), lack of proper support mechanisms, weak village institutions, skills gaps and inadequate finances. Although the Government has taken note of this slippage, its mitigation strategy continues to focus largely on supply side factors while inadvertently overlooking local governance and demand related factors. Interestingly, Karnataka has witnessed lower incidence of slippage primarily due to effective decentralization<sup>4</sup> in the drinking water sector. By devolving functions, resources and decision making powers from state to district to block and then to village level, the state has truly decentralized governance of rural water systems.

<sup>1</sup> Census of India (2011)

<sup>2</sup> An improved drinking-water source is likely to be protected from outside contamination, in particular from contamination with fecal matter, by nature of its construction or through active intervention.

<sup>3</sup> UNICEF Press Release (22/03/2013)

<sup>4</sup> 'Slippage': The Bane of Drinking Water and Sanitation Sector (2010), by Center of Economic and Social Studies.



# GOVERNMENT RESPONSE

## Demand driven programs tailor-made for sustainability have shown potential, but lack of effective decentralization and willingness to pay have limited their impact.

The Government has allocated significant resources to address the potable water challenge over the past few decades mostly through supply driven programs. However sustainability has remained elusive due to high capital and institutional costs, unsatisfactory design performance and lack of accountability in service delivery, among other reasons as per a 10-state study on the Effectiveness of Rural Water Supply Schemes by the World Bank.<sup>5</sup> The Government of India launched a demand driven program, Swajaldhara, in 2002 which was designed to decentralize service delivery responsibility to local bodies where users would partially share capital cost and agree to pay a tariff that was set at an adequate level to cover operation and maintenance costs. But since prevailing government sponsored supply-driven schemes have neither imposed charges or compulsorily collected charges from beneficiary households, rural households have been discouraged from opting for demand-driven schemes in which they would be required to pay for water and bear the cost of the O&M. Hence, these demand driven schemes which seemed promising could not deliver against their potential and currently account for only about one-tenth of the total expenditure being incurred on rural water supply.<sup>6</sup> However, demand driven schemes were found to be about one-third less expensive than supply driven schemes due to the difference in institutional costs, and are much more effective.<sup>7</sup> Thus MDWS now grants incentives based on a Management Devolution Index (MDI) to promote adoption of demand driven schemes to states based on their performance in the devolution of powers to the Panchayati Raj Institutions (PRIs),

cost recovery and adoption of better management practices in rural drinking water supply schemes. The recently elected Indian Government has announced a national program, called 'Jal Shuddhi', which promotes locally managed community solutions that generate livelihoods while devolving powers to the local level in quality affected habitations.

The state government of the recently created state of Telangana understands the importance and urgency of providing safe water access. Through the 'Telangana Water Grid' project, the state government intends to invest about INR 25,000 crore (USD 4 b)<sup>8</sup> in the next four years to provide piped potable water with taps to all households across the state. It is anticipated that 10% of water from irrigation projects shall be allocated while about 10 lakh (1 m) kilometers of new pipelines shall be laid out to achieve this grid that the state has nobly decided to create. This is envisioned to improve the lives of the entire Telangana population upon completion by providing 55 (current target) to 100 (eventual plan) liters per capita per day (LPCD) of water. While the grid supply would deliver an adequate quantity of water for all other needs, CSWSs can augment the State's plan and provide quicker access to BIS quality potable water to the community by providing the requisite 5-8 LPCD. This gains more importance for water quality affected habitations in rural Telangana or to the informal settlements in the metros that are difficult to reach through piped connections due to their inherent nature of being overcrowded and unplanned.

<sup>5</sup> Misra, Smita. 2008. Review of Effectiveness of Rural Water Supply Schemes in India. World Bank, Washington, DC.

<sup>6</sup> World Bank. <https://openknowledge.worldbank.org/handle/10986/19488> License: CC BY 3.0 IGO.

<sup>7</sup> Ibid.

<sup>8</sup> Ibid.

<sup>8</sup> Conversion rate of 61.6 INR to US\$1.

# COMMUNITY SAFE WATER SOLUTIONS

Community Safe Water Solutions (CSWSs) are exhibiting the potential to play a critical role in delivering safe water access in off-grid communities, especially those with quality challenges.

In response to system sustainability, water quality challenges and the need to locally govern systems, various players have emerged in the last two decades who promote locally managed, locally owned (either from start of operations or subsequently) and demand driven community safe water solutions (CSWSs). These solutions are much less expensive to set up for quicker access to potable water and are more flexible than large utility or piped infrastructure. They also exhibit agile performance with an active understanding of their market, its price sensitivity, and consumers. The actual number of CSWSs currently operating in India is unknown, but it is estimated that there are between 7,000–12,000 units across India. The last decade specifically has seen rapid growth with various established organizations expanding in this sector, such as WaterHealth International (WHI) and Naandi Foundation. Other significant players, though not an exhaustive list, are Healthpoint Services, Rite Water Solutions, Safe Water Network, Sarvajal, Spring Health, Water For People, Waterlife, etc.

Many of these initiatives have made noteworthy strides and experienced significant success at the local level, exhibiting promise for these solutions to play a critical role in addressing the issue of safe potable water access. Their characteristic features of being demand driven, service delivery oriented and, in some cases, livelihood generating have promoted their acceptance at the state level with Punjab and Karnataka taking a lead in setting up CSWSs, with Rajasthan and Delhi also following suit quite recently.

Significant potential has been exhibited at the local level by CSWS implementers employing different economic and governance models, but no solutions to date have managed to deliver impact at scale.

CSWS implementers use a variety of governance and ownership structures to incorporate stakeholders and ensure sustainability. These models are based on the principles of Public Private Partnership (PPP) and broadly four models can be broadly defined as Build Own Operate and Transfer (BOOT), Build Operate Transfer (BOT), Private, and Community Managed Systems (CMS).

All of these existing models have shown promise at a local level but challenges to financial self-sufficiency have not allowed them to scale. Lack of significant adoption by communities, or increased cost of service or sustenance have posed challenges and thus as a sector CSWS implementers are yet to synthesize a model which can be replicated at scale and sustained over time to deliver significant impact.

This leads the sector to develop solutions with state governments as they are the perfect stakeholders with which to partner who have the mandate, the resources, and the will to achieve the vital goal of safe water access for all. In the Indian federal set up, water supply also being a state subject, gives impetus to Public-Private Partnerships (PPPs) between CSWS implementers and state governments. As mentioned earlier, some states have taken initiatives to fast track safe water access in quality affected habitations by partnering with CSWS implementers. However due to the nascency of PPPs in this sector, these pilots by design have been structurally inadequate for CSWS implementers to showcase significant scalable impact.

### Need to design more effective PPPs with adequate program support activities and service reliability, as they have potential to address the need on a financially viable basis at sustainable scale.

PPPs have been formed through the process of competitive bidding. Major challenges that states face in such PPPs are the unreliability of service provision as well as lack of wide participation by the community. Often the successful bidders have managed to offer the most competitive prices as they included only supplying equipment and not the onerous task of

aligning communities to participate to deliver health impact. For CSWS implementers, however, fulfilling the basic infrastructural needs like acquiring land and getting access to a water source and electricity have been a bottleneck due to the inherent complications of aligning with multiple governing bodies. Although initial infrastructure costs have been partially covered, low pricing of water as mandated in tenders and inadequate allocation of funds for its operation and maintenance have slowed down the potent rate at which CSWSs can typically initiate operations and expand to provide safe water access. On the brighter side, the sector is now witnessing tenders which incorporate a life cycle cost approach to project sanctions, however the proportion of allocations to Information, Education and Communication (IEC) activities to generate demand and willingness to pay among communities to sustain required levels of management are still not afforded as much attention as they deserve.



# BEYOND THE PIPE FORUM: OBJECTIVE

## Beyond the Pipe 2014 Forum identifies issues and challenges to advance PPPs.

This forum will bring forth the challenges that CSWS implementers face while delivering safe water access under conditions stipulated by existing partnerships with state governments. There is a definitive need to now reflect on these issues that hold the sector back and carve a meaningful way forward as PPPs have serious potential to achieve sustainable scale of water solutions that are socially inclusive and affordable.

Building on last year's Beyond the Pipe Forum, recommending PPPs as an effective way forward, this 2014 Forum engages the state government of Telangana to develop a model worthy of replication.

Our 2013 Beyond the Pipe Forum brought several sector specific issues to the forefront while aligning with the central government's Ministry of Drinking Water and Sanitation (MDWS) on devolving management responsibility to the local level to the greatest extent possible, with state governments serving as facilitators. A clear need was expressed that to further advance as a sector, CSWS implementers require greater coordination, knowledge sharing and an overall shift towards meaningful partnerships with state governments. Our 2014 Beyond the Pipe Forum builds on this effort with an objective to align the government of the newly formed state of Telangana and its advisors

with CSWS implementers to forge meaningful PPPs in rural water quality affected habitations and urban informal settlements to demonstrate the potential of these solutions at scale and provide an example which can then be emulated by other states across the country.



Countdown  
In 21 days  
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TOTAL

CLEAN ENVIRONMENT

HAND WASH (SOAP)



# SESSION TOPICS AND QUESTIONS

## SESSION 1. Overcoming challenges to safe water provision

Most CSWS implementers are social enterprises with a primary focus on improving health by providing affordable access to safe water. Their potential to help state governments solve this problem is undoubtedly quite significant. Yet their rate of delivering on this potential has remained below expectations, as they face challenges of various kinds including conventional problems like people's unwillingness to pay for water which are also faced by government's schemes, and also sector specific challenges like the lack of demand for paid safe water, the trade-off between affordability and sustainability, and cluster<sup>9</sup> level financial unviability, among others.

Panelists in this session will bring forward the challenges they have faced in implementing their CSWSs. Topics to be included are financial viability at community and cluster level; issues of governance, ownership and local capacity; difficulties in aligning communities to pay an adequate price for water;

differences between CSWS operations in an urban and rural set up; and advantages and challenges in working with government as a scale partner.

### Questions to consider:

- 1 How can state governments provide more meaningful support to CSWSs?
- 2 What are the requirements in the enabling environment including governance?
- 3 How varied are CSWS operations in rural and urban set ups, and what are the typical caveats to be aware of?
- 4 What level of scale is required for optimal management, technical support and financial viability, e.g. individual community vs. cluster viability?
- 5 What financial and quality factors should governments consider while designing tenders?

### NOTES

<sup>9</sup> A group of geographically proximate water stations that share common management and field support services (such as technical servicing and training) enabling cost and service efficiencies.





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