Small Water Enterprises
Strategy to Adapt during COVID-19

SEWAH – Sustainable Enterprises for Water and Health
Webinar Proceedings
May 14, 2020

Participating Organizations
Executive Summary

The Webinar “Small Water Enterprises’ 1 Strategy to Adapt during COVID-19” was held on Thursday May 14, 2020 to promote knowledge exchange and discuss scale up strategies among SWE implementers under the aegis of SEWAH – ‘Sustainable Enterprises for Water and Health’, a joint initiative of Safe Water Network India and USAID. The SWE implementers shared the challenges and adaptation strategies to run sustainable operations, retain teams, and continue to serve communities in these unprecedented VUCA times that pandemic COVID-19 has thrust upon mankind. The SWE sector suffered a setback as COVID-19 lockdown hit us at the beginning of the peak summer, during which more than 50% of annual business is transacted by water sale. In addition, the majority of the CSR funds are now being prioritized towards COVID care and rehabilitation. SWE implementers, today like other businesses, need to reinvent to adapt to the current situation. Organizations are strengthening their foundations through agile, high performance lean teams and adaptive strategies for survival during 2020 that offer customer simplicity.

We extend our sincere gratitude to Dr. Ashok Kumar Jain, Adviser NITI Aayog, Government of India (Rural Development, Drinking Water and Sanitation, Housing and Sustainable Development Goals) for Chairing and summarizing the session. We also sincerely thank Mr. Anand Rudra, Senior Adviser - WASH, USAID India, for addressing the SWE implementers and encouraging them to work cohesively for the scale-up of the sector under the ambit of SWE Alliance, table the concerns of the SWE sector to the NITI Aayog urging for policy reforms. Special thanks to our donors and patrons USAID, Honeywell Hometown Solutions India Foundation and Pentair Foundation for their grant and technology support.

This Beyond the Pipe Webinar had 14 eminent panelists - national SWE implementers who are providing decentralized affordable safe drinking water in rural India for over two decades and have now forayed in the urban cities in the last 6-8 years. Their footprint is present in all the States of India except six northeastern states. The participating SWE organizations included Decentralised Water Systems, Drinkwell Systems, Earth Water Limited, Janajal, MS Scientifics & Aqua Systems, Maithri Aquatech, Naandi Community Water Services, OCEO Water, Rite Water Solutions, Tata Projects, Sarvajal, WaterHealth India, Baal Vikasa and Safe Water Network India. We thank the 125 participants ranging from civil society, academia, technology providers, corporates, and international development organizations for their participation and questions.

The panelists, SWE Implementers highlighted the impact of COVID-19 lockdown on their operations, challenges they faced, strategies they adopted for business continuity, and serving their communities. They willingly agreed to share their best practices.

The strategies adopted by the SWE implementers during the lockdown ranged from keeping their teams informed, connected, and motivated; transparently sharing the changes in operations and services; promoting employee safety, and providing flexible working hours. There was increased communication and support to employees, messaging to their communities and increased donor engagement. Everyone logged into the virtual world where telecommuting and teleworking were the new norm. The leadership undertook risk assessment, developed a revised forecast and the business plans to examine the continuity of operations while building operational resilience. At the field level, the first and foremost task undertaken was to install safety protocols and precautions for the entire chain, involving SWE entrepreneurs, operators, repair technicians, and the consumers. There was increased IEC activity for personal hygiene, social distancing, frequent hand wash, personal protection, use of masks, gloves, and sanitizers. Disinfection of water treatment plants, dispensing touchpoints were adopted by the majority of the SWE implementers. And a few implementers conducted save water during hand wash campaigns.

Lockdown challenges commonly faced by the SWE implementers included the inability to expand, setting up new plants, reduced consumer footfalls, affected distribution systems, delay in resolving technical issues due to restrictions on people and spares movement, complete loss of revenues from the water treatment plants at cities, schools and railways stations as they were shut down. Some of the SWEs falling in the ‘red zone’ were also completely shut owing to the lockdown restrictions.

Post lockdown strategies include driving cashless digital payment system incorporation, touchless transactions, remote monitoring system installation for visibility of operations, hand wash stations at their Water ATM sites, IEC on personal, community and team safety as prescribed by the government. Ask from the Government: The SWE Implementers seek commercial concessions from the Government on license fees, electricity charges, capital outlay, exemption on GST on the services provided, use of Direct Benefit transfer to provide safe water to the poor.

What lies ahead: SWE sector was barely sustainable during the pre-COVID times and is now under the threat for survival. This crisis has led to water sales revenue loss, increased expenditure in employee safety, setting up hand wash station, frequent disinfection, etc. In addition, the sector requires investment for upgrading the SWE or Water ATMs for automated contactless dispensing, incorporating technology for migration to digital and cashless payment modes, etc. All this is magnified as the CSR funding is shrinking.

The SWE sector has to reimagine itself.

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1Small Water Enterprises or the SWEs are decentralized water treatment plants that provide affordable safe drinking water. These are called by various names such as Water ATMs, Water Vends, Community Water Treatment Plants, Safe Water Stations, Water Kiosks, etc.
Drinking Water Status in India

Globally, the decentralized (SWE) water market is estimated to reach ~$22 billion by the end of 2021. According to Frost and Sullivan, Smart Internet of Things (IoT) and digitized sustainable solutions will be the two major growth drivers in the water industry. Indian market is $6 Billion for SWEs.

Source: 1 OECD Indicator, accessible at [https://www.oecd.org/env/indicators-modelling-outlooks/49844953.pdf], quoted by DEWS

In India, as per the NITI Aayog report, more than 600 million Indians are facing high to extreme water stress, and 75% of households do not have drinking water on their premises. 70% of water supply is likely contaminated resulting in nearly 200,000 deaths each year. India today ranks 120th out of 122 nations in water quality.

The government stress is on piped water supply and spends more than INR 7000 crores (~US$ 1 billion) annually on water systems rife with operational issues. 30-40% of systems slip back to “partially covered” or “not covered” status due to poor operations and maintenance. Inadequate access to safe water affects health, livelihoods and income generation, and education especially that of a girl child leading to the cycle of poverty.

Urban Drinking Water Supply: While the government has set itself a target of providing treated and safe, 24x7 piped water supply at 135 LPCD in the cities, there exist a challenge of raw water availability, debilitated and old distribution piping infrastructure, inability to create new infrastructure in the ever-proliferating urban slums, which are often unplanned.

Small Water Enterprises: Market Potential in India

As per the Safe Water Network Analysis in India Sector Review 2018, of 1.36 billion population (as of today), 820 million people do not have access to treated piped water.

The market potential of SWEs in India is ~220,000 SWEs requiring an investment of ~US$ 6 billion. The SWE sector also requires operating subsidy, much like the large water sector nation-wide, to enable low pricing in quality-affected communities that lack access to treated piped water. This point was reiterated by the majority of the panelists.

Total India Population: 1.36 billion
Population without access to treated piped water: 820 million

Source:

Since over a couple of decades, entrepreneurs, impact investors, governments, and philanthropic organizations have deployed and refined these SWE solutions that complement traditional piped water. Its presence in rural and urban drinking water program is now visible. SWEs have been set up by the Delhi Metro Rail Corporation (DMRC), Indian Railway Catering and Tourism Corporation (IRCTC), and many metropolitan cities.

In India, there are more than 30 SWE implementers operating in rural and urban spaces who have collectively established ~ 50,000 SWEs of which ~ 5000 are in urban areas and on railway stations. There is an urgent need that the government budget is allocated to SWEs and mainstream them as a reliable source of potable water.

Water is ubiquitous in achieving Sustainable Development Goals. SWEs, therefore, contribute towards a myriad of UN SDG Goals - GOAL 5: Gender Equality; GOAL 6: Clean Water and Sanitation; GOAL 8: Decent Work and Economic Growth; GOAL 10: Reduced Inequality; GOAL 11: Sustainable Cities and Communities; GOAL 13: Climate Action; GOAL 17: Partnerships to achieve the Goal.
SWE Implementer Webinar Summary Output

Small Water Enterprise (SWE) Sector Presence

The 13 panelists have a footprint across India except for the six northeastern states:
- Bala Vikasa: 1122 rural and 25 urban in 4 states
- Drinkwell: 274 rural in 6 states
- Earth Water Limited: 1608 rural and 699 urban in 10 states
- JanaJal: 425 rural and 300 urban in 7 states
- MS Scientifics & Aqua Systems: 2 states
- Maithri Aquatech: 33 rural and 165 urban
- Naandi Community Water Services: 646 rural in 7 states
- OCEO Water: 2000 household & 10 in schools in 1 state
- Piramal: 425 rural, 150 urban, 190 schools in 20 states
- Rite Water Solutions: 920 rural & 200 urban in 4 states
- Safe Water Network: 299 rural and 31 urban in 3 states
- Tata Projects: 2800 rural & 700 urban in 18 states
- WaterHealth India: 750 rural in 11 states

SWE operations amid challenges during the lockdown

The lockdown has created a huge impact on the operations of the SWEs, located in both rural and urban districts of India. During the Webinar, the SWE implementers discussed some of the common challenges they faced due to the country lockdown. These were:

- Inability to set up new plants
- Reduced consumer footfalls
- Affected distribution systems
- Delay in resolving technical issues due to restrictions on technician travel and spares availability
- Loss of sales revenue for the local entrepreneur leading to viability and sustainability challenge on operations.

Out of the total 10,447 units set up by eight SWE implementers, nearly 35% (3,622) units were completely shut due to the lockdown restrictions.

Adoption of Best Practices during C-19 Lockdown

The SWE implementers continued to take appropriate precautions and steps at their plants to ensure the safety of the SWE entrepreneurs, operators, and the consumers. These include social distancing, hand wash, and adopting personal protection like masks, gloves, and sanitizers by organizations like Bala Vikasa, Drinkwell Systems, Earth Water Limited, Naandi, and MS Scientifics & Aqua Systems, Safe Water Network, among others. “Cashless / Digital payment system” is also being promoted by the implementing organizations and successfully being adopted by the community to a greater extent. For instance, organizations like JanaJal, Sarvajal, Safe Water Network India, and WaterHealth India successfully pushed for contactless, digital water collection, and payment system at their SWEs. This also brought in behavioral change adoption among communities. Maithri Aquatech supplied microbe-free potable water using solar energy (BE) to the ‘COVID-19 Warriors’ in Hyderabad city. Rite Water Solutions ensured their SWEs were sanitized by spraying hypo (chlorine) solution. OCEO utilized the time in exploring the use of clean energy and built an integrated, off-grid decentralized drinking water solution. Tata Projects TPL-US deployed “Digital Twin” IoT solutions for repairs and maintenance of the plants during the lockdown.

Gender Program adopted by SWEs

Out of the 13 SWE players who participated in the SWE alliance webinar, only 7 (54%) have the gender program. For the SWE implementers who have gender program, women constitutes 36% of the total workforce. Balavikasa, JanaJal and Maithri Aquatech have 60% representation of women.
Out of the 13 SWE players who participated in the SWE alliance webinar, 77% reported to have adopted social distancing and another 69% consented for adopting personal protection like masks, gloves. “Cashless payment” is adopted by only 38% and hence digital payments needs to be advanced.

Notable Achievements
- **Drinkwell Systems** has a patented, reusable resin technology that recovers 90%+ of water.
- **Rite Water Solutions** introduced manufacture of hypochlorite locally using salt.
- **OCEO Water** combined forces with Nam (Clean Water + Clean Energy) to recycle used batteries from laptop as energy source.
- **JanaJal, Sarvajal, Safe Water Network, Tata Projects** ran operations on the power of digital platform.

Post Lockdown Adaptation
IEC campaigns, facilitation of WASH especially hand wash at the water collection points for the community, and operator safety is the main priority of all SWE implementers. Many SWE implementers suggested that they will focus on equipping remote monitoring system to their water treatment plants, creating multiskilled lean teams for servicing, insurance of equipment, personnel safety and introduce health insurance.

Recommendations and Next Steps
SWE Implementers seek commercial concessions from the Government of India on license fees, electricity charges, Capex outlay, exemption on the GST on services provided, use of the SWEs as a Knowledge Center or Information Service Outlets for free supply of education and increased awareness, and a source of affordable masks and sanitizers to the communities. Specifically, there needs to be the proper categorization of GST on water treatment equipment and be exempted, if possible.

Earmark funds for SWE sector scaleup and R&D efforts. Mainstream SWEs as a complementary solution to the existing piped water supply and ‘Har Ghar Jal Mission’ by facilitating doorstep delivery of potable water by SWEs to each poor home using the proven model of Direct Benefit Transfer (DBT). In one stroke, it will turn the sector viable and improve the under-utilized installed capacities as well as improve public health.

Quotes
- **“Small Water Enterprises have the potential to expand in the country to ensure drinking water security, especially under the climate change threat and now, during the pandemic COVID -19. There is a need to mainstream this innovative solution.”**
  - Dr. Ashok Kumar Jain, Adviser (RD), NITI Aayog

- **“It’s time to aggregate existing water treatment plants in India, converge them into a unified platform through Aarogya Setu App and drive the economy for the benefit of every stakeholder in the value chain. The SWEs can play a key role in contributing towards the Government’s Har Ghar Jal Mission.”**
  - Dr. Parag Agarwal, CEO, Janajal

- **“Government should provide commercial concessions like license fees waiver, waiver of fixed electricity charges and contract extensions to ease SWE operations.”**
  - H. Subramaniam, Cofounder & COO, Earth Water Limited and Editor of EverythingAboutWater

- **“In the future, the supply chain will gravitate more towards decentralized model. The entire ecosystem needs to be disinfected and the technology play will come into greater existence when it comes to water business, in terms of remotely-managed automated SWE operations.”**
  - Vikas Shah, CEO, DeWS

- **“I look forward to all SWE implementers coming together to work as a team on Project SEWAH through SWE Alliance platform, play an advisory role to city corporations and Governments and present SWEs as complementary solutions to piped water supply.”**
  - Anand Rudra, Senior Adviser - WASH, USAID India

- **“During the C-19 crisis, we had complete visibility of our operations through the remote monitoring system which helped ensure uninterrupted water dispensing during the lockdown. Stations started digital payments and initiated use of UPI payments by the consumers to recharge their smart cards to encourage cashless and touchless transactions. Technicians use video calls to extend service support.”**
  - Ravindra Sewak, India Country Director, Safe Water Network

- **“In order to promote the ‘Make In India’ initiative, the government should mandate minimum allocation of 5-10% of the water budget for alternative and innovative technologies. Subsidies on power to SWE implementers can help reduce operating costs in water-scarce areas.”**
  - Naveen Mathur, CEO, Maithri Aquatech

- **“Raising funds in the future will be challenging. Let’s get together as a sector to raise funds and we would welcome space for discussions, to be able to bring value to those beyond the pipe. Look forward to cooperation and collaboration.”**
  - Divya Yachamaneni, CEO, Naandi Community Water Services
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“There is need for extensive Government support for women entrepreneur/SHGs by expediting and prioritizing ease of getting loans with low interest rate.”
- H. E. Kutty, SBU Head - Utility Services, Tata Projects

“There should be GST exemption on the water equipment and water delivery services for cost-effective operations. Further, CSR funds should be allocated towards strengthening decentralized community water systems.”
- Madhu Krishnamoorthy, Head of Business Development, WaterHealth India

“Promoting Gender equality through SWEs is a good initiative. Cost of delivering water should be reduced to capitalize on the present situation. How can we align our site selection decisions with Nal se Jal scheme in order to avoid duplication. We should have transparency to scale as a sector.”
- Minhaj Chowdhury, CEO & Co-founder, Drinkwell Systems

“She seek Working Capital support from the Government of India for the sector, in line with the loan proposal for the MSMEs that was recently announced.”
- Abhijeet Gaan, Director & CEO, Rite Water Solutions

“Request the Government to facilitate a digital water quality map of India, which can be used by the organizations in the sector for expansion of the SWE footprint with appropriate technology.”
- Vikram Gulecha, Co-founder, Strategy & Alliances, OCEO Water

“Besides providing safe drinking water to the communities, we partnered to provide humanitarian assistance. Water Plant Committees of 25 WPPs stepped in to provide essential supplies like Rice, Atta, vegetables, sanitizers, masks, etc.”
- Shoury Reddy, Executive Director, Bala Vikasa

“We need Government support to help with costs involved, for us to integrate our underutilized resources. We should also offer common services to minimize service costs amongst SWE implementers.”
- J. Anand Anil Kumar, CEO, MS Pharmaceuticals & Aqua Systems
Bala Vikasa Social Service Society
BSE India
Clean Water & Energy Trust
Confederation of Indian Industry
Decentralised Water Systems (DeWS)
Deloitte Touche Tohmatsu India LLP
Drinkwell Systems
Earth Water Limited
Embassy of Netherlands
FICCI
Grundfos
G H Raisoni College of Engineering
Hewlett Packard Enterprise
Honeywell Hometown Solutions
HSBC GBM
Indian Institute of Technology, Hyderabad
Indian School of Public Policy
India Water Partnership
Indira Gandhi Centre for Atomic Research
IRC WASH Netherlands
Institute of Rural Management (IRMA) Anand
Jaldhara Foundation
JanaJal
Maithri AquaTech
MS Scientifics & Aqua Systems
Mu Gamma Consultants

Naandi Community Water Services
National Institute of Urban Affairs
NITI Aayog
OCEO Water
Orient Cement Company
Pentair Foundation
PepsiCo Foundation
Plan India
Primus Partners
Quality Council of India
Rite Water Solutions
Safe Water Network
Sarvajal
Tata Projects
UNICEF
Underwriters Laboratories Singapore, India
University of California, Merced
US India Foundation
USISPF
USAID
Uttrarbanga Kshetriya Gramin Bank
Water.org
WaterHealth India
WISH Water Solutions Pvt. Ltd.
World Bank
Xylem Inc.