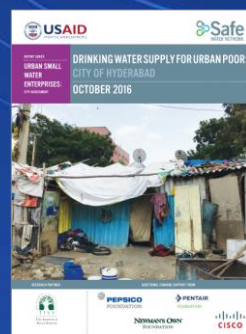
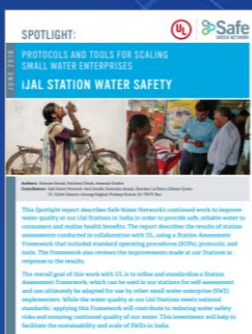
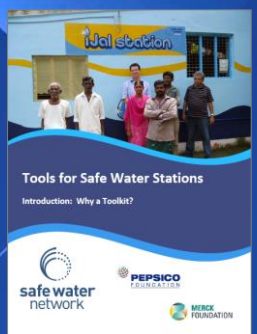
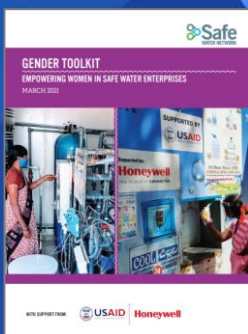
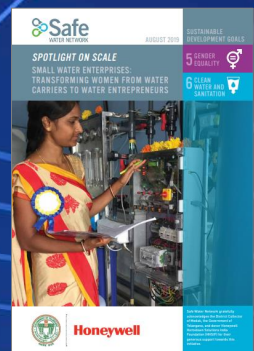
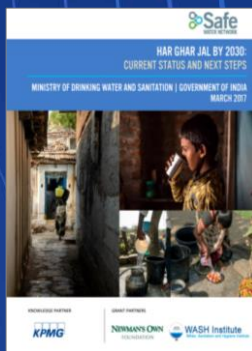
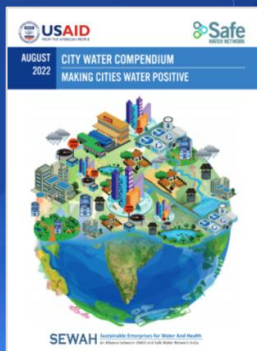
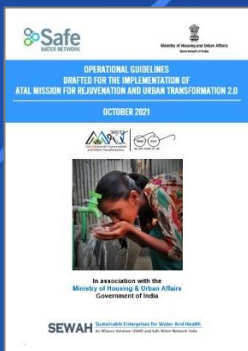


KNOWLEDGE COMPENDIUM

PRACTICES FOR SAFE AND AFFORDABLE WATER
2010-2023



© Safe Water Network India 2023. All rights reserved.

The Centrum, Main Mehrauli-Gurgaon Road, Sultanpur, New Delhi 110030 INDIA

Tel: +91 11 26800884

Web: www.swealliance.org | www.safewaternetworkindia.org

Rights and Permissions

The material in this work is subject to copyright. While Safe Water Network India encourages dissemination of its knowledge, this work may be referred to or published in whole or in part in other sector report or publishing, as long as full attribution to this work and to the organization is acknowledged.

No part of this publication may be transmitted in any form, or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the publishing organization.



CONTENTS

Sector Reports	01
City Water Supply Assessments	02
Policy and Advisory	03
Field Insights & Case Studies	04
Spotlights and Reports	06
Model Documents	08
Capacity Building: DIY Toolkits	09
Project Implementation Reports	11
Impact Assessments	12
Digital Tools	13
Rainwater Harvesting Program	14
Scientific Papers	15
Technical Papers	16
Beyond the Pipe Fora	18
Meet the Authors	21



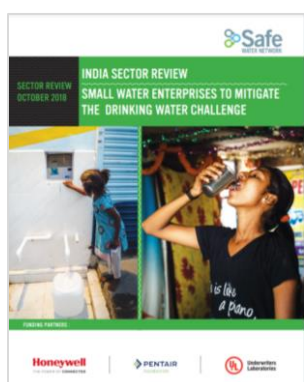
INDIA SECTOR REVIEW: SAFE WATER ENTERPRISES FOR RELIABLE AND AFFORDABLE DRINKING WATER ACCESS

Year of Publishing: 2023

Author (s): Poonam Sewak, Pooja Singh, Reena Kumari

Focus: Need for Safe Water Enterprises or beyond the pipe communities

Fourth in the series, the India Sector Review of 2023 reassesses the need for Safe Water Enterprises, or Water ATMs (decentralized water treatment plants that provide affordable, safe water access) in the current scenario in India, where the government provides piped water access to each home. It sheds light on the relevance, market size, and regulatory environment for the SWEs.



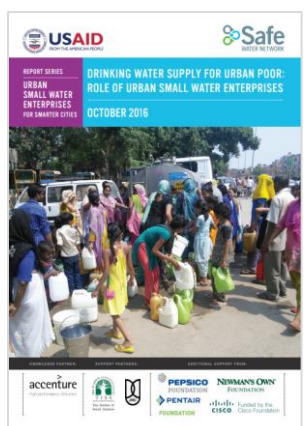
INDIA SECTOR REVIEW: SMALL WATER ENTERPRISES TO MITIGATE THE DRINKING WATER CHALLENGE

Year of Publishing: 2018

Author (s): Poonam Sewak, Pooja Singh, Garvita Chawla, Reena Kumari, Arshiya Tawakley

Focus: Policy and institutional reforms to promote public private partnership

The report assesses the drinking water supply in urban and rural India and the gap that can be filled by small water enterprises amid growing water availability stress and water quality contamination. The report calls for policy and institutional reforms in drinking water sector to promote public private partnership with fair risk tenders and conducive ecosystem for SWE expansion.



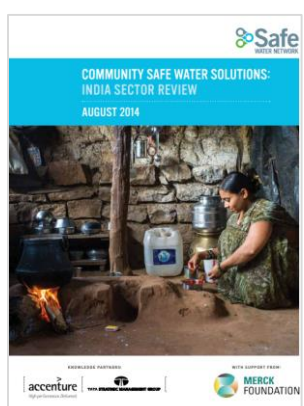
DRINKING WATER SUPPLY FOR URBAN POOR: ROLE OF URBAN SMALL WATER ENTERPRISES

Year of Publishing: 2016

Author (s): Amanda Gimble, Ravindra Sewak, Poonam Sewak, Pooja Singh, Garvita Chawla, Sukirti Vinayak, Sunaina Chauhan, Jennifer Niedinger

Focus: Municipal water supply gaps, policy & enabling environment for SWEs

The report examines the need for Urban Small Water Enterprises (USWEs) and the regulatory framework and market potential to set up USWEs as a complementary solution to piped water supply. It also captures insights from assessments conducted in the cities of Vizag, Hyderabad, Mumbai and New Delhi, gaps in municipal water supplies and use of digital tools.



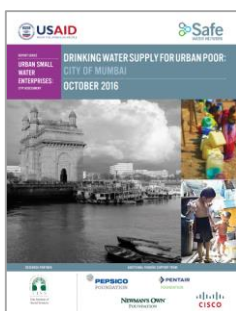
INDIA SECTOR REVIEW: ASSESSMENT OF RURAL MARKET SIZE FOR SMALL WATER ENTERPRISES

Year of Publishing: 2014

Author (s): Ravindra Sewak, Poonam Sewak, Subhash Jain, Pooja Sarvotham, Sukirti Vinayak, Ruth Rosenberg, Dave Colner, Somnath Bandyopadhyay, Ryan Hebert

Focus: Sustainable provision of safe drinking water in rural India

This Report identifies the need for community safe water solutions in rural India and reviews the current economic and operating models employed by key sector players to address this need, operating challenges, and funding scenarios for ensuring sustainability and scale-up.



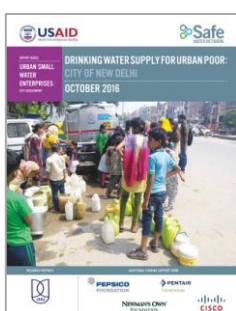
MUMBAI CITY WATER SUPPLY ASSESSMENT

Year of Publishing: 2016

Author (s): Sunaina Chauhan, Poonam Sewak, Amanda Gimble, Jennifer Niedinger

Focus: Water supply & operational gaps, recommend SWE as a solution

This report assesses the existing drinking water supply situation in Mumbai city, need for SWEs as complementary solution to the piped water supply and need for digital tools for e-governance and M&E.



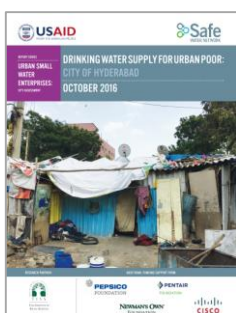
NEW DELHI CITY WATER SUPPLY ASSESSMENT

Year of Publishing: 2016

Author (s): Sukirti Vinayak, Poonam Sewak, Ravindra Sewak, Amanda Gimble, Indrani Handa, Jennifer Niedinger

Focus: Water supply & operational gaps, recommend SWE as a solution

This report assesses the existing drinking water supply in New Delhi, need for SWEs as complementary solution to piped water supply and the need for digital tools for e-governance, monitoring and evaluation.



HYDERABAD CITY WATER SUPPLY ASSESSMENT

Year of Publishing: 2015

Author (s): Pooja Singh, Poonam Sewak, Ravindra Sewak, Amanda Gimble, Jennifer Schmitzer

Focus: Water supply & operational gaps, recommend SWE as a solution

This report assesses the existing drinking water supply situation in Hyderabad city, need for SWEs as complementary solution to the piped water supply and the need for digital tools for e-governance and M&E.



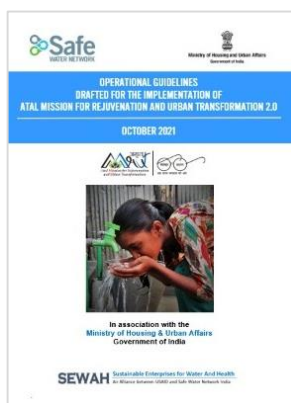
VIZAG CITY WATER SUPPLY ASSESSMENT

Year of Publishing: 2015

Author (s): Sukirti Vinayak, Arvind Iyer, Sameer Muthreja, Pooja Sarvotham, Jennifer Schmitzer, Indrani Handa

Focus: Water supply gaps, digital tools, recommend SWE as a solution

The assessment evaluates the existing piped water supply in Vizag, identify gaps, and provides recommendations to achieve 24/7 piped water supply; evaluates SWE potential to complement piped water supply in urban slums; and assesses the need for digital tools for governance.



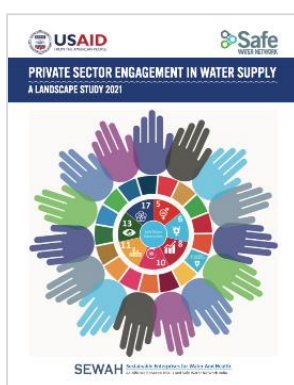
OPERATIONAL GUIDELINES FOR THE IMPLEMENTATION OF AMRUT 2.0

Year of Publishing: 2021

Author (s): Poonam Sewak, Dr. Avnish Verma, Pallavi Mukane

Focus: Guidelines for effective implementation of AMRUT 2.0 initiative

The Safe Water Network India-SEWAH (Sustainable Enterprises for Water And Health) contributed towards the development of operational guidelines for the implementation of AMRUT 2.0. These guidelines, launched in October 2021, have been formulated with the aim of assisting States/ UTs for making cities Aatma Nirbhar and 'water secure'.



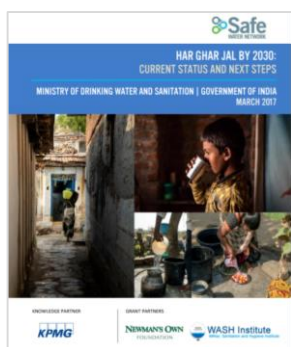
PRIVATE SECTOR ENGAGEMENT IN WATER SUPPLY – A LANDSCAPE STUDY

Year of Publishing: 2021

Author (s): Poonam Sewak, Garvita Chawla, Pooja Singh, Ipsita Gauba, Nidhi Modi, Simran Sharma

Focus: Private Sector Participation for investment & service quality improvement

This report highlights the importance of engaging private sector in water sector for financial support and improve service quality of water ATMs. It provides insights to sector partners, government and private sector for seamless collaboration to ensure safe, affordable drinking water access to the low-income communities.



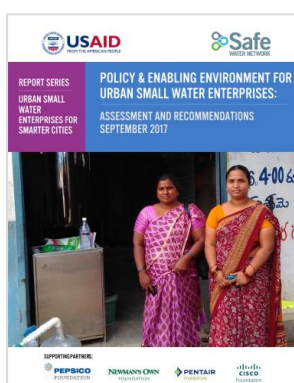
HAR GHAR JAL BY 2030: CURRENT STATUS AND NEXT STEPS

Year of Publishing: 2017

Author (s): Poonam Sewak, Shrestha Chowdhury, Pooloma Ghosh, Pooja Singh

Focus: Bringing piped water to every household

This report is a mid-term assessment of the Strategic Plan 2011-2022 for rural drinking water, which helps operationalize the NRDWP by setting out goals, objectives and strategic initiatives for the sector. It puts forth a broad framework and policy guidelines to help achieve 'Har Ghar Jal' by 2030 and address emerging issues. It also provides recommendations, suggesting next steps to bring safe drinking water to every home in rural India by 2030.



POLICY & ENABLING ENVIRONMENT REPORT: FOR SCALE UP OF SMALL WATER ENTERPRISES

Year of Publishing: 2017

Author (s): Ravindra Sewak, Poonam Sewak, Amanda Gimble, Pooja Singh, Shrestha Chowdhury

Focus: Influence government policies & plans to promote SWE expansion

The Report captures the prevailing policy & enabling environment for USWEs in cities, with a focus on slums, and highlights critical factors that need to be addressed to enable their set up. It seeks to influence government policies, plans, and incentives to create a conducive enabling environment.



CASE STUDY: RELOCATION OF iJal STATIONS FOR ASSET PROTECTION

Year of Publishing: 2020
Author (s): Pooja Singh, Poonam Sewak
Focus: Relocation for Project Sustainability

This case study assesses the performance of iJal stations in terms of ensuring Social, Operational, Financial, Institutional & Environmental (SOFIE) sustainability both pre and post relocation. Relocation is essential to ascertaining portfolio optimization & continued asset utilization towards ensuring safe affordable water access.



FINANCIAL SUSTAINABILITY: FINANCIAL DRIVERS FOR SUSTAINABILITY OF SMALL WATER ENTERPRISES IN INDIA

Year of Publishing: 2015
Author (s): Garvita Chawla, Ravindra Sewak, Indrani Handa
Focus: Financial Drivers of Reverse Osmosis Water Systems in Rural India

This Field Insight informs the key financial drivers to ensure financial sustainability drinking water treatment systems, using inferences from our water stations in India. These include population, household size, household penetration, distribution activities and per capita consumption.



SOLVING FOR WATER SECURITY IN A MICRO-WATERSHED

Year of Publishing: 2015
Author (s): Subhash Jain, Ravindra Sewak, Christopher McGahey
Focus: Modeling Environmental Sustainability of Community Drinking Water Solutions in India

This Field Insight describes the measured hydrologic footprint of iJal water stations in a micro-watershed to ensure that environmental requirements are used to inform evaluation, site assessment and promote efficient water resource use.



SHARING VALUES TO MARKET RURAL DRINKING WATER CREATING TEAM iJal WITH LOCAL NGO

Year of Publishing: 2014
Author (s): Christopher McGahey, Poonam Sewak, Raimisetty Murali
Focus: Market-based model, led by local community

This Field Insight explores value based collaboration among partners to identify and reduce frictions, and converge skills to share and disseminate best practices learnt on-the-ground towards meeting safe drinking water needs for the underserved for sector replication.



SAFE WATER DISTRIBUTION IN INDIA: IMPROVING FINANCIAL VIABILITY THROUGH COST EFFECTIVE SERVICE DELIVERY

Year of Publishing: 2014
Author (s): Ryan Hebert, Ravindra Sewak, Hew Crooks, Sumanta Mitra, Shanker Batra
Focus: Improving Financial Viability Through Cost-Effective Delivery Services

Safe Water Stations need to reach minimum sales volumes to become financially viable. We've field-tested a range of approaches to enable third-party distribution networks, with the goal of demonstrating a model that's profitable for local distributors and standardized for replication.



CONSUMER ACTIVATION IN INDIA, PART I

Year of Publishing: 2013
Author (s): Somnath Bandyopadhyay and Ryan Hebert
Focus: Understanding community knowledge, attitudes, practices & beliefs

This Insight informs about our assessment on the factors shaping the decisions of safe water consumers and non-consumers. We conducted focus group discussions, formal and informal interviews with key stakeholders, and field-testing of alternative messaging approaches.



CONSUMER ACTIVATION IN INDIA, PART II

Year of Publishing: 2013
Author (s): Poonam Sewak, Amanda Gimble, Ryan Hebert, Pooja Singh
Focus: Health-focused messaging, targeted videos for different audiences on electronic tablets, and public water quality demonstrations

Consumer demand is critical to the financial sustainability of a water system. To increase adoption and use, a new consumer activation campaign was developed that leveraged the whole community's influence.



SPOTLIGHTS & REPORTS



RETHINKING GENDER EQUALITY THROUGH THE LENS OF ECONOMIC EMPOWERMENT IN WATER

Year of Publishing: 2023

Author (s): Ravindra Sewak, Poonam Sewak, Nidhi Modi

Focus: Financial Sustainability of Safe Water Enterprises

This report shares the success of the USAID's SEWAH program, where women's traditional roles of carrying water on their heads are supplemented by owning and operating local water stations. The gender equality program has scaled up with seven SWE implementing partners across 30 cities and 12 states in India. The findings highlight women's absence in the water sector as policymakers, implementing partners, and those owning and operating SWEs. Additionally, it identifies research-enabled gaps towards developing solutions and positioning women across the SWE value chain to ensure each person earns income, creating a knowledge platform for resource sharing, standardized learning, and community-led WASH for better economic and health outcomes.



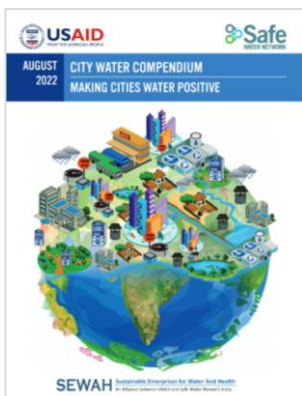
FINANCIAL AND OPERATIONAL PERFORMANCE OF SAFE WATER ENTERPRISES IN INDIA

Year of Publishing: 2023

Author (s): Ravindra Sewak, Poonam Sewak, Nidhi Modi

Focus: Financial Sustainability of Safe Water Enterprises

The report analyzes the various Safe Water Enterprises or Water ATMs operating models and their financial performance based on the actual performance data and not projections. It presents the analysis of +7000 Water ATMs set up by SWE Implementing partners – Drinkwell Systems, JanaJal WoW, Rite Water Solutions, WaterHealth India, Waterlife India, and Safe Water Network India across more than 20 States of India over the last two decades. The Report also captures the Financial and Operating Performance of SWEs set up by the State governments.



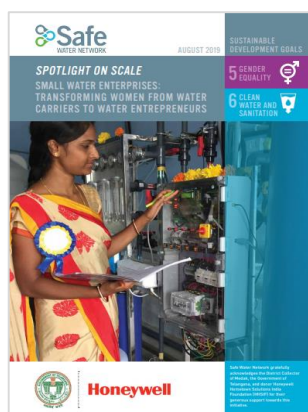
CITY WATER COMPENDIUM: MAKING CITIES WATER POSITIVE

Year of Publishing: 2022

Author (s): Poonam Sewak, Pallavi Mukane, Pooja Singh, Shveta Mahajan, Reena Kumari, and Nidhi Modi

Focus: New Approach for Water Sustainable Cities

The report is a compilation of water availability, supply, and wastewater scenario of select 24 Indian cities with a City Water Index, a scoring model based on quantitative and qualitative indicators tracked. CWI assesses the sustainability of the water cycle under the City Water Balance Plans approach as proposed under the AMRUT 2.0-MoHUA guidelines.



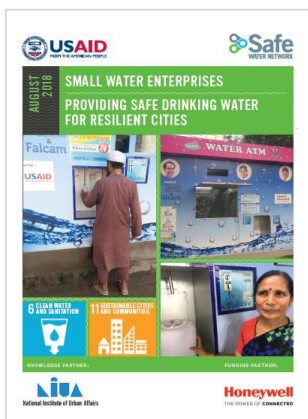
SMALL WATER ENTERPRISES: TRANSFORMING WOMEN FROM WATER CARRIERS TO WATER ENTREPRENEURS

Year of Publishing: 2019

Author (s): Poonam Sewak, Pooja Singh, Reena Kumari, Garvita Chawla, Vibha Hanaria, Arvind Deshmukh, Amanda Gimble

Focus: Women-led Small Water Enterprises, Promoting Gender Equality

The report details how Safe Water Network has helped mainstream women switch to entrepreneurial and operational roles to own and manage small water enterprises (SWEs). SWEs are locally owned and operated water treatment plants that expand access to safe, affordable water for communities.



SMALL WATER ENTERPRISES: PROVIDING SAFE DRINKING WATER FOR RESILIENT CITIES

Year of Publishing: 2018

Author (s): Poonam Sewak, Pooja Singh, Reena Kumari, Amanda Gimble

Focus: Regulatory framework for the advancement of USWEs

This report informs how USWEs can be a sustainable complementary solution to the Government's existing piped-water supply and support the transformation of safe-water-stressed cities into resilient cities. It further outlines the requirements for creating more conducive environment and a regulatory framework for the advancement of USWEs.



PROTOCOLS AND TOOLS FOR SCALING SMALL WATER ENTERPRISES: IJAL STATION WATER SAFETY

Year of Publishing: 2018

Author (s): Poonam Sewak, Pooloma Ghosh, Amanda Gimble

Focus: Standard Protocols for replicating safe water ATMs with safety measures

This Spotlight report describes the results of station assessments conducted in collaboration with global safety science firm Underwriters Laboratories, using a Station Assessment Framework that included standard operating procedures, protocols, and tools.



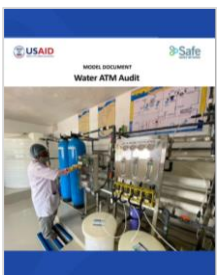
COMMUNITY DRINKING WATER TREATMENT PLANTS (CWTP) – SPECIFICATION (DRAFT INDIAN STANDARD)

This Model Document is a draft version of the Indian Standards recommended for the community drinking water treatment plants (CWTPs), in order to establish the minimum requirements for materials, design, construction and performance of public drinking water purification systems/drinking water kiosks that treat and dispense drinking water. It also describes the minimum maintenance & service-related obligations.



SERVICE LEVEL AGREEMENT OPERATION & MAINTENANCE OF WATER ATMS

This Model Document is a Service Level Agreement recommended between the O&M Contractor and Employer, as to what constitutes acceptable delivery of service in quantifiable and measurable terms, to ensure that O&M Contractors clearly understand what is needed to effectively, efficiently, and reliably operate and maintain Water Purification Plants, and to measure, track and communicate key metrics accordingly.



AUDIT OF WATER ATMs

This Model Document informs the critical elements of a typical audit of a given Water ATM – assess its functioning, with a Plant Health Checklist making use of a framework of standard operating procedures and protocols to evaluate the plant infrastructure, operation & maintenance, quality of inputs and personnel capacity.



CODE OF PRACTICE FOR DESIGN, INSTALLATION AND MAINTENANCE OF COMMUNITY DRINKING WATER TREATMENT PLANTS (DRAFT INDIAN STANDARD)

This Model Document comprises the draft Standards developed to establish minimum requirements for design, installation and maintenance of CWTPs, for the essential goal of ensuring that the drinking water dispensed by the CWTPs is safe and suitable for human consumption. It also defines the operations and quality information to be maintained for scrutiny by any competent authority.

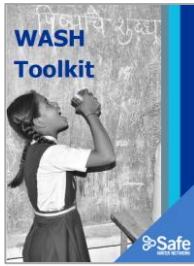


MODEL TENDER DOCUMENT/RFP FOR DESIGN, CONSTRUCTION, INSTALLATION AND O&M OF WATER ATMs WITH VIABILITY GAP FUNDING

This is a model tender document – a prototype of the Request for Proposal developed to inform specifications for design, construction, installation and operations and maintenance of water ATMs with viability gap funding mechanism, and specifications for the award of proposal.

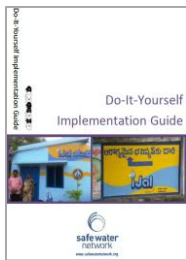


CAPACITY BUILDING: DIY TOOLKITS



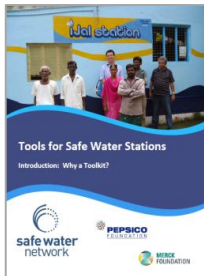
WASH TOOLKIT

This toolkit is an attempt to provide an exhaustive framework of necessary aids, techniques and templates to be used by different stakeholders such as key opinion leaders, schools, officials and functionaries at urban local bodies who play an important role in facilitating and providing improved water, sanitation and hygiene services.



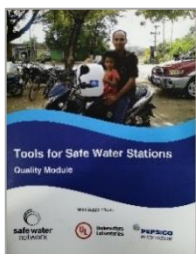
DO-IT-YOURSELF IMPLEMENTATION GUIDE

The DIY Implementation Guide encapsulates various intervention programs conducted at the grassroots level, including village engagement, 'iJal' brand identity, communication approach, key consumer insight, and go-to-market approach with targeted spiels in local regional languages towards community mobilization.



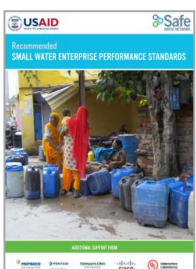
TOOLS FOR SAFE WATER STATIONS: WHY A TOOLKIT?

This Tool Kit provides step-by-step guidance to direct program implementers to supply safe drinking water to and by the poor through decentralized, locally owned Safe Water Stations. The Kit compiles the best practices of development professionals and the private sector and offers to users nearly a decade of lessons learned by the Safe Water Network



TOOLS FOR SAFE WATER STATIONS: QUALITY MODULE

This module defines steps and standards of quality assurance due diligence to ensure the continual performance of high quality safe water stations and delivery of treated drinking water to consumer



PERFORMANCE STANDARDS: BENCHMARKING SMALL WATER ENTERPRISES

These standards provide a framework for Urban Local Bodies and Rural Water Supply & Sanitation department to measure, analyze and monitor SWE performance. SWE Implementers can also use these standards to evaluate their own performance.



CAPACITY BUILDING: DIY TOOLKITS



iSWEET: DIGITAL SAFE WATER ENTERPRISE ENTREPRENEUR TOOLKIT

Year of Publishing: 2021

Focus: A suite of practical tools as a guiding toolkit for ULBs, sector implementers to operate and manage Safe Water Enterprises through social entrepreneurship

The iSWEET (password-protected), consisting of 10 modules, 30 tools and 63 sub-tools, is the repository of lessons drawn from a decade of practice, with social entrepreneurs. The local semi-literate youth and women operate and maintain these SWEs for 24x7 reliable and affordable, safe drinking water access. Each module consists of tools including site selection, bookkeeping, water quality monitoring, community mobilisation and empowering women to operate and manage the SWEs.

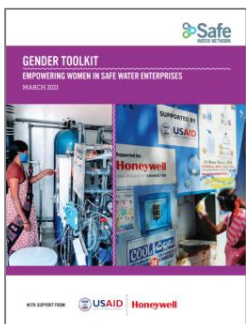


iCWBP: MAKING CITIES WATER POSITIVE THROUGH CITY WATER BALANCE PLANS

Year of Publishing: 2021

Focus: Training toolkit to adapt data-based decision making to mitigate drinking water crisis

This Toolkit (password-protected) is a decision support system tool for the municipalities and sector stakeholders, to enable achieve the Government's initiative of making +4,000 cities water positive under the Jal Jeevan Mission Urban. It is an innovative approach to management of urban water cycles as one water and adapting a data-based decision making to mitigate the severity of impending crisis. The toolkit comprises of 7 modules and 29 tools. Each module defines a structures approach assist the decision makers in developing and implementing solutions for making cities water positive.



GENDER TOOLKIT

Year of Publishing: 2021

Focus: Empowering women in Safe Water Enterprises

This Toolkit outlines the methodology and steps to engage women as entrepreneurs in their water program. It informs how to guide staff to operationalize women entrepreneurship in gender-related work and SWEs. It includes gender responsive indicators, the imperatives for onboarding, supporting and retaining women, engagement process with men to breakdown patriarchal barriers, and teaching women groups how to plan, design, operate, monitor and feedback process. It lays down how to rely on clear mandates, processes and systems to bring gender integration in the program, operating under a PPP Model with private sector participation and government endorsement.



WOMEN EMPOWERMENT, TELANGANA

Year of Publishing: 2020

Focus: Role of Women-led Small Water Enterprises in public health

The purpose of the assessment was to get insights into: To understand communities' knowledge, attitude, practices and behavior; Drudgery reduction of women and girl child and well-being of the communities; Perception of current sources of water regarding availability, timing, supply, quality etc.; impact of iJal on health, education, expenses, wage savings



URBAN WASH ALLIANCE

Year of Publishing: 2017

Focus: Role of Women led Small Water Enterprises in public health

This report provide summary of several cross-cutting initiatives undertook in association with USAID, including: : i) mapping existing urban water supply to evaluate the potential for small water enterprises for the urban poor; (ii) assessing the viability small water enterprises to be operationally, financially, and technically sustainable; (iii) evaluating the policy and enabling environment to understand barriers to scale; (iv) recommending performance standards aligned with Government of India safe water goals; and (v) developing open-source digital tool apps to support the scale-up of small water enterprises.



PROJECT INTERVENTION IN DISTRICT MEDAK, TELANGANA

Year of Publishing: 2017

Author (s): Poonam Sewak, Pooja Singh, Amanda Gimble, Vibha Hanaria

Focus: SHG-led stations performance

This report assesses the performance of 31 iJal stations situated in Medak that bring safe and affordable access to over 100,000 people. These stations are governed by Self Help Groups (SHGs).



IMPACT ASSESSMENT REPORT: TELANGANA

Year of Publishing: 2020

Author (s): Poonam Sewak, Pooja Singh, Garvita Chawla, Reena Kumari, Vibha Hanaria

Focus: Impact of Safe Water Access Intervention in 154 communities in the Telangana State

An impact assessment study was carried out to assess the impact of 154 Water stations. The purpose of the assessment is to understand communities' knowledge, attitude, practices and behavior; Drudgery reduction of women and girl child and well-being of the communities; Perception of current sources of water regarding availability, timing, supply, quality etc. and impact of iJal on health, education, expenses, wage savings.



IMPACT ASSESSMENT REPORT: TELANGANA

Year of Publishing: 2016

Author (s): Poonam Sewak, Pooloma Ghosh, Pooja Singh, Amanda Gimble

Focus: Expansion of safe drinking water "iJal stations" in Telangana

This assessment captures Honeywell-supported project impact with safe, affordable drinking water provision, especially focusing on the women and their kids, who suffer untold drudgery carrying daily household water from miles away and to improve the health by preventing incidences of waterborne diseases.



IMPACT ASSESSMENT: BHANDARA, MAHARASHTRA

Year of Publishing: 2015

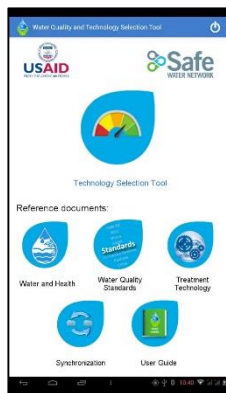
Author (s): Poonam Sewak, Sameer Muthreja

Focus: Impact of safe drinking water provision in Bhandara, Maharashtra

This report captures how the impact created on the 10 communities where iJal Safe Water Stations were commissioned with support from Bharat Heavy Electricals Limited (BHEL) in quality-affected regions of Bhandara district.



Safe Water Network's mission is to promote the scale up of Small Water Enterprises (SWEs). It develops Decision Support System (DSS) digital tools to enable entrepreneurs, communities and WASH promoters to own and operate sustainable SWEs.

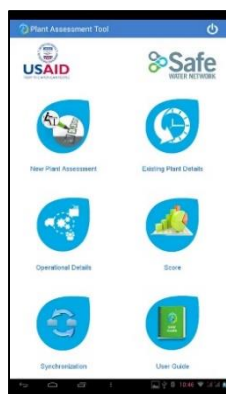


TECHNOLOGY SELECTION TOOL

Year of Development: 2016

Focus: Treatment Technology Selection and Recommendations

Used to select appropriate technology for water purification based on water quality contamination. It allows for comparison of water quality parameters to various international standards; including WHO Guideline Values, Bureau of India Standards, etc. It suggests primary and secondary treatment technologies and compares the treatment options using a star rating across Capital Cost, Operating Cost, Water Quality and Environment-friendliness. The tool has brief descriptions of various technologies, water quality parameters and their definitions, importance of safe water to humans, health hazard of impure water etc.



PLANT ASSESSMENT TOOL

Year of Development: 2016

Focus: Small Water Enterprise assessment as per different parameters for sustainability

Used to assess the performance of Small Water Enterprises (SWEs or, water purification plants) at community level. It assesses the plant performance against specific Performance Standards on the basis of five criteria: Social, Operational, Financial, Institutional, and Environmental (SOFIE). The tool evaluates performance of SWEs and delivers a quantifiable SOFIE score on each of the five evaluation criteria both in a graphical and tabular format. It provides insights in decision making to improve the plant performance for sustainability.



FINANCIAL VIABILITY TOOL

Year of Development: 2016

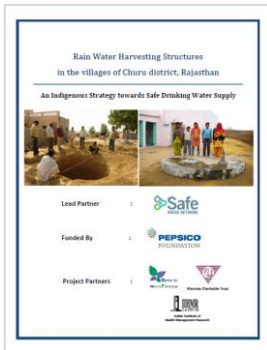
Focus: Financial Viability Assessment of Small Water Enterprises

Used to record, process, tabulate and evaluate financial and operational information for WASH Entrepreneurs. It supports financial decisions in relation to capital allocation, with ready calculators, for return on investment, viability period and drives superior performance over time. The tool also aids decisions for aggregators to evaluate cluster viability, calculate subsidies required to ensure financial viability and payback period. In addition, the tool provides users with ready graphs and charts to better understand information over time along with sensitivity analysis.

RAINWATER HARVESTING PROGRAM

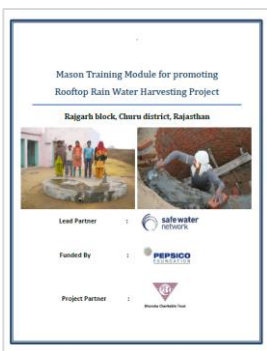


Rainwater Harvesting Program spanned across 2008 to 2010, whereby over 1,000 rooftop rainwater harvesting cisterns (or, *kunds*) – community and household – were constructed in 55 villages in the Churu district of Rajasthan state. This benefitted more than over 17,000 people, majority of which residing below the poverty line).



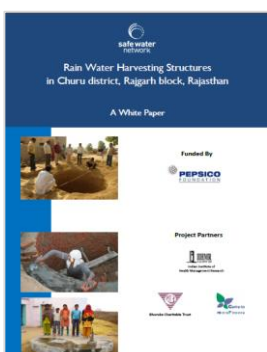
RAINWATER HARVESTING STRUCTURES IN THE VILLAGE OF CHURU DISTRICT, RAJASTHAN- AN INDIGENOUS STRATEGY TOWARDS SAFE DRINKING WATER SUPPLY

This report details the Rainwater Harvesting Program – how the structures were developed in a sustained way, to ensure safe drinking water is made available to approx. 17,000 poor families in Churu district, Rajasthan. The project created total water storage capacity of 24 million liters by constructing 975 household cisterns and 40 community cisterns.



MASON TRAINING MODULE FOR PROMOTING ROOFTOP RAIN WATER HARVESTING PROJECT

This module is designed to support Rainwater Harvesting Program for communities having lack of access to safe water. The program that spanned for a couple of years (2008-2010) including providing a comprehensive training (step-wise guidebook) to the masons on how to build sustainable rainwater harvesting structures – brick-based 20,000 liters *tankas* (cisterns) for the communities as well as households and ensure their operations and maintenance.



RAINWATER HARVESTING STRUCTURES IN THE VILLAGE OF CHURU DISTRICT, RAJASTHAN- A WHITE PAPER

This White Paper, conducted in partnership with the Indian Institute of Health Management Research (IIHMR) – Jaipur (Rajasthan), encapsulates the entire Rainwater Harvesting Program and its success story, including the social and demographic profile of the project villages in question; the economic profile of people in these project villages; and the social and economic dimensions of the variables related to water, sanitation, and health issues.



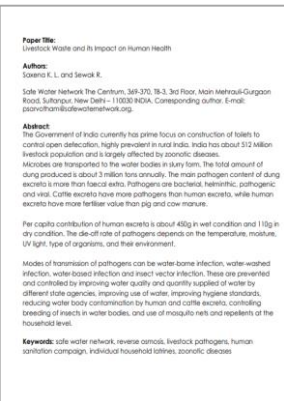
FLUORIDE IN GROUNDWATER: EVALUATION OF REMOVAL METHODS

Year of Publishing: 2016

Author (s): Dr. K.L Saxena, Ravindra Sewak, Robert Stea

Focus: Prevention and control of fluorosis

This Paper highlights the various methods of treatment and their advantages and disadvantages in detail, and recommends suitable treatment technologies for fluoride removal from groundwater to bring down the fluoride level as per national drinking water standards.



LIVESTOCK WASTE AND ITS IMPACT ON HUMAN HEALTH

Year of Publishing: 2016

Author (s): Dr. K.L Saxena and Ravindra Sewak

Focus: Impact of livestock on human health

Livestock rearing is an integral part of the Indian culture and is a key component of the agriculture and economic activities. India has about 512 mn livestock population and is largely affected by zoonotic diseases. The Paper informs how this can be prevented and controlled through improved water quality and quantity supplied by state agencies, hygiene standards amongst other key measures.



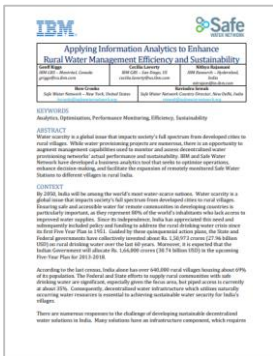
FLUORIDE CONSUMPTION IN ENDEMIC VILLAGES OF INDIA AND ITS REMEDIAL MEASURES

Year of Publishing: 2015

Author (s): Dr. K.L Saxena and Ravindra Sewak

Focus: Impact of Fluoride consumption and its remedy

Fluoride ingestion is caused not only through water but also through food, tea, toothpaste, milk, etc., in the ratio of 30:40 from food and 60:70 from water as per prior literature surveys. To control its overall intake, the only controllable aspect is water recommended at 0.5 mg/day/kg of body weight maintaining good health.



APPLYING INFORMATION ANALYTICS TO ENHANCE RURAL WATER MANAGEMENT EFFICIENCY AND SUSTAINABILITY

Year of Publishing: 2019

Author (s): Geoff Riggs, Cecilia Laverty, Nithya Rajamani, Hew Crooks, Ravindra Sewak

Focus: Use of Business Analytics in performance monitoring of water stations

This paper appraises the use of business analytics tool that seeks to optimize operations, enhance decision-making, and facilitate the expansion of remotely monitored Safe Water Stations to other villages in rural India. Data management is not a core competency of most decentralized water provisioning organizations, yet most must process an ever-increasing amount of data and attempt to extract business intelligence



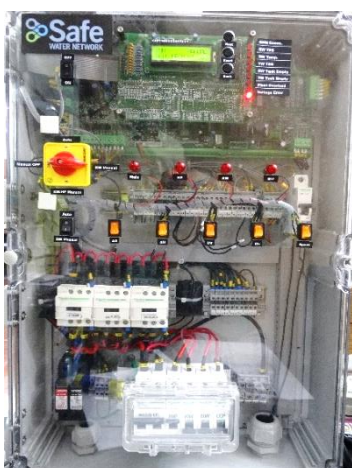
REMOTE MONITORING OF SMALL WATER ENTERPRISES FOR SUSTAINABLE SAFE DRINKING WATER ACCESS AND DATA ANALYTICS FOR PREDICTIVE MAINTENANCE

Year of Publishing: 2019

Author (s): Ravindra Sewak, Poonam Sewak, Pooja Singh, Arvind Nagwani

Focus: Decentralized rural water access programs

This paper presents a case study of iJal Safe Water Stations in India that use IoT-based parametric monitoring systems to raise automatic alarms and send regular alerts, to facilitate both local operations and remote diagnostics conducted by a service entity to identify service and spare-parts requirements on a timely basis.





DRINKING WATER AVAILABILITY AND ACCESSIBILITY

Year of Publishing: 2017

Author (s): Poonam Sewak, Pooloma Ghosh, Amanda Gimble, Shrestha Choudhury, Pooja Singh, Garvita Chawla

Focus: Deploying SWEs to provide rapid and safe drinking solutions

This Paper informs the status of rural drinking water supply as per India's NRDWP with a focus on rural water supply in Telangana and identify how SWEs can play an important role in providing decentralized, affordable safe water to communities complementary to piped water supply.



EVALUATING THE CURRENT STATUS OF DECENTRALIZED GOVERNANCE: TRANSFORMATIONS TO REACH 'HAR GHAR JAL' BY 2030

Year of Publishing: 2017

Author (s): Poonam Sewak and Shrestha Chowdhury

Focus: Decentralized rural water access programs

This paper assesses the current state of decentralized governance of water programs and challenges in efficient implementation of rural water programs. Utilization and monitoring of support funds at state and district levels critical to the long-term sustainability of community water programmes are assessed.



PRINCIPLES OF LEAN MANAGEMENT SYSTEM

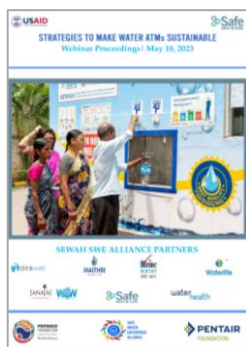
Year of Publishing: 2014

Author (s): Ravindra Sewak

Focus: Towards optimizing capital and operating expenses and ensuring model sustainability

This Paper talks about optimizing capital and operating costs to make Water Treatment model economically sustainable and viable, using Lean Management theory of ELIMINATE, COMBINE, REDUCE, SIMPLIFY (ECRS).

BEYOND THE PIPE FORA



BEYOND THE PIPE FORUM 2023: STRATEGIES TO MAKE WATER ATMs SUSTAINABLE

Hosted in: May 2023

Focus: Strategies to make Water ATMs sustainable; for e.g. results-based funding

The Forum received Special Remarks from the Delhi Jal Board, Chief Engineer, and marked the release of the Report on 'Financial & Operational Performance of Safe Water Enterprises in India' by panelists. The event had participation from ULBs, Water Board, SWE implementers, funders, water sector experts, civil society organizations and academia.



ROUNDTABLE WORKSHOP: ROLE OF FIELD SERVICE ENTITY TO PROMOTE RELIABLE WATER SUPPLY FROM WATER ATMs

Hosted in: May 2022

Focus: Regulation on use of Membrane based Water Purification System

The Workshop promoted knowledge exchange, peer-to-peer learning, and sharing challenges to maintain the uptime of Water ATMs, in the light of low revenues from water sales, spares not readily available, and the high cost of technicians travel to long distances. The FSE service delivery aggravated due to adverse impact on their operations during pandemic. The [SWE Alliance](#) partners shared their experiences and the need for various resources for ensuring sustainability.



VIRTUAL TRAINING PROGRAM ON NON-REVENUE WATER & WATER QUALITY

Hosted in: Dec 2020

Focus: Reduction of Non-Revenue Water and Improving Water Quality

The webinar involved participation of various senior government officials from Public Health & Engineering Department and Engineers from various Urban Local Bodies in the state as per facilitation by Madhya Pradesh National Institute of Governance and Urban Management. The event focused on building the capacities of the ULBs of the MP state of India, on themes including NRW reduction, Water Quality Monitoring and Surveillance, Community Engagement of slum households.



VIRTUAL ROUNDTABLE ON PRIVATE SECTOR ENGAGEMENT FOR SCALING UP SMALL WATER ENTERPRISES

Hosted in: June 2020

Focus: Partnering for Sustainable Scale in Community Safe Water Solution

The Webinar focused on discussing and generating ideas among the Central Government, State Administration and ULBs, to attract private sector investment for Safe Water Enterprises (SWEs) in the country as complementary safe drinking water solution to piped water thus contribute towards UN SDG 6.1.



WEBINAR ON IMPACT OF DRAFT NOTIFICATION ISSUED BY MoEF ON SWE SECTOR

Hosted in: June 2020

Focus: Regulation on use of Membrane based Water Purification System

The webinar invited opinions from various SWE implementers on the notification issued by Ministry of Environment, Forest and Climate change (MoEF). The webinar facilitated a dialogue between the MoEF notification impact and SWE practitioners seeking perspectives primarily on four points: (a) Are the prescribed recovery rate of 80-90% to be achieved by 2021-2022?; (b) Is it applicable to village level SHG, women Entrepreneurs, Community Groups currently being mobilized by this sector; (c) Will the detailed consents/ approvals/licenses required for operation – Are we back to Panchayat Raj? And (d) Does this notification incapacitate the small-scale industries serving the water sector?



WEBINAR ON SMALL WATER ENTERPRISES STRATEGY TO ADAPT DURING COVID-19

Hosted in: May 2020

Focus: Partnering for Sustainable Scale in Community Safe Water Solution

The Webinar focus on promoting knowledge exchange and discuss scale up strategies among SWE implementers under the aegis of SEWAH – ‘Sustainable Enterprises for Water and Health’. 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 at the beginning of the peak summer, during which more than 50% of annual business is transacted by water sale.



BEYOND THE PIPE 2018: SMALL WATER ENTERPRISES TO MITIGATE THE DRINKING WATER CHALLENGES

Hosted in: 2018

Focus: Launch of Small Water Enterprises (SWE) alliance

The key highlight of the forum was launch of SWE Alliance web portal (www.swealliance.org), accessible to members interested in exploring information related to small water enterprises and participating in discussion forums. The Forum also facilitated a dialogue between the FSSAI Standards Regulator and SWE practitioners seeking perspectives on water quality regulation, with a particular focus on FSSAI’s draft regulation for unpackaged drinking water at automatic vending machines to come under the same regulation as packaged drinking water.



BEYOND THE PIPE FORA



BEYOND THE PIPE 2017: SCALING SMALL WATER ENTERPRISES FOR SAFE, AFFORDABLE DRINKING WATER TO POOR

Hosted in: 2017
Focus: Decentralized rural water access programs

This forum brings together diverse stakeholders to discuss insights and proposed recommendations for addressing the barriers to scale USWEs in India, focusing on how we recreate a conducive policy and enabling environment for USWEs. This includes adopting policies, plans and models to encourage public private partnerships and attract financing, as well as the performance standards and tools to ensure that USWEs meet water quality, affordability, reliability and other standards.



BEYOND THE PIPE 2016: CHARTING THE ROADMAP TO SCALE SMALL WATER ENTERPRISES

Hosted in: 2016
Focus: Rapid emergence of SWEs as a response to inadequate and unsafe supply of drinking water in urban slums

The Forum marked the launch of three digital tools developed which serve as open source decision support: (i) Technology Selection Tool (TST); (ii) Plant assessment Tool (PAT); (iii) Financial Viability Tools (FVT). This Forum also captures the drinking water supply situation from field surveys & interviews in four cities; Hyderabad, Mumbai, Delhi & Vizag.



BEYOND THE PIPE 2014: PARTNERING FOR SUSTAINABLE SCALE IN COMMUNITY SAFE WATER SOLUTION

Hosted in: 2014
Focus: Partnering for Sustainable Scale in Community Safe Water Solution

The Forum provided a platform for CSWS implementers and Telangana's state government, along with their advisors, to share stakeholder-specific challenges and chart a way forward for Public Private Partnerships (PPPs). These partnerships have great potential to achieve sustainable scale of community water solutions that are socially inclusive and affordable. Participants included leaders from the Telangana government, CSWS implementers from across the country, corporates, Public Sector Undertakings (PSUs) and civil society.

MEET THE AUTHORS



KURT SODERLUND

Kurt is the founding CEO of Safe Water Network and a member of its Board of Directors. He has applied both his private sector and not-for-profit experiences to develop the organization's market and growth strategies and conceive of the organization's business models to address the considerable challenges of fragmented, base-of-the-pyramid markets. He also built Safe Water Network's international presence, supporting multiple field initiatives and market development programs. Kurt has degrees from Cornell University and the Kellogg School of Management at Northwestern University.

POONAM SEWAK

Poonam brings over 25 years of rich multi-disciplinary experience in policy, strategy consulting, research, entrepreneurship and institution building. She has founded the organization's flagship sustainable social enterprise model, 'iJal stations'. Poonam has co-authored sector reports in Drinking Water Sector and has also provided policy recommendations to the 'National Rural Drinking Water Program' of the Ministry of Drinking Water and Sanitation for 'Har Ghar Jal' vision by 2024. Poonam has conceptualized the Small Water Enterprise Alliance, a multi-sectoral partnership for sector collaboration and advancement of SWEs. She is currently a Member of the Bureau of Indian Standards committee and a Guest Speaker at national and international forums. She holds a Master's degree in Pharmacy from the Nagpur University with a Gold Medal in her graduation.



AMANDA GIMBLE

Amanda is the former Senior Vice President of Strategic Initiatives with Safe Water Network, where she was majorly engaged in developing initiatives to improve and scale our model. This included developing the evidence base for our approach and its impact on communities, sector engagement internationally, as well as knowledge products. Drawing upon her strategic planning and financial experience attained at Merrill Lynch, Amanda implemented a comprehensive consumer market development program and conducted market assessments. Amanda was also a senior consultant at KPMG and has advised several not-for-profits. She holds a Bachelor's degree from Hunter College and a Master's degree in finance and marketing from the Kellogg School of Management at Northwestern University.

POOJA SINGH

Pooja is a WASH specialist who has been engaged in project management, strategic planning, gender analysis, knowledge documents, WASH-related sector reports, research, and communications for more than 13 years. She also represented Safe Water Network at SIWI, Stockholm and informed gender empowerment program initiative by the organization. She has previously worked with FICCI as Assistant Director – ASEAN Division. Pooja is an Environmental Law post-graduate from National Law School of India University, and has a Master's degree in International Business. She has also earned certification in "International Water Law" from University of Geneva and UNITAR.



ARVIND NAGWANI

Arvind brings over 18 years of experience, predominantly in Information Technology. His career began at Siemens Information Systems Limited followed by as business unit head for start-up Manchitra Services. He holds past experience in providing solutions in the field of GIS and workforce management, and managed accounts of India's largest telecom service provider, Airtel. Having worked with African clients such as TELMA (Madagascar), UTL (Uganda), and MTN (Uganda), Arvind is also engaged for Safe Water Network's commitment to collaboration between our Ghanaian and Indian operations. He holds a degree in science (physics, statistics, and mathematics) and completed post-graduation in IT from the S. P. Jain Institute of Management & Research, Mumbai.

MEET THE AUTHORS



RAVINDRA SEWAK

Ravi is the co-founder of Safe Water Network in India since 2009, and has been overseeing Safe Water Network's rapid growth and developing the standards and systems to support large scale replication. He has facilitated 330 iJal Water Stations in India, providing affordable safe water access to over 1.2 million people. He holds over 30 years in water and waste-water operations, bulk-water processing, green energy, and point-of-use purification systems for the PepsiCo vending machines in the past, as their Sustainability Director, India. He is on the standards forming committee for water and beverage of BIS FAD 14; a Member of the National Water Committees of the FICCI, CII, & PhD Chamber of Commerce. He has also mentored at the Legatum Center at MIT and Santa Clara University in the past. Ravi has a Master's from Indian Institute of Management, Ahmedabad, and is a graduate in BE.

SHANKER BATRA

Shanker heads the Operations in the field, and is responsible for planning & reporting, consumer activation programs, sales process optimization, sales training, program implementation, sales administration, and overall productivity and effectiveness of the sales operations. Having formerly worked with PepsiCo, Shanker brings over 15 years of experience in new market development, strategic planning and system implementations. His insight and implementation skills helped rapid rural distribution expansion and company profit lines in terms of service market expansion to over 150 million people in rural populations with organized awareness and communication activities. He was awarded the BU ring of Honors in 2006 for his remarkable rural execution and outstanding sales. Shanker holds a Master's in Business Administration, with specialization in Marketing from Sikkim Manipal University.



PALLAVI MUKANE

Pallavi works as Program Manager, as a part of the Technical Support Unit supporting the Government of India's Ministry of Housing and Urban Affairs (MoHUA). She is passionate about working in WASH services, governance, urban consultancy, and process excellence. She has played a key role in Policymaking, Planning, and development of AMRUT 2.0 Guidelines, City Water Balance Plan template, and Reforms toolkit under Mission. She previously worked at CEPT University in project implementation of a performance assessment system for WASH services of various states of India. Pallavi is an Environmental Planning post-graduate from CEPT University Ahmedabad and holds a MS in Environmental science from the Institute of Science, Mumbai.

SHVETA MAHAJAN

Shveta supports the research, design, and evaluation of Safe Water Network India's partner program initiatives, research-based reports, impact assessments, and case studies through field-based learnings. She also engages in water quality monitoring as a part of the Quality team. Having previously worked as a Research Associate at the Indian Institute of Technology, Delhi, Shveta's research interests are in the field of biomedical engineering—specifically the development of polymeric-inorganic hybrid nanosystems as contrast agents for magnetic resonance imaging (MRI). Shveta holds a PhD in Polymer Science and Biomedical Engineering from the Indian Institute of Technology, Delhi.



MEET THE AUTHORS



REENA KUMARI

Reena supports the Market Development team, where she applies market research techniques and consumer insights, and prepares reports. She brings more than eight years of experience to her position, having worked with organizations such as Xchanging Plc, Mott Macdonald, and InfoTech Global India Ltd. Reena holds a Master's degree from the Alliance School of Business, Bangalore, and a Bachelors of Technology (with a specialization in Biotechnology) from the Allahabad Agricultural Institute, Allahabad.

SHWETA ARORA

Shweta brings her demonstrable skills into preparing village-level financials in QuickBooks, Tally and Fund-EZ; financial accounting; book-keeping and monitoring bank-related activities. She is also responsible for procurement, managing budgets, assisting in audits and employee compensation management and reimbursements. Shweta brings over 8 years of prior experience in accounting and bookkeeping. At PepsiCo India, she managed project procurement, MIS and liaising with concerned project personnel, before beginning her journey with Safe Water Network. She holds a Master's degree in Finance from the Sikkim Manipal University.



ARVIND DESHMUKH

Arvind Deshmukh has an extensive experience in sales, account management, research and project management in the IT and Higher Education sectors. Prior to joining Safe Water Network, Arvind has worked with organizations like Arizona State University, Thunderbird School of Global Management, Akamai Technologies, HCL and IBM in various roles. Arvind shoulders the responsibility of developing content for reporting and publications at SWNI. He also manages the Small Water Enterprise (SWE) Alliance network and is responsible for driving engagement within the alliance

NIDHI MODI

Nidhi supports the Finance team, where she applies her financial and business analytic skills and prepares presentations and reports. She brings more than eight years of experience to her position, having worked with investment banking and consulting firms. For a short stint, she has also worked with a small manufacturing enterprise and applied her skills in retailing and branding of their home grown brand along with managing the entire supply chain team. Nidhi holds a Master's in Business Administration in Finance degree from the Indian Education Society, Mumbai, and a Bachelor of Management from the Mumbai University.



For more information:

Safe Water Network India
The Centrum, 369-370, III Floor
Main Mehrauli-Gurgaon Road
Sultanpur, New Delhi 110030 INDIA



<https://www.swealliance.org>



<https://www.safewaternetindia.org>



<https://www.facebook.com/safewaternet>



<https://twitter.com/safewaternet>



<https://www.instagram.com/safewaternetnetwork/>



<https://in.linkedin.com/company/safe-water-network>



<https://www.youtube.com/user/safewaternetnetwork>

USAID **Safe**

AUGUST 2022 **CITY WATER COMPENDIUM**
MAKING CITIES WATER POSITIVE

SEWAH Sustainable Engagement for Water And Health

IJDR International Journal of Development Research

Full Length Research Article
FLUORIDE IN GROUNDWATER: EVALUATION OF REMEDIATION METHODS

Dr. Suman, K. J., Suman, R. and Suman, R.

Safe Water Network, San Carlos, CA, USA; IIS, San Carlos, California, California, USA; San Carlos, CA, USA

ABSTRACT
Groundwater is a vital source of water for drinking and irrigation. However, it is often contaminated with various pollutants, including fluoride. Fluoride is a naturally occurring element that is essential for human health in small amounts. However, excessive fluoride in drinking water can lead to various health problems, including dental and skeletal fluorosis. This paper reviews the current status of groundwater fluoride contamination and discusses various remediation methods, including reverse osmosis, ion exchange, and adsorption. The paper also discusses the challenges associated with groundwater remediation and provides recommendations for future research and policy development.

NEW INSIGHTS SERIES SEPTEMBER 2021 **Safe**

CONSUMER ACTIVATION IN INDIA, PART I

Understanding the Consumer

Consumer demand is critical to the financial sustainability of a water system. To increase utility and use, water providers in low-income and informal settlements face numerous challenges. This report explores the role of consumer activation in increasing use and revenue. It examines the current status of consumer activation in India and provides recommendations for improving it. The report also discusses the challenges associated with consumer activation and provides recommendations for future research and policy development.

PROGRAM SUMMARY

- **Objective:** Understand why factors influence consumer activation in India.
- **Methodology:** Focus group discussions, surveys, and interviews with utility providers, consumers, and community leaders.
- **Key Findings:** Consumer activation is low in India, particularly in informal settlements. Factors influencing activation include lack of information, low income, and poor service quality.

KEY INSIGHTS

- **Information:** Lack of information about water services and billing is a major barrier to consumer activation.
- **Income:** Low income levels make it difficult for consumers to pay for water services.
- **Service Quality:** Poor service quality, including unreliable supply and poor customer service, discourages consumers from using water services.

Background: The Challenge of Building Sustained Demand

Water utilities in low-income and informal settlements face a significant challenge: how to build sustained demand for their services. This is because these areas often lack the infrastructure and resources needed to provide reliable water services. Additionally, consumers in these areas often have low income levels and may not have the resources needed to pay for water services. This report explores the role of consumer activation in increasing use and revenue and provides recommendations for improving it.

USAID **Safe**

URBAN DRINKING WATER SUPPLY FOR URBAN POOR: ROLE OF URBAN SMALL WATER ENTERPRISES

OCTOBER 2016

accenture **PEPISCO** **NIRMAANS CHRY** **PENTAIR**

Safe

HAR GHAR JAL BY 2030: CURRENT STATUS & NEXT STEPS

MINISTRY OF DRINKING WATER AND SANITATION GOVERNMENT OF INDIA

INDIAN COUNCIL OF PUBLIC RELATIONS **KPMG** **INDIAN COUNCIL OF PUBLIC RELATIONS**

Safe

EVALUATING THE CURRENT STATUS OF DECENTRALIZED GOVERNANCE: TRANSFORMATIONS TO REACH HAR GHAR JAL BY 2030

ANALYSIS REPORT

Water is a vital resource for human health and well-being. However, access to safe drinking water is a challenge in many parts of the world, particularly in low-income and informal settlements. This report evaluates the current status of decentralized governance in India and provides recommendations for improving it. The report also discusses the challenges associated with decentralized governance and provides recommendations for future research and policy development.

Meeting India's Rural Water Gap

India's rural water supply is inadequate, with millions of people lacking access to safe drinking water. This report discusses the challenges associated with meeting India's rural water gap and provides recommendations for improving rural water supply.

Meeting India's Urban Water Gap

India's urban water supply is also inadequate, with millions of people in informal settlements lacking access to safe drinking water. This report discusses the challenges associated with meeting India's urban water gap and provides recommendations for improving urban water supply.

Impact of the 100 Pradesh Commission

The 100 Pradesh Commission was established to identify and address water supply issues in 100 districts across India. This report discusses the impact of the commission and provides recommendations for improving water supply in these districts.

Safe

IMPACT ASSESSMENT: EXPANSION OF SAFE DRINKING WATER TAP STATIONS IN TELANGANA: COST-EFFECTIVE, REPLICABLE, SUSTAINABLE SERVICE DELIVERY

RESEARCH PARTNER: **IMRB** **SAFE PARTNER: Honeywell**

IMPACT ASSESSMENT REPORT August 2015

Impact of safe drinking water provision in 10 villages of Mandla district, Madhya Pradesh, India

Safe **SAFE PARTNER: Honeywell**

USAID **Safe**

Recommended SMALL WATER ENTERPRISE PERFORMANCE STANDARDS

PEPISCO **INDIAN COUNCIL OF PUBLIC RELATIONS** **INDIAN COUNCIL OF PUBLIC RELATIONS**

Do-It-Yourself Implementation Guide

safe water NETWORK

safe water NETWORK www.safewater.org