Impact Assessment

Report IJAL Water Stations

Honeywell Hometown Solutions India Foundation (HHSIF)

Powering the world of good

Goodera

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1. EXECUTIVE SUMMARY

A safe water supply is the backbone of a healthy economy, yet is under prioritized, globally. Water is an essential part of human existence that heavily influences public health and living standards. Population growth, accompanied by increased water use, only reduces the water availability per person but also creates stress on biodiversity in the entire global ecosystem. Over the last few decades, the water consumption has increased tremendously, almost seven times of what it was a century ago. It thus, calls for a necessary action and active measures by the government and other agencies.

Honeywell Hometown Solutions India Foundation (HHSIF) addresses the needs of the community with installation of safe water stations across multiple locations in rural India. The project was executed in collaboration with Safe Water Network India (SWNI) as an implementing partner and resulted in installation of 189 advanced iJal stations, along with streamlining of its operations and maintenance between FY 2015-2019. In FY2020, the HHSIF extended its 8th grant amounting to INR 2,43,63,000 towards sustainability of existing 189 iJal safe water stations in rural/peri-urban/urban villages/cities. This includes funding support of INR 81,39,000 towards the implementation of safety measures against COVID-19 for the existing Honeywell cluster of 189 safe water stations.

To gauge the impact of the project for FY2020, an assessment study was conducted for HHSIF to understand the perspectives and experiences of the stakeholders and assess the changes it has brought in the lives of the people in terms of livelihood, health, and hygiene, promoting social inclusion, potable water, and sanitation, especially in the states of Telangana, Maharashtra and Karnataka in response to their needs.

A Logical Framework Analysis was conducted initially against the expected theory of change, to understand the parameters, indicators, output, outcome, and the overall impact. We used the mixed method to collect and analyze qualitative and quantitative data. Interviews and surveys were conducted with all the identified stakeholders of the program as for the derived sample size for each. The assessment is based on convenience sampling for physical site visits due to lack of cooperation from the implementing partner for virtual interactions with the stakeholders. Hence, limited in sample size. The data was then interpreted using descriptive statistics and content analysis.

The program **supported 6,90,744 individuals** through **189 water stations across 3 states. The program also offered** skill building and livelihoods generation for **418 households** through individual entrepreneurship/SHG-linked operations with **35% female workforce participation in form of Water Aunties**

Overall, the program addresses the lack of access to safe drinking water through the community

managed water stations. Low price point and proximity to the habitations are the two key factors that bring in affordability and accessibility for the drinking water. The supervision by SWNI team in monitoring and maintenance has helped the project various other challenges faced by its impact peers. Based on sample beneficiary responses which confirmed that the stations remained operational during the pandemic period, it can be inferred that the program also exhibits high resilience during the pandemic with less than 2% down time. CSR Program team and SWNI built capacity of the staff and community for COVID-19 safety. It also encouraged digital payments and about 80% of the transactions were made via digital mode during the pandemic.

While the HHSIF supports the technical monitoring and maintenance, the village level operational expenses are borne by the entrepreneurs/ village committees which has instilled a sense of operational ownership within the community. There was a 100% brand recall for Honeywell amongst the various sample stakeholders interviewed. **Benchmarking the project against other models in the safe water ecosystem** suggests that iJal has a robust and transparent model. Its participatory and context specific approach offers the community to decide upon the model, site selection and other operations. Thus, it ensures that the water is affordable and accessible to all through this approach. We observe that the industry peers offer water within the price range of INR 2/ 20 L to INR 8/ 20 L. Although iJal deploys a more advanced and expensive technology for water purification, the price of water cans is between INR4/20 L- INR 8/20L, which is relatively lower than a few peers in the industry. While the other community managed solutions such as Balvikasa and Sarvajal provide ownership of the kiosks to the community, SWNI model provides only partial ownership to the community (operations), whereas the technology and equipment is owned by SWNI. Average project cost for iJal is INR 24,82,315 whereas that of similar stations at the same time was approximately INR 4,50,000. While the model and advanced technology ensure delivery as per the standards along with convenience for the beneficiaries, it incurs approximately 5 times higher expenditure as compared to other peers in the space.

The project presents an opportunity to **enhance the adoption and uptake of the scheme within the community**. Currently, only 51% of the households from the clusters have registered for iJal stations. Each iJal station is able to generate an average revenue of INR 20,000/ month, out of which, INR 8000-10,000 is the profit earned by the entrepreneurs. Remaining operational support is borne by HHSIF through the CSR grant support. Thus, the project faces challenges of meeting its operational expenses through the revenue, highlighting the need for **optimizing the operational costs, seeking convergence with government initiatives, and establishing clear guidelines on self-sustainability** of the project upon exit of the donor agency. Aggressive demand activation is recommended through awareness campaigns, recognition for entrepreneurs through financial or service incentives for increased sales and promoting indirect consumption to overcome the low uptake and adoption at village level.

2. INTRODUCTION

Water is an essential component of life, and it has a large impact on quality of human life. The increase in demand/ consumption of water and depletion of existing water sources has led to stress on the ecosystem. Under these circumstances, many countries in the world still lack access to safe drinking water, highlighting the importance of bringing the focus of government agencies, corporates, and other stakeholders to take necessary action towards it.

2.1. Access to Safe Drinking Water in India

India's population faces severe challenges in terms of access to safe drinking water. Less than 50 per cent of the population in India has access to safely managed drinking water. Chemical contamination of water, mainly through fluoride and arsenic, is present in 1.96 million dwellings[1]. Nearly 75% of India's surface water is contaminated by human, animal, agricultural and industrial waste, and its groundwater often contains high levels of fluoride and other mineral contaminants. Water and sanitation-related illnesses account for 70-80% of the country's disease. Water scarcity during periods of drought, lack of education, and the sheer number of people in extreme poverty adds to the complexity. Progress towards addressing these issues is hampered by poor execution and a lack of support at the local level. Many of India's rural water systems fail because of issues surrounding source sustainability and water quality. Inadequate operational controls and maintenance programs result in communities that lack the skills to manage their water systems, further compounding the complexity of India's water issues.

2.2. Interventions for Safe Drinking Water

The government of India has made efforts towards water conservation and providing drinking water to the people. The Jal Jeevan Mission with the motto of "Har Ghar jal" stands as a pivotal structure for the population who are deprived of drinking water and their right to lead decent life and human dignity. It further addresses the community approach to water, extensive information, education, and communication as the key component[2].

In addition, many organizations have been working at the grass root level to combat the water problems and provide a better standard of living to the people with pure and hygienic drinking water. With this backdrop, Safe water network has contributed tremendously to bring safe, affordable drinking water access to the communities

[1] Clean Drinking Water, UNICEF. https://www.unicef.org/india/what-we-do/clean-drinking-water [2] Drinking Water Specification, BIS 2012. http://cgwb.gov.in/Documents/WQ-standards.pdf

living beyond the pipe. SWNI collaborates with leaders from both the public and private sectors to develop and implement a model that can achieve scale for millions in need. They also work in alignment and partnership with local communities and government at local and state levels in the states of Telangana, Maharashtra, and Uttar Pradesh. In a span of over 11 years, Safe Water Network India has provided affordable access to safe water to 1,269,509 people through 342 ‘iJal’ water stations with water ATMs.

3. PROJECT BACKGROUND

Telangana comprises 35.19 million people, as per Census 2011, making it the twelfth largest state in India in terms of the population size and area. Only an estimated 54% of the urban population and 45.5% of the rural population has drinking water facilities in Telangana (as per analysis conducted by the Centre for Economic and Social Studies (CESS) and UNICEF, Hyderabad, Census 2011). Surface and subsurface water is polluted mainly due to fertilizers, pesticides, industrial pollution, and wastewater discharge into the river, whereas the groundwater is highly contaminated with fluoride, nitrate, and salinity. There are frequent episodes of waterborne diseases – diarrhea, jaundice, and typhoid, especially in the monsoon season. The community suffers from debilitating fluorosis that impacts the population from childhood, leading to stunting, teeth mottling in children, and youth skeletal fluorosis sets in leading to bending of the spine, small joint pains, and difficulty in mobility.

HHSIF realizes the importance of clean drinking water as fundamental to keeping good health and a major intervention for poverty alleviation and is committed to delivering safe water to communities aligned with the UN's Sustainable Development Goal 6.1. Partnering with Safe Water Network India, Honeywell India has sought to improve the lives of the rural poor by providing locally owned and -operated, affordable, sustainable water to communities to improve their health, generate livelihoods, and most importantly, enable girls to attend school regularly.

3.1. Objective

The project has an objective of bringing safe and affordable drinking water solutions to such quality-affected habitations through setting up of iJal stations, equipped with the reverse osmosis treatment technology to treat ground water and improve the health of the poor. Through its innovative operational model, the project also offers opportunities for income-generation for the community members.

3.2. Approach

1
Donors give grants to SWN to cover i) Capex for setting up the plants, ii)

2
SWNI undertakes site selection, and works with the local government and social entrepreneurs. SWN provides toolkits, conducts skill building and monitors processes

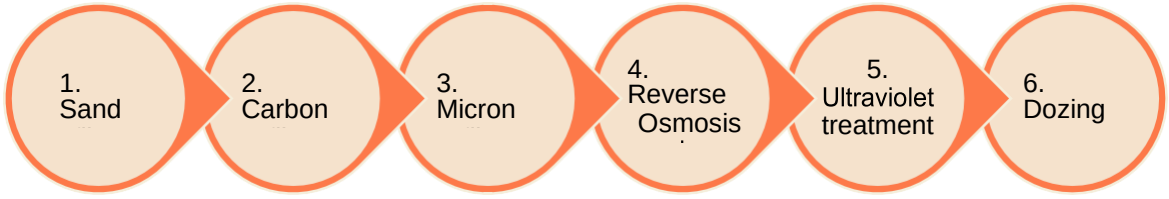
3
Field service entity is a separate non-profit entity nominated by SWINI for maintenance and repair of water stations and training of operators

4
Local government gives permissions to operate, raw water source and electricity connection. It also provides the

5
Consumers are walk in and those that get water delivered at

Purifying Technology

The water treatment technology involves a six-step purification process –



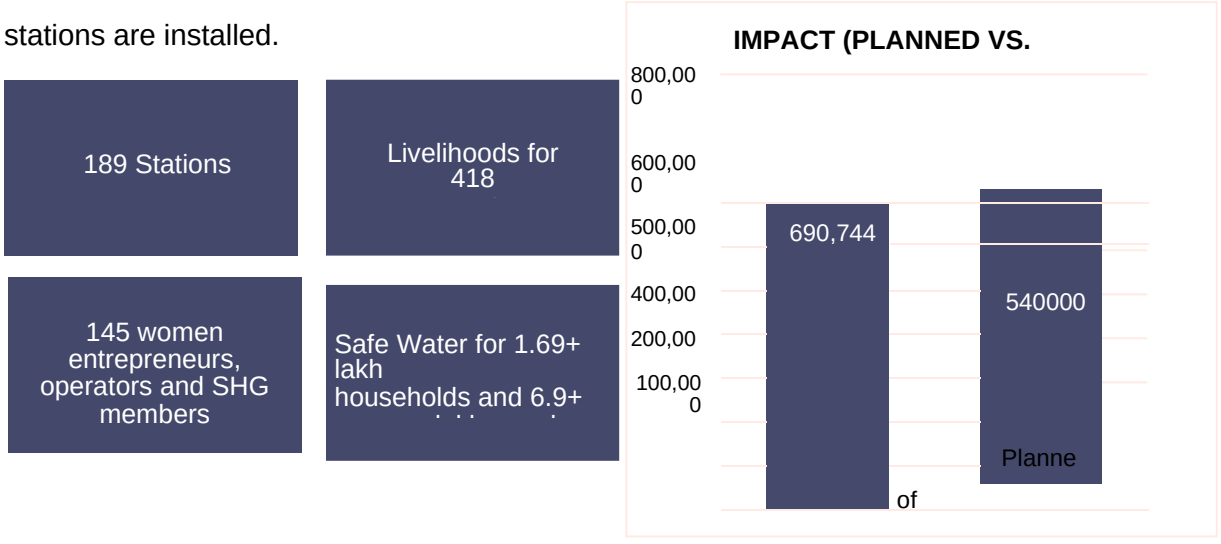
There are 3 separate dosing pumps for anti-scaling, pH, and chlorination. Water quality reports of raw water and treated water are monitored and displayed on the station site twice a year i.e., pre and post monsoon.

Remote Monitoring system

The daily operations of iJal stations are recorded through a remote monitoring system (RMS). Water is made available to the consumers 24x7 and can be paid for using Radio Frequency Identification (RFID) cards, digital payment gatewaysor cash. RMS enables 24x7 station monitoring, pertaining to water quality, station health, and consumer purchases.

3.3. Program Scale and Impact

As of date, a total of 189 Honeywell-sponsored stations (grants 1-7) bring water access to 6,90,744 people living in 1,69,265 households in Telangana, Maharashtra and Karnataka. The count of 189 stations includes the exited Garsekurthi station in Telangana[1]. The program has been able to successfully enroll about 51% households (average) of the total households from the villages/ clusters where the stations are installed.



[1] Station Mapping and Access Launch Database.

Locations	iJal Stations Installed	Population Access	Household Access
Karnataka	**2**	**10,120**	**2,400**
Gulbarga	2	10,120	2,400
Maharashtra	**34**	**1,18,105**	**28,644**
Chandrapur	13	51,386	12,395
Gadchiroli	11	28,899	7,475
Gondia	10	37,820	8,774
Telangana	**153**	**5,62,519**	**1,38,221**
Bhadradri Kothagudem	10	30,424	7,325
Hyderabad	22	66,000	16,500
Jagtial	2	3,808	1,499
Jangaon	2	10,013	2,279
JayASHAnkar Bhupalpalli	3	12,921	3,383
Karimnagar	9	40,989	9,811
Khammam	8	34,977	8,643
Komaram Bheem Asifabad	1	3,523	847
Mahabubabad	5	21,583	5,286
Mancherial	4	18,223	4,398
Medak	40	1,29,106	33,375
Peddapalli	8	32,058	7,468
Sangareddy	22	83,010	18,669
Suryapet	4	16,570	4,086
Warangal (Rural)	6	23,183	6,113
Warangal (Urban)	7	36,131	8,539
Grand Total	**189**	**6,90,744**	**1,69,265**

4. OBJECTIVES AND SCOPE OF STUDY

HHSIF extended its 8th grant amounting to **INR 2,43,63,000** in October 2020**, towards sustainability of existing 189 iJal safe water stations** in rural/peri-urban/urban villages/cities from October 2020 through March 2021. This includes funding support of **INR 81,39,000** towards the implementation of **safety measures against COVID-19** for the existing Honeywell cluster of 189 safe water stations.

4.1. Objectives

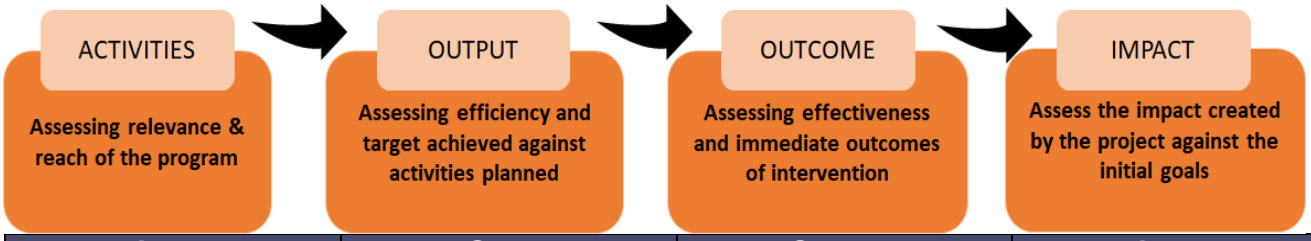
- To understand the knowledge, attitude, practices, and behavior of community towards various water sources' consumption, collection, and usage, including towards iJal.
- Perception of current sources of water regarding availability, timing, supply, quality, and other attributes
- Understanding impact of COVID-19 on the program
- Comparative analysis of iJal model with other ecosystem peers

4.2. Limitations of the study

- The impact assessment study is based purely on the physical visits and interactions conducted as no beneficiary/ stakeholder data was made available for virtual interactions by the nonprofit. Hence, limited in sample size for various stakeholders.
- The site sampling has been conducted considering the COVID-19 restrictions, resources availability, diversity in operating models and ease of access
- The study is limited to the beneficiaries and project stakeholders only. Non-beneficiary interactions through FGDs/ group interviews at community level couldn't be conducted due to COVID-19 restrictions for congregation during the period of the visit.
- The analysis is based on the availability of financial details and utilization reports for the period Oct 2020 – April 2021.

5. ASSESSMENT FRAMEWORK

The **THEORY OF CHANGE FRAMEWORK (ToC)** for the given program is illustrated below:



Input	Output	Outcome	Impact
• Household surveys, FGDs and stakeholder interviews for site and model selection	• Establishing the need and relevance for the project • Site selection • Model selection • Determining the source of water and pricing with stakeholder buy-in	• Proximate location of the water station that is convenient and accessible to all • Recognizing the community leader and the team for managing the deployment and operations	• Improved access to safe drinking water to the community • Awareness generated regarding importance of pure and safe drinking water • Reduced health problems • Time saved for fetching water from far away resources and reduction in uncertainty of water availability • Skill building and livelihood generation at local level through various opportunities available for the community members (entrepreneurship, operators, technicians, cluster coordinators, etc.)
• Environment building and SBCC activities	• Awareness amongst community about importance of safe drinking water, health issues arising out of contamination • Awareness about iJal installed in the village/ habitation	• Regular usage of the water station for direct and indirect consumption • Vigilance and awareness about various safety and security measures within the community	
• Provision of technology and infrastructure setup	• Installation of iJal stations and initiation of operations	• Purification of drinking water and availability for the community	
• Technical capacity building and nomination of operators	• Year-round maintenance and remote monitoring	• Low downtime and high efficiency • Continuous quality check and maintenance of set standards	

A **LOGICAL FRAMEWORK MODEL** is created against the identified ToC to reflect the identifiable indicators, means of verification, and assumptions, as given below:

	PARAMETERS	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
ACTIVITIES	• Raised Community awareness • Environment building activities • Household surveys • Operator nomination and training • Installation of iJal stations	• No. of sites shortlisted • No. of iJal stations installed • No. of awareness and capacity building sessions conducted • No. of people trained	• Participation registers, photographs, Survey data	• Cooperation of stakeholders • No corruption • No intercultural conflicts and resistance
OUTPUT	• Public awareness regarding safe water • iJal Station Commissioning • Operation of iJal water station • Registration of users • Detailed monitoring of the operation of iJal station	• No. of beneficiaries mapped • No. of registered users for the water station • Average frequency of water collection • No. of RFID cards issues • No. of RFID cards renewed	• Project monitoring through remote monitoring system (RMS) recorded data directly from web, Photographs	• Source drying up • Unavailability of operator • Unwilling community member

OUTCOMES 	• Awareness generated regarding importance of pure and safe drinking water • Easy access to safe drinking water • Increased usage of pure and safe drinking water	• % change in Ph, TDS, Chlorine for the water consumed (w.r.t. baseline) • Frequency of capturing RMS data • No. of personal interviews conducted • No. of FGDs conducted • Reduction in occurrence of water borne diseases • Time saved (No. of hours/ day) for	• Raw, treated and rejected water quality tests by Bhagwati Ana Labs • Evaluation survey data • Observation	• False rumors regarding iJal from troublemakers • Technical problems • Irresponsible operators might cause problems in functioning of iJal stations

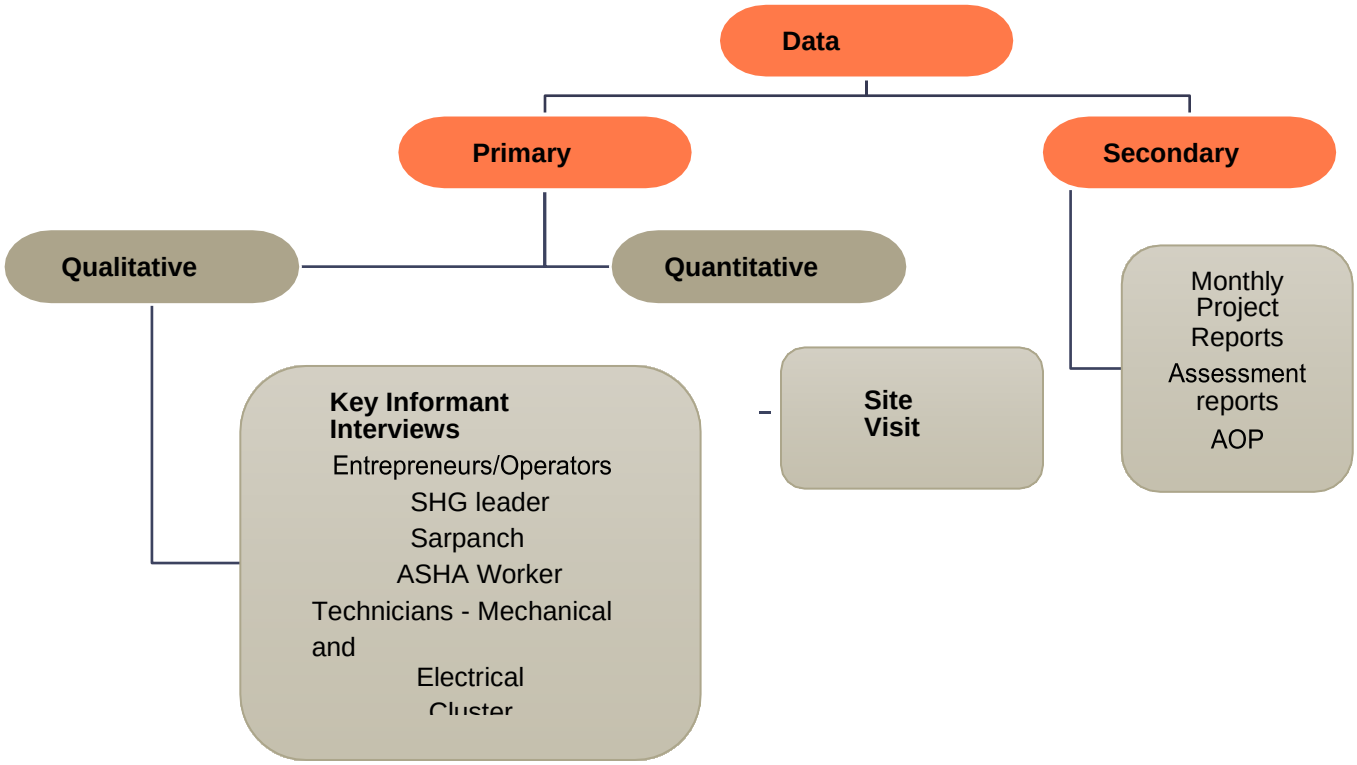
	• Reduced rate of diarrhea and stomach problems • Reduced health problems • More time for females to do other work	women in household due to ease of access to water		
IMPACT 	• **Physical Resources:** Funding, Technological infrastructure • **Human Resource:** SWNI facilitators, trainers, technicians, LNGO, community members	• Grant amount received • Grant amount utilized • No. of villages requiring installation of water stations • No. of employees engaged through various partners	• Demographic data • Agreement documents, MoU	• Availability of facilitators trainers, willingness of the community

6. METHODOLOGY ADOPTED

A 'Mixed Method Approach' is applied in the study, which ensures that factors such as processes, outputs, and outcomes are captured in the study along with the impact. The mixed-method approach will include both qualitative and quantitative data capture and analysis suitable for each stakeholder. The Quantitative tools would provide values to key indicators related to access, reliability, affordability, quality, awareness, perception, and outcomes perceived by the beneficiary stakeholders.

Quantitative analysis is used to extract the data from consumers. Qualitative methods and approaches would provide a better understanding and help build a storyline for the achievement and gaps in the program from the lens of immediate stakeholders involved in the program implementation, other than consumers. A qualitative study gives substantiated evidence for a better understanding of the processes involved in the program implementation. The mixed approach thus helps in developing a framework for gap identification enhancing inclusion and providing recommendations instead of mere calculation of outcome and impact parameters.

6.1. Data collection



Secondary data

For secondary data collection, the project monthly and annual reports, program brochures, financial statements, MoU, etc. were referred[3].

Primary data

Primary data is the key to collecting firsthand information as evidence from the beneficiaries and stakeholders on the interventions, their benefits, and the challenges, and analysis for recommendation to assess the impact created by the program. The sample has been collected based on the qualitative and quantitative approach to ensure factors both quantifiable and qualifiable.

Qualitative data

Key informant interviews: Questionnaires are designed for each stakeholder interview. All relevant questions were asked to the respondents and were captured. This was done through purposive sampling. The stakeholders are shortlisted based on purposive sampling approach.

Quantitative data

Beneficiary survey: The data was collected using structured questionnaire, including provisions of open-ended questions, enabling respondents to articulate their qualitative assessment on a few key questions. The Consumer survey was created that it would gauge the customers' insights around the water usage behavior, collection and storage practices, affordability and accessibility of safe drinking water and impact of the project.

Sampling Plan

The following sampling plan was derived based on mutual discussions and agreement with HHSIF team.

Sr.No.	Stakeholder Group	Sample Size/ Location	Sampling Technique	Method	Estimated Time
1	Beneficiaries	45	Convenience	Survey	1 hour
2	Operator	8	Convenience	KII	1 hour
3	Cluster Coordinators	3	Convenience	KII	15 mins
4	Field Executives	2	Convenience	KII	15 mins
5	Technicians	4	Convenience	KII	15 mins
6	Sarpanch	1	Purposive	KII	15 mins
7	Asha Workers	1	Purposive	KII	15 mins

[3] Also includes internal project documents such as financial audit reports, program audit reports, impact assessment reports, program SOP, etc.

7. SITE VISIT DETAILS

The sites were shortlisted through a convenience sampling approach that considers 9 different locations and diversity in the operating models of the stations.

No	iJal Station	District	Model	Date of Visit	GW Status[2]
1	Bank Colony	Warangal (Urban)	Entrepreneur	01-09-2021	Over Exploited
2	Deshaipet	Warangal (Urban)	Entrepreneur	02-09-2021	Safe
3	Katriyal	Warangal (Rural)	Local Bodies	02-09-2021	Safe
4	Vallapuram	Bhadradri	Entrepreneur	03-09-2021	Semi-critical
5	Veltoor	Sangareddy	SHG	06-09-2021	Safe
6	Ananthasagar	Sangareddy	SHG	06-09-2021	Semi-critical
7	Ferozguda	Hyderabad	Automatic	06-09-2021	NA
8	Balanagar Bus stop	Medchal	Automatic	06-09-2021	Critical
9	Vasanth Nagar Colony	Hyderabad	Automatic	06-09-2021	NA

Picture 1: SHG Operated Water ATM at Sangareddy, Hyderabad

Picture 2: Water ATM at Desaipet operated by an entrepreneur

[2] Block wise Ground Water Resources Assessment -2020

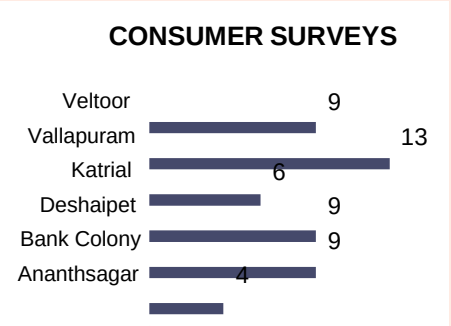
Picture 3: Regular customer paying visit to Water ATM at Katrial (operated by the local body)

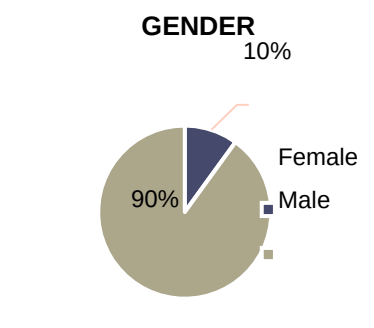
8. ANALYSIS AND FINDINGS

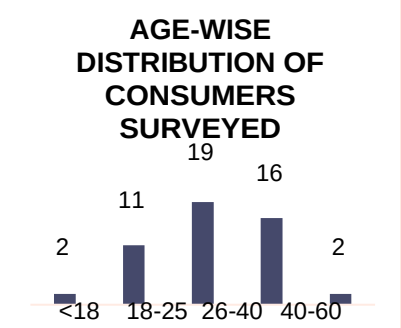
Descriptive statistic (basic features of the data including frequencies, counts, percentages), comparative analysis (before and after comparisons), and content analysis (for qualitative data to interpret and analyze unstructured textual content into manageable data) were done to analyze and interpret the data collected.

8.1. Beneficiary Analysis

50 surveys were conducted across 6 iJal stations to understand the perception of customers about access, reliability, affordability, and quality of iJal water. The respondents of the study were the customers who visited the selected iJal station during the visit. The variation in the consumers surveys across different iJal stations is attributed to availability of consumers during the time of visit. Among 50 respondents, 90% of the surveyed are male consumers.







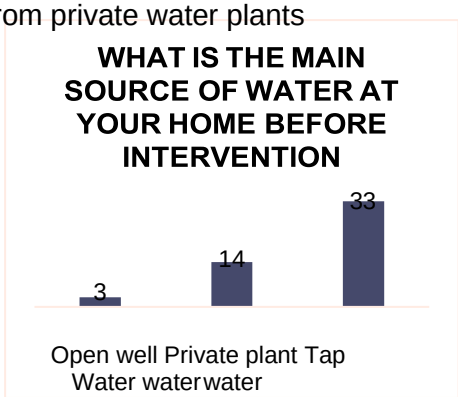
Majority of the respondents belong to 18-60 age group. Among the respondents, 64% of respondents' primary occupations constitutes Tradesmen (electrician, plumber, hairdressers, craftsmen), farmers, and small business owners.

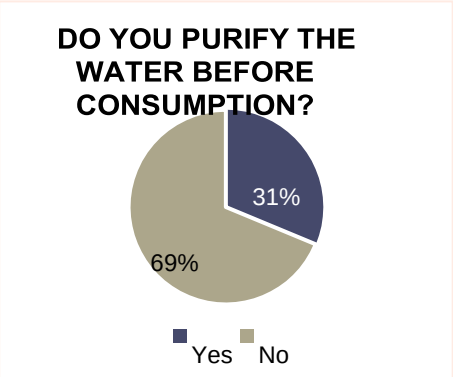
Average family size is 4. More than 78
the respondents have been living in their respective location since their birth.

Availability of Water Source

Before Intervention

Municipal tap water was the main source of drinking water for 66% of the households and 30% of respondents purchased water from private water plants before they started drinking from iJal Stations in the respective locations. Only 31% of the respondents purified water before consumption. Boiling water and using cloth were common modes of filtration reported.

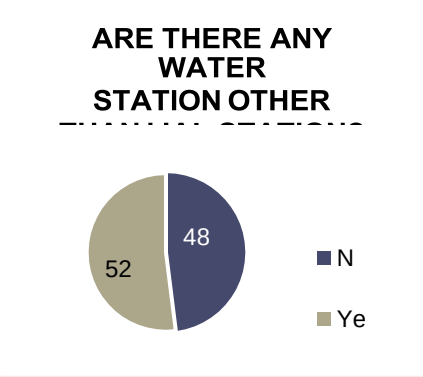


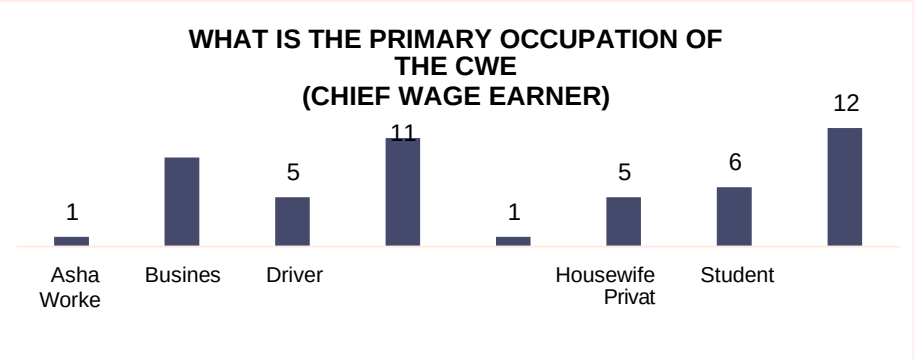


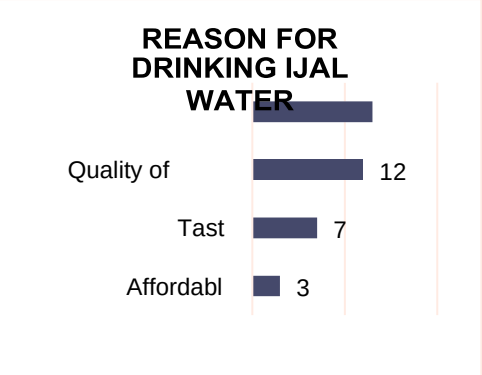
After Intervention

All the respondents have reported that they pay INR 5 for 20 liters water can.

52% of the respondents are aware of other water station other than iJal stations.





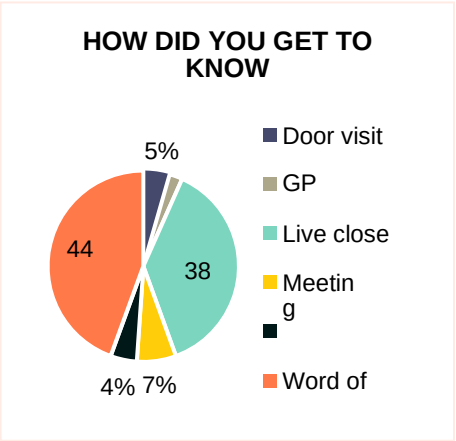


37% of the respondents' attribute **"Proximity to their house"** as a major reason drinking iJal water while 34% of the respondents' attribute **"Quality of water"** as a major reason for drinking iJal water. 20% of respondents attribute to **"Taste"**. For Urban/semi urban respondents, the major reason for drinking water from iJal stations is **"Proximity to their Homes"**. A few have mentioned that they collect water from private water plants for their office consumption. However, for rural respondents, they are dependent solely on iJal water.

Beneficiary Awareness about iJal station

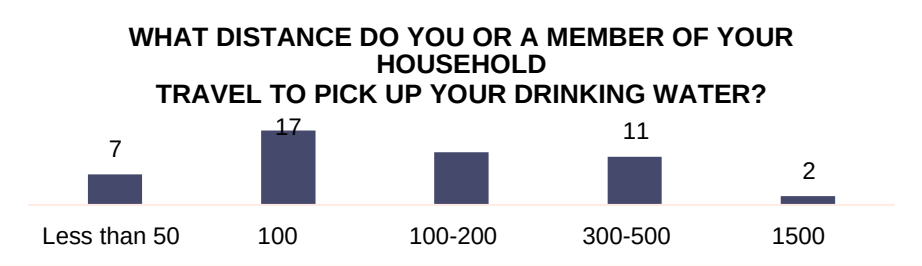
44% and 38% of the respondents indicated that they came to know about the center through **"word of mouth" and "proximity to their house".**

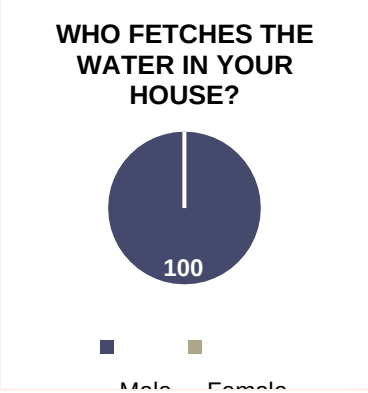
While a few (about 18%) have reported that awareness about iJal station was spread through door-to-door campaigns, ASHA workers, Gram Panchayat meetings, and SHG meetings depending on the type of iJal station operations – Entrepreneur, SHG, or local bodies.



Ease of Access and Collection of Water

100% of the respondents stay in a radius of 1.5 km of the iJal station. It is observed that Men collect water from iJal station using their 2 wheelers.

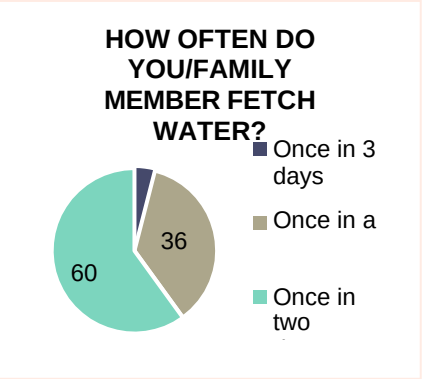




Usage of iJal Water

All the respondents reported that they have been consuming water from iJal stations since the installation. 60% of the respondents collect 1 can (Volume
- 20 liters) water **"Once in two days"** and 36% collect water **"every day"** to meet their drinking requirements alone.

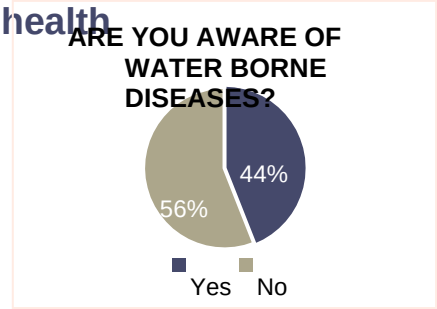
A few respondents have reported that the quantity and frequency of purchase varies with seasons and occasions.

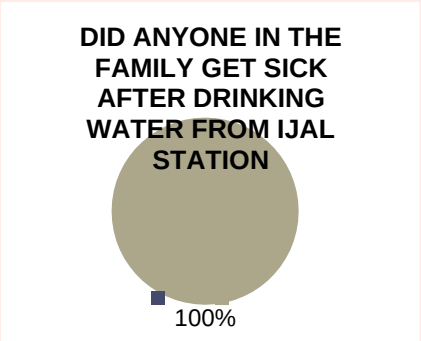


Beneficiary Awareness about iJal and its impact on health

Health (Before) Only 44% of the respondents are aware of water borne diseases. Bone related issues, body pains, Knee pains, diarrhea, yellow teeth, fluorosis, cold, and skin allergies are the most reported water borne diseases. None of the respondents reported family members being affected by water borne disease. This also indicates lack of understanding of correlation between safe water and health.

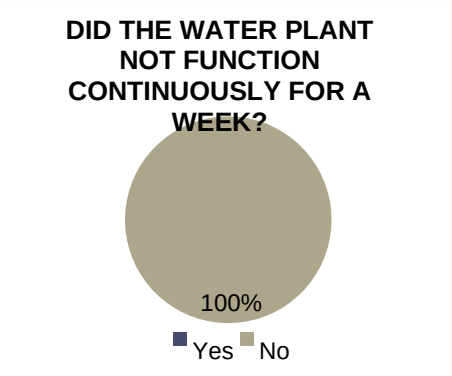
Health (After) 100% respondents reported that **"None of the family members"** got sick after drinking water from iJal station

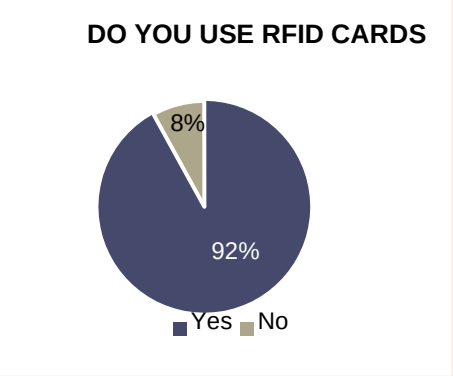




Reliability

100% respondents reported that they never noticed a down time. 92% of the respondents prefer using RFID card to purchase water. Major reason attributed to RFID card adoption is to collect water 24x7 even in the absence of operator.





Satisfaction with iJal Stations

100% respondents are willing to recommend iJal to friends and other family members.

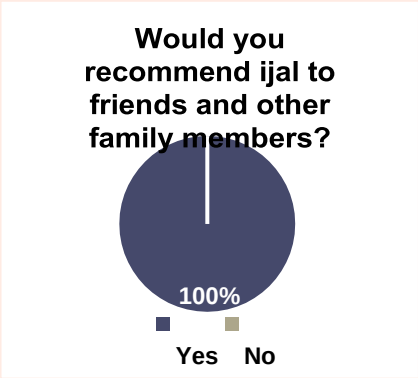
Consumers were asked to rate on parameters Quality of Water, Quality of Service, and Cleanliness on a scale of 1 (very poor) to 5 (very good)

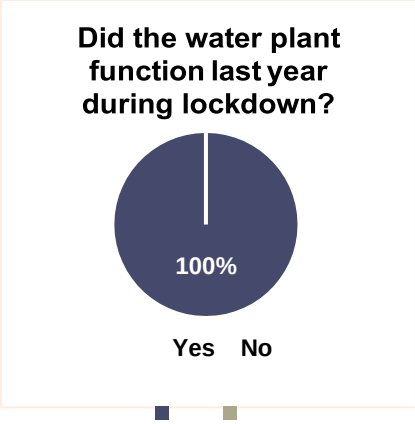
Rate the Quality of water –

4.9 **Rate Quality of Service**

– 4.9 **Rate the Cleanliness**

– 4.7





Impact of COVID on the program

During the COVID lockdown imposed during the respective location, water was available to collect from respective iJal stations. 100% of the respondents have reported that the iJal station plant was functional during lockdown and have collected water using RFID cards. Social distance was practiced during the relaxations.

8.2. Operators

8 operators were interviewed across 8 iJal stations (4 different models) to understand the operational practices and adherence to the standard operating practices benchmarked by SWNI team. All the respondents fall in the **age group between 25-45**. While the ownership of operations & station premises lies with the operators (SHGs/ local bodies/ entrepreneurs), the ownership of the technology is with SWNI.

Among the respondents, approximately 37% of respondents' have completed education up to 10th standard, whereas 37% have completed either diploma or education up to 12th standard. One of the operators is a school dropout. 1/3rd of the operators is primarily engaged in small scale entrepreneurial activities such as tailoring.

Having asked about the decision-making factor for choosing iJal over other water supply stations/ agencies, majority of the respondents either highlight the **superior quality of machinery** and practices or recommendation from friends/ family.

Locations

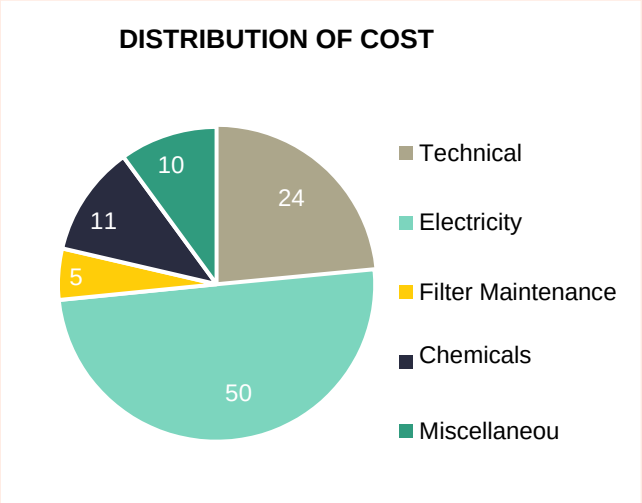
Bank Colony	Dhesaipet	Katrial	Vallapuram	Veltoor	Ananthsagar	Balnagar water Station	Ferozguda

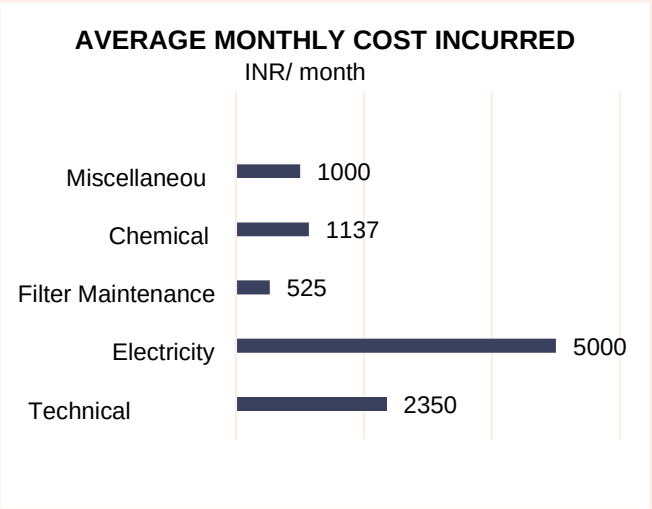
Operational Models

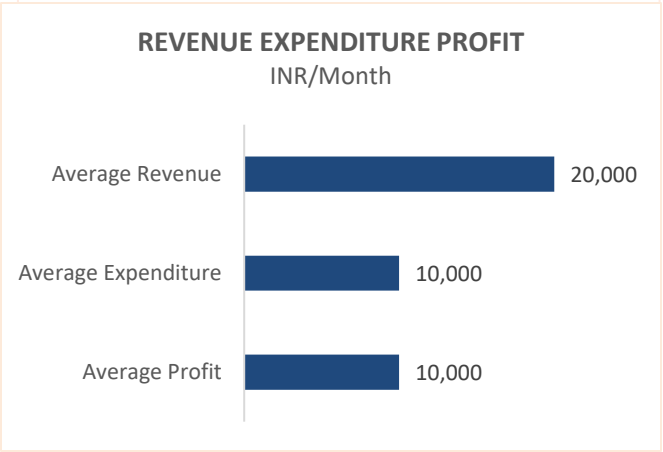
Model	Strengths	Challenges
Entrepreneur	● Clear operating structure ● Clear profit motive and drive for scale- up ● Control of the value chain by single entity	● Hard to balance profit pressure and cost recovery with affordability ● Higher competition with other private entrepreneurs providing safe drinking water at lower prices with lack of enforcement of regulations on water quality standards
SHG	● Familiarity with the community helps in better consumer awareness ● Incremental impact with direct conversion of revenue/ profit into savings and microfinance support for the SHG	● Shift in focus of community could impact project sustainability ● Low volume/ scale could discourage the SHGs may also result in low promptness or lack of preparedness during contingency ● Sometimes women are unable to lift the 20L cans, thus requiring engagement of a male operator, adding to the OPEX

Local Body/ Committee	● Potential for collaboration with government bodies/ local authorities which can open-up avenues for resource mobilization and scale-up ● Endorsement via local authorities will also create enhanced adoption	● Dependence on community interest and participation for continuity

Revenue, Expenditure, Profit







Approximately 120 cans dispensed per day

Charges for customers - INR 5/ can

Average profit INR 10,000/ month

The average expenditure of any iJal water station accounts to INR 10,000 / month. The expenditure is exclusive of the operational expenditure incurred for remote monitoring and technical supervision provided that is supported through HHSIF grant, accounting to approximately INR 84,126 / year/ station. The electricity supply takes up majority of the expense up to 50%, followed by the technical support services. Revenue earned through the station is of INR 20,000 / month. While the ATMs are largely dependent on electricity supply for water purification, the system has integrated storage capacity of approximately 5000 litres (equivalent to 250 cans) which allows it to meet the local water demand for up to 2days without power

supply. An inverter is installed at all locations to provide electricity for water dispensing during power cut. The monthly maintenance and servicing expense is borne by the entrepreneurs/SHGs/ Village Committees (based on the model).

Challenges

The interactions suggest three key challenges in the operations:

- Dependence on HHSIF's CSR support to take care of the RMS and technical support expenditure
- Low pricing for the cans reduces the revenue and overall profit margins for the entrepreneurs
- Increasing the sales is a challenge, especially in the group enterprise models (SHG/ village committee)
- High electric charges given the enterprise model
- In absence of HHSIF grant support, the model is not sustainable in terms of recovering the OPEX as well as supporting the minimum income for the operators (water aunties/ SHG members/ individual entrepreneurs)

Support during COVID-19

Amidst the growing number of Covid-19 cases in Telangana and Maharashtra, all stations continued to run sustainably, with 82% of all payment transactions made digital – reflecting significant behavioral change among community and strong drive by the team iJal.

The operators were provided with COVID Kits including gloves, masks, sanitizers, and towels. SWNI also resolved the technical queries raised by the operators via video calls and ensured that the stations were operational during COVID-19. The operators were provided training on COVID-19 protocol. The field technicians were also provided with passes to facilitate the services.

Sponsor recognition 100% sponsor recognition amongst the operators engaged in the program.

Water Aunties: Impact stories of the women entrepreneurs operating the iJal stations

My name is Sinduja. I am running iJal water plant in Bank Colony for last 5 years. We are known for providing quality water to our customers. We have RFID card system that allows our customers to access water 24 hours a day at low cost through our ATW machine. We have also started accepting phone pay or Google pay for recharging the cards. During COVID outbreak, we wore masks and provided soap and sanitizer while maintaining social distancing. Also, we have can washer facility which is not available in any other plant. We use reject water for gardening and domestic purposes. The income from this water plant is very helpful to run our family. We never stopped our plant. Technicians & SWN team always helped to prevent such a situation. We want to continue this affiliation with SWN further and thank organizations for the timely support provided during the last 5 years.

Smt. Sindhuja

Bank Colony iJal Station

My name is K. Uma, for the last six years, we are running iJal water plant at Deshaipet. Since the launch, we never stopped our plant even for one day. If any problem arises, as soon as we call technician, they come and rectify the issue. Even during Covid time, we didn't stop our plant. We do recharges for customers through digital payments. We also create awareness within the customers for water quality. Twice in the year, we send our water samples to lab for water quality testing. Reject water is being used for domestic purposes by us as well as colony residents. We also get income through this iJal station which is very helpful to run our family and has been a constant source during the COVID outbreak. I whole heartedly thank our donors for this support!

Smt. Uma

Desaipet iJal Station

8.3. Cluster Coordinators

The cluster coordinators have been engaged in the project through Modern Architects for Rural India (MARI) and Clean Water and Energy Trust (CWET). The key responsibilities of the cluster coordinators have been further bifurcated based on the organization they are associated with. These are as listed below –

CWET (Technical+Field Support)	MARI (Field Support)
• Training and engagement of technicians Provision of preventive maintenance services (PMS) on a monthly basis • Installation of water stations once the site and models are finalized • Collection of fees from the operators/ owners for the technical support services • Awareness about safe drinking water practices Site selection • Model selection • Acquiring required approvals, NOCs, etc. Branding and stakeholder guidance Training	• Awareness about safe drinking water practices • Site selection Model selection • Acquiring required approvals, NOCs, etc. Branding and stakeholder guidance Training and orientation

As per the proposed KII plan, 3 cluster coordinators were interviewed from MARI and CWET. Technology, training, and technical support receives high appreciation by the cluster coordinators with a score of 5/5.

Success Factors	Challenges
• Service and water quality	• Scale-up of the water station network in neighboring clusters
• Community acceptance and support from local leadership/ government officials	• Low adoption of the prepaid cards

Program Ratings given by Cluster Coordinators	
Technology	★★★★★
Training	★★★★★
Technical Support by SWNI	★★★★★

8.4. Field Executives

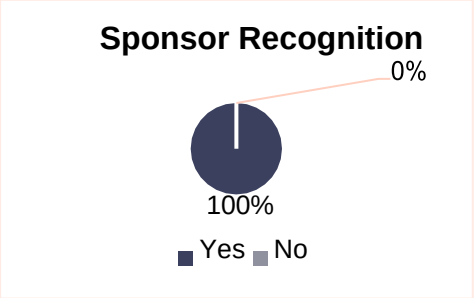
The study involved key informant interviews for two field executives from different locations. The training as well as technical support by Safe Water Network receives a high appreciation by the field executives with a score of 5/5.

Success Factors	Challenges
• Remote monitoring system	• Low visibility
• Water quality	• Competition with private plants
• 24x7 access to water	• Lack of willingness to pay

Program Ratings given by ASHA Worker	
Training	★★★★★
Technical Support by SWNI	★★★★★

8.5. Technicians

4 technicians were interviewed who are associated with the Clean Water and Energy Trust. All the respondents exhibit sound technical know-how and have supporting educational qualifications (ITI diploma/ engineering degree). We observe 100% donor recognition amongst the technicians and all have also undergone training provided by Safe Water Network. All the technicians rate the services provided and overall program effectiveness the highest (i.e. 5/5).



Success Factors	Challenges
● Remote Monitoring System	● Power Outages
● 3 Dozing Pumps and UV Sensors	● Battery Discharge
● High Pressure Pump	● IC Changes
● Cleanliness and Water Quality	● Pump Repairs

Program Ratings given by ASHA Worker	
Services by SWNI	★★★★★
Overall Effectiveness	★★★★★

8.6. ASHA Worker

An interaction with one of the ASHA Workers from the community was also conducted to understand the relevance and impact of the intervention. Her key role is to provide awareness around clean drinking water. Urine infection, fluorosis and bone issues were highlighted as some of the key issues arising out of lack of access to safe drinking water which have now been addressed through the intervention. Preconceived notions around drinking mineral water and its ill effects on health is one of the key challenges in adoption.

Program Ratings given by ASHA Worker	
Quality of Water	★★★★★
Overall Effectiveness	★★★★★

8.7. Sarpanch

One Sarpanch was interviewed from the various gram panchayats where the project is operational. The villagers were dependent on the municipal water supply before the intervention. With the newly iJal water station, the community has now 24x7 access to safe drinking water.

Success Factors	Challenges
● High donor recognition amongst the community and credibility	● Willingness of community to pay
● Good taste of water	● Low adoption
● Ease of installation	

Program Ratings given by Sarpanch	
Technology	★★★★★
Technical Support	★★★★★
Overall Effectiveness	★★★★★

8.8. CSR Program Team

One of the Honeywell CSR project team members was interviewed to have an in-depth understanding of the experience, challenges, and the success factors of the program.

- The project **aligns well with Honeywell's CSR policy** and thorough due diligence was conducted while onboarding the implementing agency.
- **Conceived as a multi-year project**, the iJal installations were initially conducted in 2 districts in Telangana, further **expanding to 16 districts** in Maharashtra, Telangana and Karnataka over the course of time.
- The project team worked towards **innovating the model and concept to achieve higher impact** throughout the project cycle. Some of the project modifications include –
    - Mobilizing SHGs to own and operate the water stations
    - Introducing smart access through RFID cards
    - Automatic water stations
    - Encouraging women entrepreneurship for the enterprise model to add an alternate source of income for households
- The CSR project team highlighted the **robust model and participatory nature of the project** as the key strengths. Site selection, sustaining the uptake and acquiring relevant permission were shared as the key learnings or challenges from the project.

- The CSR project team ensured **regular interactions** with the implementing partners and adopted a monthly reporting mechanism for financial utilization and progress mapping.
- To avoid any **disruptions during the COVID-19**, the project adapted to include –
    - **Partnership with local government** for social and behavioral change communication for COVID- 19 and WASH
    - **Distribution of COVID-19 kits** and capacity building of local teams regarding adherence to COVID protocol
    - Installation of **foot operated handwash stations**

Success Factors	Challenges
● Advanced and highly effective technology	● Site selection
● Operating model that allows ownership to the community	● Acquiring permissions
● Continuous training and capacity building integrated in the system which allows easy and robust monitoring	● Ensuring sustained uptake of the services

Program Ratings given by Honeywell Team	
Progress Reporting	★★★★★
Financial Utilisation	★★★★★
Implementation	★★★★★
Overall Effectiveness	★★★★★

9. BENCHMARKING

To understand iJal's impact creation and effectiveness, we conducted a comparative analysis of the project with respect to other interventions by the safe water ecosystem peers. To shortlist, we looked at diversity in economic and operating models incorporated by these organizations.

Comparative analysis of various Safe Water Ecosystem Models[4]:

No.	Benchmarking parameters	SWNI (iJal)	Balavikasa	Rite Water Solutions	Sarvajal	Spring Health
1	**Participatory Program Model**	Community Managed (Partially)	Community Managed	PPP	Community Managed	Private
2	**Ownership transfer to community**	Technology ownership with SWNI	Community	Government for 3-5 years, then transfer to community	Community / Local entrepreneurs lease the plant	Ownership with Spring Health
3	**Technical supervision & RMS**	YES (Increases OPEX, requires higher number of customers at each station)	RMS not integrated	RMS not integrated	RMS not integrated	RMS not integrated
4	**Smart Card**	YES (Requires initial capacity building)	Digital/ in-cash payments	Digital/ in-cash payments	YES (Smart card/ flexible top-up)	Digital/ in-cash payments
5	**Affordability**	INR 4/ 20L	INR 2/ 20L	**Free**	INR 6/ 20L	INR 8/ 20L
6	**Door-to-door Service**	Door-to-door (Adds transportation cost to the price of water)	Self Pickup	Door-to-door	Door-to-door	Door-to-door
7	**Average OPEX (INR/month)**	16,500	8,000	11,000	NA	1,150

[4] Safe Water Network, August 2014. Community Safe Water Solutions: India Sector Review. https://www.safewaternetwork.org/sites/default/files/SWN_India%20Sector%20Review_Sept%202014_Full_Report.pdf

Note: ***The financial details mentioned for benchmarking are for previous project timelines to make the information comparable and might differ for FY20- 21.***

Models:

Three types of models are being employed by the reviewed organizations which include **community managed solutions, PPP model and private model**. The iJal stations are partially community managed solutions, wherein, the local community has the majority stake in the financing, installing, and operating the system. Capital funding is generally provided by NGO/ philanthropic organisations, with certain contribution from communityto develop a sense of ownership amongst them.

- This **participatory approach** of the community managed solution by iJal **encourages both local community ownership and local entrepreneur ownership** with the Gram Panchayat's endorsement.
- However, providing incentives for **ongoing plant management, building local capacity, creating, and maintaining community interest and participation**, and **identifying and training technical service** support in the local community is **challenging**.
- While the other community managed solutions such as Balvikasa and Sarvajal provide community ownership of the kiosks, SWNI model provides only partial ownership to the community regarding the operations, whereas the technology and equipment is owned by SWNI.

Operations:

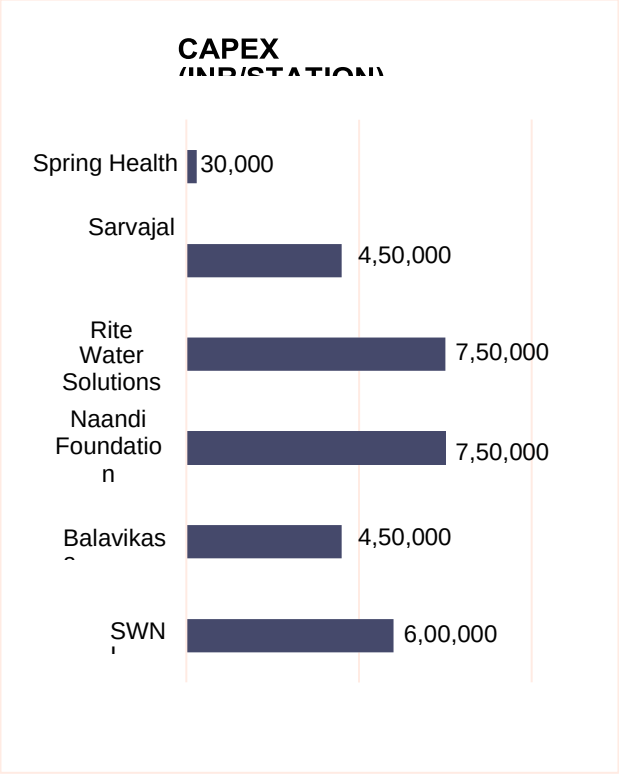
Operational sustainability requires **effective governance and a system for regular maintenance and repair**. Key players use a variety of governance and ownership structures to incorporate stakeholders in this process. In addition, majority of the ecosystem partners face the **challenge of balancing cost and type of technology** needed to address specific contaminants, as certain technologies have high-cost implications, and power and maintenance requirements.

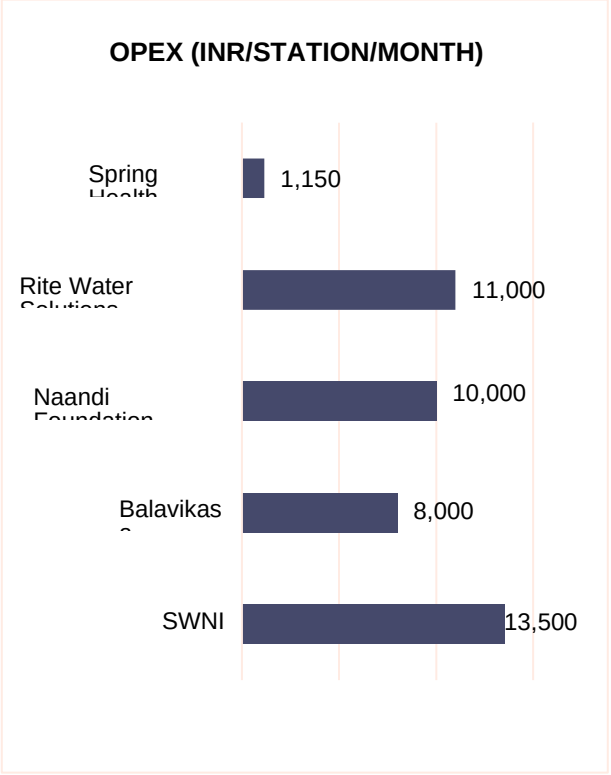
- **iJAL offers three modes of operations** based on the ownership, namely –
    - Individual entrepreneur
    - Community/ village committees
    - SHGs
- While the **operators** look after the day-to-day activities, **SWNI supervises** the maintenance, service support, quality check and monitoring with the support from its **technical partners** (MARI and CWET), with a **minimum fee that is borne by the operator/ entrepreneur**. The iJal model overcomes the challenges of faced by other ecosystem peers.

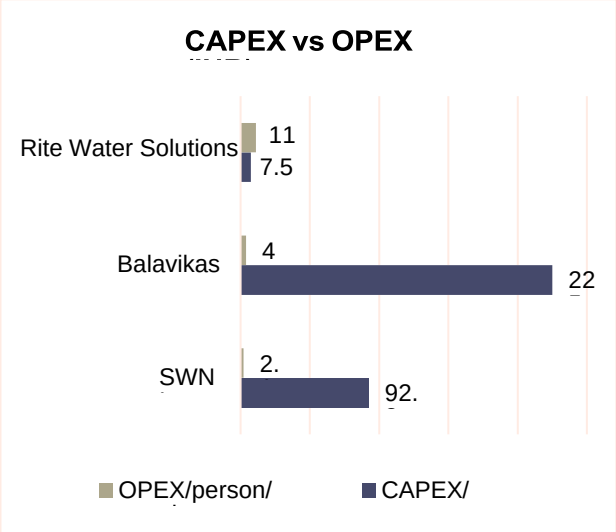
Financial Viability:

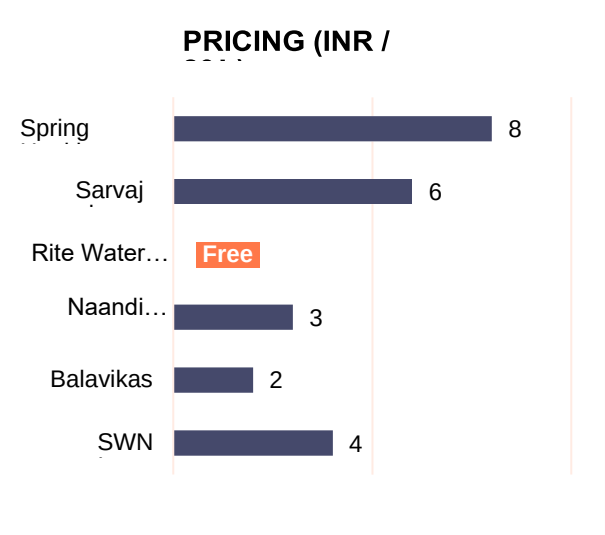
The overall safe water ecosystem demonstrates a **low recovery for the CAPEX**. It is important to understand that the CAPEX is largely **dependent** on the **technology adopted for purification**, which is selected based on the context (environmental, social and geospatial).

- Average project cost for iJal is **INR 24,82,315**, whereas that of similar stations at the same time was **approximately INR 4,50,000**
- While the model and advanced technology ensure delivery as per the standards along with convenience for the beneficiaries, it incurs approximately 5 times higher expenditure as compared to other peers in the space
- However, the **operating cost for each station is the highest amongst** all, which demands for aggressive customer activation and ensures a sustained pool of customers to run a station.
- Although the **CAPEX and OPEX are high, the water is priced at a lower rate** with respect to few of the other partners (PPP and private), given the community managed model.
- Thus, **iJal is more suitable for a cluster of habitations within a walkable distance (1-2 kms)** to ensure the required **demand** for operational viability.









Service Delivery:

We analyzed the modes of distribution and payment to understand the e**ase of accessibility as well as delivery of the service**. iJal is one of the very few in the ecosystem which **offers self-pickup as well as door-to-door delivery** for water. It has also adopted **smart access with the help of RFID cards** to allow prepayment. These factors not only bring-in **convenience** for the customers but can also be leveraged as **value-added services to push for a higher price point** for enhancing the profit margins.

10. SWOT ANALYSIS

A SWOT analysis is done to understand the program's strengths, weaknesses, opportunities, and threats. It was conducted largely from the responses received from the program team and other implementation-level stakeholders, at the same time considering the beneficiary feedback.

Strengths	Weakness
• **Reliability** - Timely and reliable service through local teams and preventive maintenance through remote monitoring systems (RMS) • **Affordability** - Clean and safe drinking water made available at INR 5 per 20 liters. • **Access** - 24x7 availability of clean drinking water • Strong brand value and recognition amongst various stakeholders • **Financial opportunity** to local operators, entrepreneurs, and SHGs • Community model brings in more transparency and ensures vigilance • **Policies to regulate** quality, reliability, affordability, sustainability, and inclusion • High quality **training and technical support** through SWNI	• Lacks **activity-wise mapping and evaluation** of project performance in the MoU • **49% households didn't adopt** the scheme at cluster-level • **INR 2,00,000 annual operational cost for each station** which challenges self-sustainability of the model • **Ambiguity and inconsistency around categorization of budget heads and descriptors** in the financial reports shared by the nonprofit • **37% of the grant utilized for admin expenses**, including **22% for supporting the manpower** • Project expenditure (approximately INR 24,00,000/ unit) approximately 5 times than other peers in the ecosystem • **High operational cost and low margins** for maintenance and repairs challenging the self-sustainability of the water stations • **Lack of understanding** of correlation between safe water and health amongst consumers which limits the adoption
Opportunities	**Threats**
• **Explore convergence** with Government initiatives/ schemes/ local government & promote community ownership to ensure program sustainability • **Customer activation programs** to increase the penetration and consumption • **Improving OPEX recovery** to ensure sustained revenue for the units to also maintain the standards set	• **Low pricing** likely to affect financial sustainability of entrepreneurs • Frequency of **maintenance for older iJal stations** likely to increase the cost of maintenance • **Groundwater depletion and wastage of residual water was observed** • **Lack of service infrastructure** through the program poses threat to longevity

11. CONCLUSION

The study has attempted to assess the impact of the Honeywell iJal Program through various analytical approaches. It has observed the various factors that have helped / hindered the program to achieve the desired outcomes.

- The iJal stations have **addressed the need of access to safe drinking water for the low-income communities**. Capacity building of local operators, detailed SoPs, stringent monitoring, and dedicated field service for maintenance have not only helped in ensuring the quality and safety, but it has also gained the confidence of the community and established a strong recognition for the brand amongst users and various other key stakeholders. Despite the 100% brand recall and strong relevance of the intervention, the iJal stations have a **low uptake in the community** with an observed **average adoption rate of 51% at a cluster-level**. Presence of other water purification systems in the areas at competitive prices can be a threat to the sustainability of the iJal water stations.
- The spirit and belief in the system by various stakeholders also translated in **overcoming the challenges from the recent pandemic,** wherein, the team promptly adapted by introducing capacity building for COVID-19 protocol, distribution of COVID-19 safety kits for the operators and virtual (video call based) technical support, to ensure that the stations remained operational and safe to use. The integrated remote monitoring system further reinforced the resilience of the stations during such critical times.
- While the project demonstrates **strong social relevance and advanced technology relevant to the needs**, it has **scope for improvement in terms of enhancing the economic viability**. Analysis of current operational models suggest that there is low scope for improving the profit for the operators. This not only restricts the scale-up, but also rests the expenditure for regular maintenance, and technical service on the operator. The project is dependent on HSSIF's CSR support for its operational expenditure and lacks delineation of an integrated exit strategy to ensure self-sustainability for the project.
- No monitoring of the ground water level is being conducted to map the resource availability in the long term, whereas, 4 out of 9 water stations are located in regions with critical or over exploited ground water status. This poses a **threat to the model from water depletion and scarcity** in forthcoming years.

12. RECOMMENDATIONS

Any community level safe water system is sustainable if the costs for operation, maintenance, and administration are covered at the local level with limited but feasible external support. The system should also deliver an appropriate level of benefits, i.e., quality, quantity, convenience, and reliability to consumers throughout its design life**. A dual approach of bringing down the OPEX while activating the demand would raise the sustainability for the project.** In addition, the Program selection framework to be strengthened to compare project operating models at the initiation of the project with clear needs establishment along with alignment to company's CSR vision.

In the light of the key challenges that we observed, the following are recommended:

Themes	Challenges	Recommendations
Adoption and Scale-up	• **49% households didn't adopt the scheme** at cluster-level • **Competing prices** and convenient supply for drinking water by **private players** in the local ecosystem	**DEMAND ACTIVATION** • Recognizing operators/entrepreneurs through **financial or service incentives** for increased sales. • Additionally, **increasing convenience through distribution networks** has the potential to improve economic performance and enhance access. • Most customers use iJal water solely for direct consumption. **Consumption can be increased through indirect consumption** through extended use of safe water for cooking and washing vegetables. • Frequent interventions/campaigns needed to **sustain demand to address health benefits, safety parameters** from safe drinking water.
Operations and Financial Viability	• **INR 2,00,000 annual operational cost** for each station which challenges self-sustainability of the model • **INR 10,000 profit margin** for the operators/ owners, which will reduce	**CONVERGENCE WITH GOVERNMENT INITIATIVES** • Establishment of the water stations in close **coordination with the local authorities to improve the visibility** and tap into a larger customer base with the government endorsements. • Integrating the water stations as a part of **rural drinking water scheme or rural planning scheme** to facilitate year-round operations and vigilance. This will also reduce the duplication of effort by both the agencies and would reduce the chances of customer dropout (on facilitation of piped water connection by Government). • Identifying resonance of various project components such as skill building, social and behavioral change communication, COVID- safety, which can be **supported under the existing umbrella of schemes of the local**

	further in absence of HHSIF's support for the operations and maintenance	**governments** to bring down fund requirement for CAPEX as well as OPEX. **OPTIMIZING OPERATIONAL EXPENSES** ● Electricity bills form a substantial operational expense for the stations ranging between INR4000-8000 / month. **Introducing solar powered stations** (partially/ fully) could help in improving the profit margins for the operators ● The operators should **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
Resources Sustainability	● 4 out of the 9 sites visited **showcase over-exploited/ critical ground water status, highlighting the water scarcity** and ground water depletion ● **40% to 50% water is wasted and is unused** after the filtration is done	**INSTALLATION OF RAINWATER HARVESTING SYSTEMS and SHALLOW WELLS** ● The majority of water stations **rely on groundwater** for source water, and, in a few cases, these face the threat of depletion of resources by large consumers of water, such as agriculture and industry. ● **Rainwater harvesting and shallow open wells** can be employed by some key players to recharge the source water.

OVERALL RECOMMENDATIONS

SELF-SUSTAINABILITY AND EXIT SRATEGY

Explore convergence with Government initiatives/ schemes/ local government & promote community ownership to ensure program sustainability

The project mandate **needs to integrate clear guidelines on self- sustainability and exit strategies for HHSIF** to ensure the continuity of the water stations in its absence.

13. ANNEXURE

Questionnaire for Customer Survey

Sr. No.	Questions
Section-1 Household Details	
1	Name of the head of the family
2	Age
3	Gender
4	Location
5	Total number of family members
6	No of years the family is living in this location
7	Living
Section-2 Water Treatment (Before)	
8	What is the primary occupation of the CWE (Chief Wage Earner)
9	Do you purify the water before consumption?
10	If yes, how do you purify water before consumption?
Section-3 Impact on Health (Before)	
11	Are you aware of Water Borne diseases?
12	If yes, can you name a few diseases
13	Is anyone in the family affected by water borne disease?
14	If yes, name of the disease?
15	No of people in the family affected by water borne disease in the past?
16	How many times is the family affected by water borne disease in the past?
Section-4 Access and Affordability	
17	How did you get to know about this center
18	How many years have you been using fetching water from the Ijal Station
19	Are there any water station other than Ijal station? If yes, why prefer this
20	Reason for drinking
21	Are you paying Rs 5 per for 20 litres?
22	What distance do you or a member of your household travel to pick up your drinking water?
23	Who fetches the water in your house?
24	How often do you/family member fetch water?
25	Number of cans
Section-5 Impact on Health (After)	
26	Did anyone in the family get sick after drinking water from iJal Station
Section-6 Quality	
27	Did the water plant not function continuously for a week?
28	How would you rate the quality of water

29	How would you rate quality of service
30	How would you rate the cleanliness
31	What do you think is good quality water?
32	Would you recommend IJal to friends and other family members?
33	Do you use RFID cards
34	Is it convenient? Or cash
35	Comments (if any)
SECTION-7 STATUS DURING COVID	
36	Did the water plant function last year during lockdown?
37	If no, for how many month
38	Feedback
39	Challenges

Interview Guide for Key Informants

SR. NO.	QUESTIONS FOR INTERACTION WITH SARPANCH
1	Name
2	Water source before iJal
3	Why did you choose iJal Water
4	Requirements from SWNI
5	Did the water plant not function for a duration of 1 week
6	Rate the technology on scale of 5
7	Rate the support provide by SWNI
8	Do you know who sponsored the Water station

SR. NO.	QUESTIONS FOR INTERACTION WITH TECHNICIANS
1	Location
2	Name
3	Education Qualification
4	Experience
5	Organization
6	Advantages
7	Challenges
8	Are you trained by SWNI
9	How would you rate the services provided by SWNI
10	Covid support
11	Does the technician recognize the sponsor

SR. NO.	QUESTIONS FOR INTERACTION WITH OPERATORS

1	Location
2	Model
3	Year of Establishment
4	Name
5	Age
6	Education
7	Occupation
8	Years of Experience
9	Why did you choose iJal station
10	Requirement
11	Time to setup
12	Site
13	Did SWNI charge any amount
14	Training
15	Mobile App
16	Tablet
17	Tablet usage
18	Guide
19	Cost per can
20	No of can dispensed in a month
21	Revenue
22	Technical Support cost
23	Electricity (Rs)
24	Cost to change filters
25	Chemicals
26	Misc
27	Salay
28	Comments on profit
29	Frequency of visit by technical team
30	Frequency of visit by MARI team
31	Team support
32	Technology
33	Training
34	Challenges
35	Area of Improvement
36	Covid support
37	Did iJal Station close during covid
38	Feedback
39	Does the operator recognize the sponsor

SR. NO.	QUESTIONS FOR INTERACTION WITH CLUSTER CO-ORDINATORS

1	Name
2	Age
3	Education
4	Experience
5	Grass root Organization
6	Key Responsibilities
7	Responsible for how many water stations
8	Was the training provided
9	Success Factors
10	Challenges
11	Status during COVID
12	Success story
13	Rate technology
14	Rate support provided by SWNI
15	Recognizes the sponsor
16	COVID support

SR. NO.	QUESTIONS FOR INTERACTION WITH FIELD EXECUTIVES
1	Location
2	Name
3	Age
4	Education
5	Experience
6	Organization Association
7	Roles
8	Training provided by SWNI
9	Rate the training on a scale of 5
10	Success Factors
11	Challenges
12	Rate the technical support provided by SWNI
13	Does the field executive recognize the sponsor?

SR. NO.	QUESTIONS FOR INTERACTION WITH ASHA WORKER
1	Name
2	Age
3	Education
4	Responsibility
5	Can you name some Water related issue that are prevalent in the community you are operation

SR. NO.	QUESTIONS FOR INTERACTION WITH CSR PROGRAM TEAM
1	Can you share the vision for proposing this program and how had you ideated this?
2	How was the short-term and long-term impact envisaged for the program?
3	What was the monitoring mechanism introduced?
4	How often did you interact with SWNI team to understand the program challenges?
5	Have there been any modifications or course correction in the program mandate over the last few years?
6	What are your suggestions for overall self-sustainability of the project?
7	Do you think that the scope of the project can be widened?
8	How did the project focus change in the last 1 year during COVID-19?
9	Rate the following program parameters on scale of 1 to 5: ● Program implementation ● Reporting by implementing partner ● Financial utilisation ● Effectiveness
10	What are the major challenges and success factors that you are

List of Documents Referred

- Honeywell Access Launch – Station Mapping Database
- Project MoU
- Project report Oct2020-Apr2021
- Fund utilization reports for Grant VIII
- Agreements