CSR Impact Assessment Report

Clean Drinking Water, WaSH & Water Conservation program

Prepared For

HDB FINANCIAL SERVICES
REIMAGINING OPPORTUNITIES

Prepared By

SoulAce
Path to Sustainability

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CONTENT

ABBREVIATIONS

PWS	Piped Water Supply
FRP	Fouride Removal Plant
INR	Indian Rupee
VWC	Village Water Committees
R.O PLANT	Reverse Osmosis Plant

LIST OF CHARTS

EXECUTIVE SUMMARY

Background

Project activities

Swajal 1

- Village identification, water testing, mapping safe and unsafe sources, developing health database.
- Developing awareness and capacity development.
- Community mobilisation and sensitisation.
- Promotion and use of safe drinking water sources.
- Install community RO/UV water plans in 5 selected villages
- Construction of community water supply tank in 3 selected villages.
- Repair water and sanitary structures.
- Form and institutionalise water user committees at the village level.
- Impart training on record keeping and managing plant maintenance.

Swajal 2

- Capacity building with the existing Village Water User Committees in the existing 5 villages where RO, Flouride removal plant, and pipe water supply are operational.
- Distribution of water cans in the existing 4 villages with RO and fluoride removal plants being installed.
- Construction of 5 individual farm ponds.
- Desilting community ponds.
- Formation and strengthening of new water user committees for PWS.
- Construction of community PWS.

Project year
FY 2020 – 2021, 2021-2022

Beneficiaries
5000+ Rural residents

NGO Partner
Hartika

Project Location
Shivpuri District, Madhya Pradesh

SDG Goals

Research Methodology

Application of Quantitative Techniques

Quantitative data were collected through closed-ended ended interviews using a questionnaire, and 350 participants participated in the study.

Application of Qualitative Techniques

Qualitative data has been collected using open-ended interviews with key stakeholders of the project.

Research Design

Geography Covered (States)
Madhya Pradesh

Direct Beneficiaries Covered
350 beneficiaries

Sample Technique
Purposive sampling and Simple Random Sampling

Stakeholders
Villagers, School teachers, Anganwadi workers, Women and Children

Major Findings:

50%
of the respondents reported that all hand pumps were in working condition, and 26.7% mentioned that some were working.

90.3%
of the respondents reported getting water adequately throughout the year.

54.3%
of the respondents were moderately satisfied, and 37.7% reported good water quality.

71.7%
of the respondents reported no problems, in terms of waterborne diseases.

82.9%
of respondents mentioning women not having enough time for rest and household work and 22% reporting girls' school attendance is affected.

Key Impact:

Improved Access to Safe Drinking Water:

The installation of fluoride filters, RO plants, and water tanks with pipeline connections has significantly improved access to safe drinking water in the respective villages.

90.3%

of the respondents reported adequate water availability throughout the year, and 50% of them stated that all hand pumps were in working condition.

Time and Effort Savings:

79% of the respondents reported obtaining water within 10 to 20 minutes, which was previously 1 to 2 hours leading to increased productivity and reduced burden on individuals, particularly women, and girls.

Increased Gender Equality:

The project has contributed to promoting gender equality by reducing the burden on women and girls who were traditionally responsible for water collection.

CHAPTER 1: INTRODUCTION

The Swajal project, implemented by HDB Financial Services in collaboration with Hartika, aims to provide clean drinking water access through fluoride mitigation in the Shivpuri District, Madhya Pradesh. The project consists of two phases: Swajal-1 and Swajal-2. In Swajal-1, efforts were focused on creating a roadmap for fluoride mitigation strategies and providing clean drinking water access.

Swajal-1 is the first phase of the Swajal Project, which started in the year 2020 with assistance from HDB Financial Services. In this phase, eight villages were identified out of the 24 affected villages in the Karera Block for fluoride mitigation projects. The main objective of the project was to create a roadmap for fluoride mitigation strategies and develop an action plan for providing clean drinking water access. The project employed various strategies to achieve its objectives. One of the key activities was community sensitization, where awareness meetings were conducted to educate the villagers about the Swajal project and raise awareness about the impact of fluoride contamination on their health.

In terms of infrastructure development, Swajal-1 involved the installation of four Fluoride Removal Plants (FRP) and one Reverse Osmosis (R.O.) Plant in the target villages. The FRPs are designed to reduce the concentration of fluoride in drinking water, ensuring safer water for consumption. The R.O. Plant utilizes reverse osmosis technology to purify water and remove contaminants. Additionally, five pipe water supply plants were constructed in the first phase of the project. These plants were installed in Mugawali, Saphonjhora, Kumarpura, Dhamna, and Motipura villages. The project also focused on the formation and strengthening of Village Water Committees (VWCs) in the target villages. The VWCs play a crucial role in the operation and maintenance of the installed water infrastructure, ensuring its long-term sustainability. Swajal 1 served as a foundation for the subsequent phase, Swajal-2, which aimed to sustain the achievements made in Swajal-1 and further enhance water security through water conservation interventions.

Swajal 2 started in the year 2021 which aims to sustain the achievements made in Swajal-1 and ensure water supply security. The main objective is to implement interventions in water conservation to increase water levels, both at the surface and ground levels, as an effective strategy for fluoride mitigation.

About NGO Partner:

Hartika is a non-governmental voluntary organization set up in the year 1994. As a non - government organization, it has been working on issues affecting the rural poor. It has made interventions in natural resources management and provision of other infrastructure facilities so as to make the villagers living in the backward districts of Madhya Pradesh.

Focus areas of Hartika

Natural resource management

Water, sanitation, and hygiene

Integrated water resource management

Agriculture and crop management

Operation and maintenance

Farmer producer company

CHAPTER 2: RESEARCH METHODOLOGY

Research can be defined as a logical and systematic search for new and useful information on a particular subject matter. Social Science Research refers to the systematic activity of gaining new knowledge by following scientific principles and methods in order to minimize bias and subjectivity. It is opposed to writing something based on assumptions or speculation. Though insight into certain facts can also be gained through common sense and based on general observation and hearsay, those facts will not be considered valid until they have been obtained in a methodical manner that can stand the test of time. The defining characteristics of scientific research are objectivity, ethical neutrality, reliability, testability, and transparency.

Identification of the research problem provides the starting point of research. It is then defined and redefined through a proper review of the literature on the problem, or deliberations with research guides and others knowledgeable in the area of interest. Each research problem has a multitude of perspectives and dimensions. Research cannot cover all those in one study.

Thus, we need to delimit the research problem into a measurable problem. This helps us formulate objectives, make decisions on the research design, and sample design and choose the type of research instruments to be used for collecting the data. It also helps determine how these data can be edited, coded, classified, tabulated, and interpreted so that findings and conclusions can be reached. Every research problem needs to have a proper methodology to foresee problems that could arise and also to steer the research process in the proper direction without losing focus.

Use of Mixed Methodology for Maximum Insights

The research concern here is to understand and assess the impact created by HDB Financial Services with Haritika as the implementation partner on fluoride mitigation strategy and providing clean drinking water access in the Karera Block of the Shivpuri District. The research gives due emphasis on the social and future impact the project creates in the community and the various stakeholders in the community. Towards this end, to gain maximal insight, both quantitative and qualitative techniques were used.

Application of Quantitative Techniques

A quantitative study is needed if the focus is on presenting the study problem in terms of numbers, frequencies, percentages, etc. A quantitative study always uses structured tools like questionnaires and interview schedules, in which questions are planned well in advance by the researcher before entering the field. Though the information that is obtained is easily amenable to various statistical measures and tests, quantitative information has its own limitations. It can uncover only the surface phenomena. It is unable to penetrate beneath the surface and identify what is hidden underneath. In this study, to assess the impact, structured tools like the interview schedule administered were used, which helped in getting quantifiable information.

Application of Qualitative Techniques

Only qualitative research can unravel enriched and hidden information that may not be evident in the face of things. The qualitative approach is distinguished by deeper probing and flexibility and it can yield massive amounts of data that were not anticipated when the research was initiated. For better accuracy, to ensure anonymity, and at the same time cover a larger sample population quantitative techniques were used. Qualitative techniques of interviews with key stakeholders and interviews with people in the community were adopted for a better understanding of the problem alongside quantitative research.

Ensuring Triangulation

Triangulation is needed to increase the credibility and validity of the research findings. It is also a measure taken to ensure the trustworthiness of the research process. The findings of the quantitative research were verified with the insights from qualitative research and the report was structured to reflect this point.

Research Design

- Name of the project : Swajal project in Shivpuri, Madhya Pradesh
- Project Partner : Hartika
- Research Design Used : A mixed method was used to conduct the study by emphasizing both qualitative and quantitative methods of data collection.

- Sampling Technique : Stratified Random sampling and Purposive Sampling
- Sample Size : 350 beneficiaries
- Qualitative Methods Employed : Key Stakeholder Interviews; Focus Group Discussions

Data collection methods and tools

To interview the key informants, a structured interview schedule with closed-ended questions was prepared. To gather the qualitative data, semi-structured open-ended interview guidelines were used.

Key Stakeholders

Objectives of the study

The study intends to find out the impact of the Swajal project implemented by Hartika with HDB Financial Services as the funding partner.

Specific objectives

- To understand the impacts of the Swajal project on fluoride mitigation.
- To study the effectiveness of the project in providing clean drinking water access in the Karera Block of Shivpuri District.
- To study the impact of the project on its stakeholders.

Ensuring Commitment to Research Ethics

Anonymity

Anonymity refers to not revealing the identity of the respondents. This research study strictly sticks to not revealing the identity of respondents unless the same is warranted for the illustration of success stories or case studies. After the research is completed, the research should not reveal which individual respondent answered which question in what manner. The results will be revealed only as an aggregate, so no one will be able to single out the identity of a particular respondent. This is required to not break the trust of the respondent by not revealing the individual identity.

Confidentiality

Research subjects participate in the process only on the basis of the trust that confidentiality will be maintained. Hence, the research will not reveal any data regarding the respondents for purposes other than the research study.

Non-Maleficence

This implies that the research would not harm the research subjects. This study ensured that the respondents were not harmed in any way.

Beneficence

Any research study should lead to some benefits for the respondent. This research study ensures that individuals, groups, and communities benefit and that their well-being is enhanced.

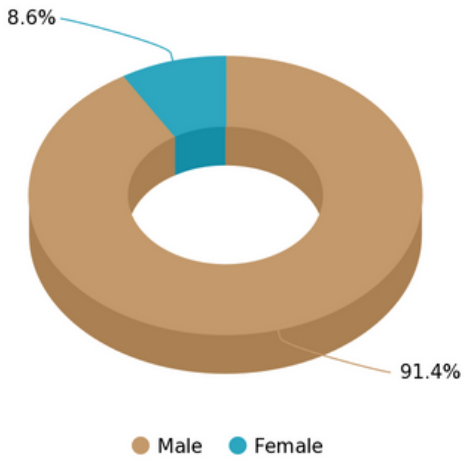
Justice

Justice refers to being fair to all. This research study ensures equal treatment of all its research subjects and no biases or prejudices towards any group based on social stereotypes or stigma associated with being a member of a certain group or class.

CHAPTER 3: MAJOR FINDINGS OFTHE STUDY

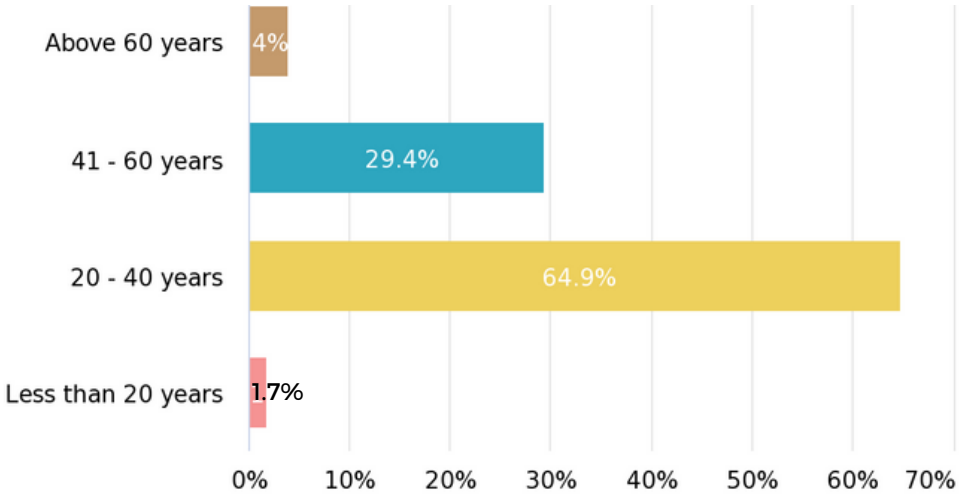
The study, which attempted to assess the impact of the Swajal project on fluoride mitigation and providing clean drinking water access in the Karera Block of Shivpuri District, came with findings that are given below,

Chart 1: Gender Percentage



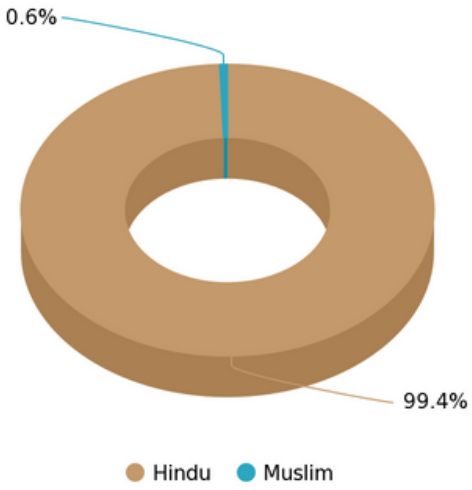
The study reveals that the majority of the respondents (91.4%) were males, and only 8% were females.

Chart 2: Age Groups



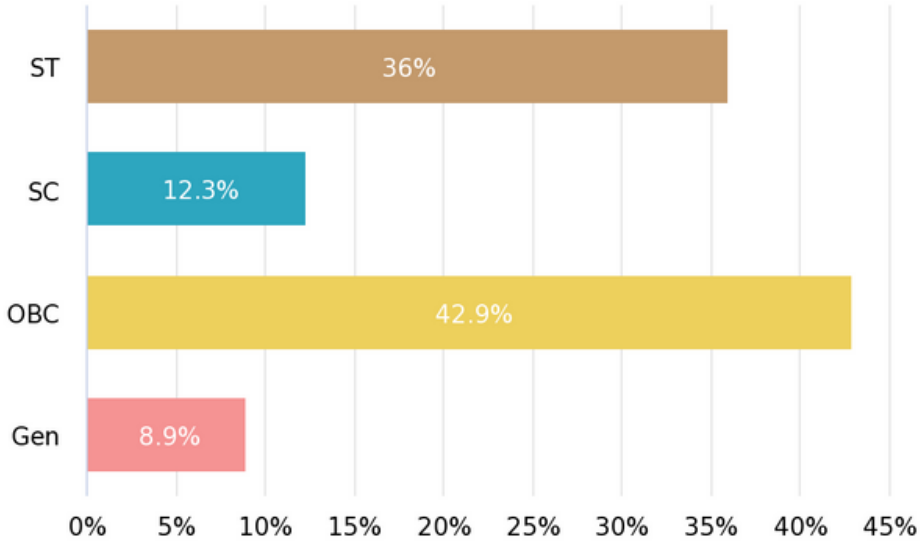
The study highlights a majority of respondents, 64.9%, falling within the age group of 20 to 40 years, followed by 29.4% in the age group of 41 to 60 years, while participants above 60 years accounted for 4%, and those below 20 years represented 1.7% of the total sample.

Chart 3: Religion



The study reveals that an overwhelming majority of respondents, 99.4%, are Hindu, with a minority of only 0.6% belonging to the Muslim religion.

Chart 4: Social Category

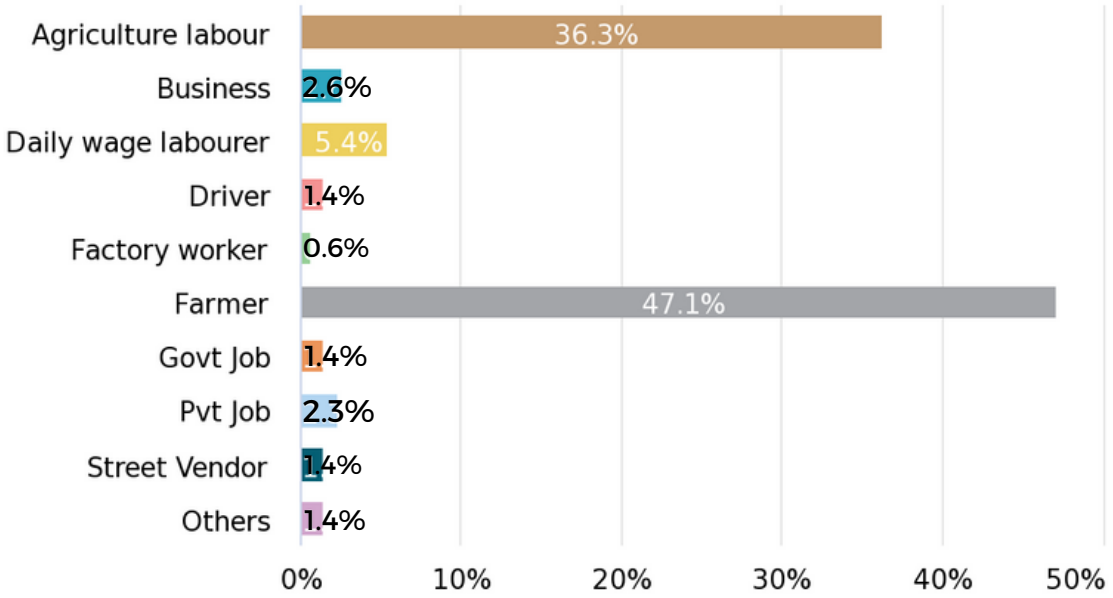


The study reveals that a significant portion of the respondents belonged to the Other Backward Classes (OBCs) with 42.9% representation, followed by Scheduled Tribes at 36% and Scheduled Castes at 12.3%. Additionally, a smaller percentage of 8.9% falls under the General category.

"I am Chandan Singh, a beneficiary of the Swajal project by Hartika in Mugawali village. Earlier, it was a huge concern for all of us, especially women, to fetch water from the nearby well, which was located around 750 meters away. Sometimes, even I had to fetch water during emergencies. However, with the 40,000 liters tank being constructed, we are now receiving water twice a day, which has solved most of our worries. Previously, when my wife was unwell, I had to drop my other essential work and support the family in fetching water."

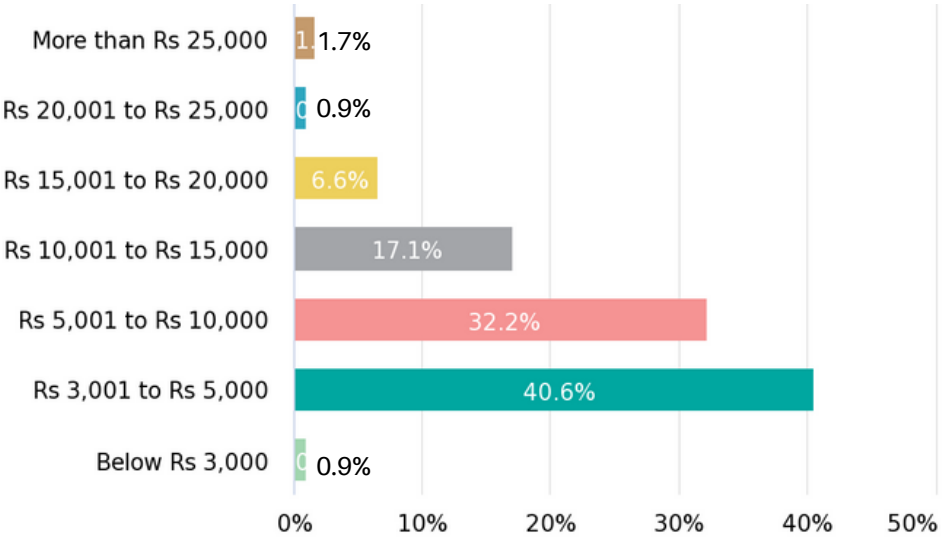
-**Chandan Singh, Mugawali village.**

Chart 5: Occupation of the main earning member



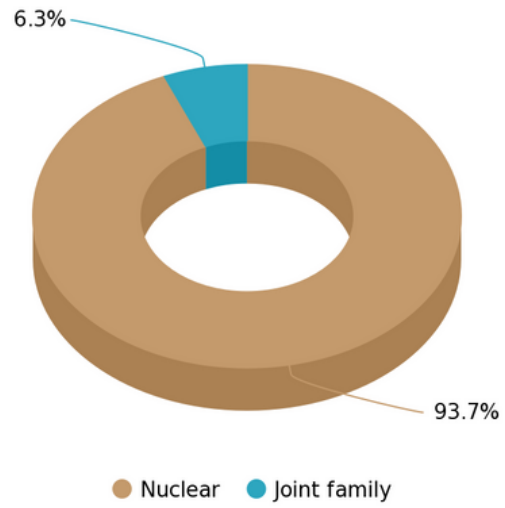
The study indicates that a substantial proportion of the respondents, 47.1%, are engaged in farming as their main occupation, while 36.3% work as agricultural laborers. Furthermore, 5.4% of respondents work as daily wage laborers, 2.6% are involved in business, and 2.3% hold private jobs. In contrast, 1.4% are employed in government jobs, 1.4% work as street vendors, 1.4% work as drivers and 0.6% are employed in factories.

Chart 6: Monthly Family Income (INR)



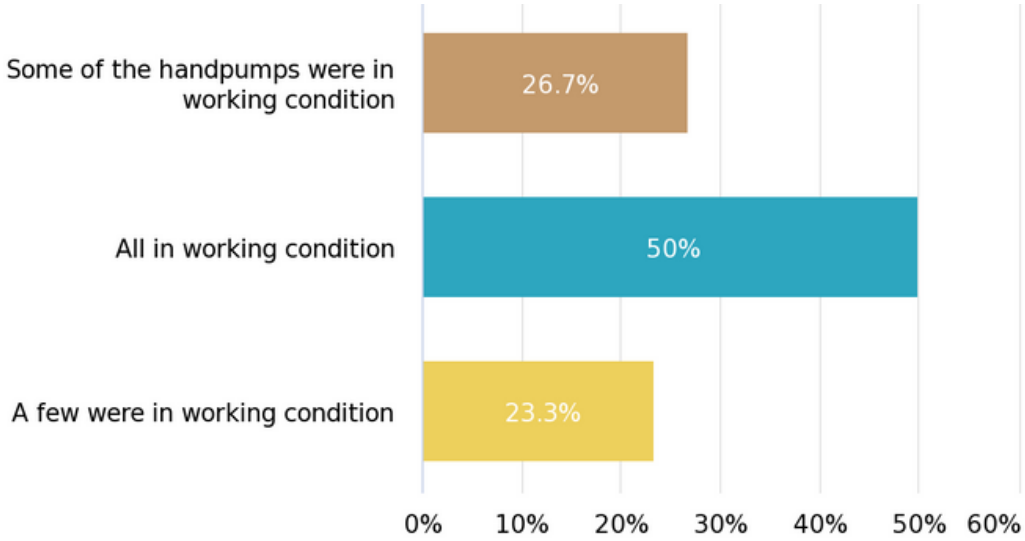
When considering the monthly family income of the respondents, the study indicates that 10% of them earn below 3,000 Rs. A significant percentage of 41% fall within the income range of 3,001 Rs to 5,000 Rs. Additionally, 32% of respondents have an income between 5,001 Rs to 10,000 Rs, while 17% fall within the range of 10,001 Rs to 15,000 Rs. Furthermore, 6% of respondents earn between 15,001 Rs to 20,000 Rs, and 10% have an income ranging from 20,001 Rs to 25,000 Rs.

Chart 7: Family type



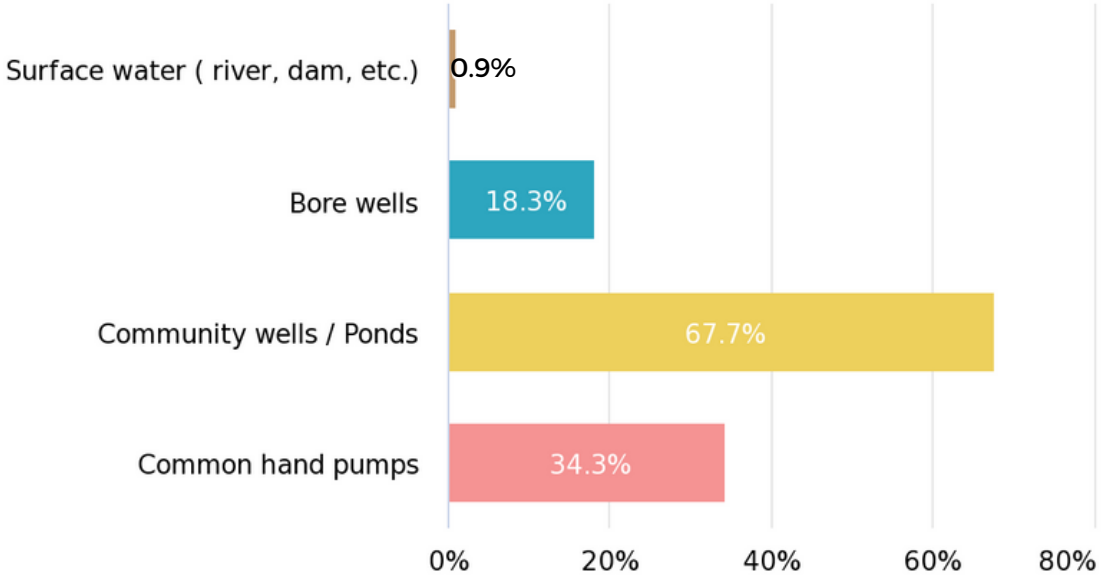
The majority of participants (93.7%) in the study belong to nuclear families, with only a small percentage (6.3%) coming from joint families.

Chart 8: Number of hand pumps in working condition



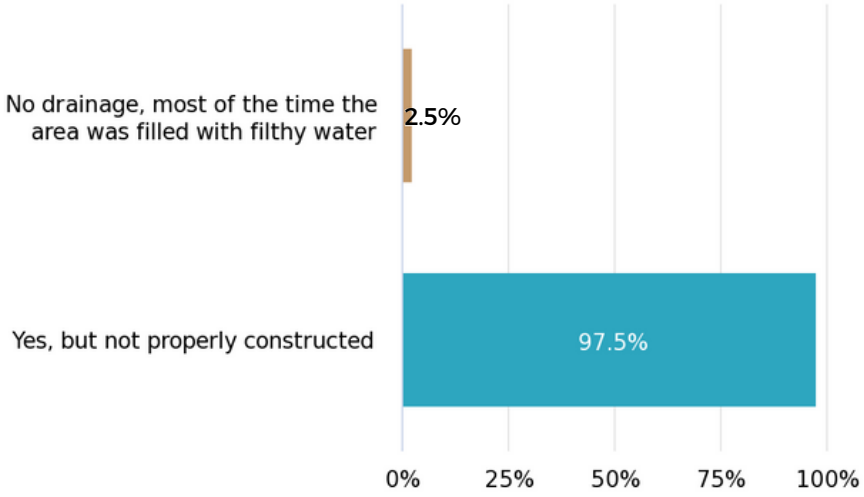
Half of the respondents (50%) reported that all hand pumps were in working condition, while 26.7% stated that some of the hand pumps were functional. However, a significant proportion (23.3%) responded that only a few hand pumps were in working condition.

Chart 9: What were the previous sources of drinking water?



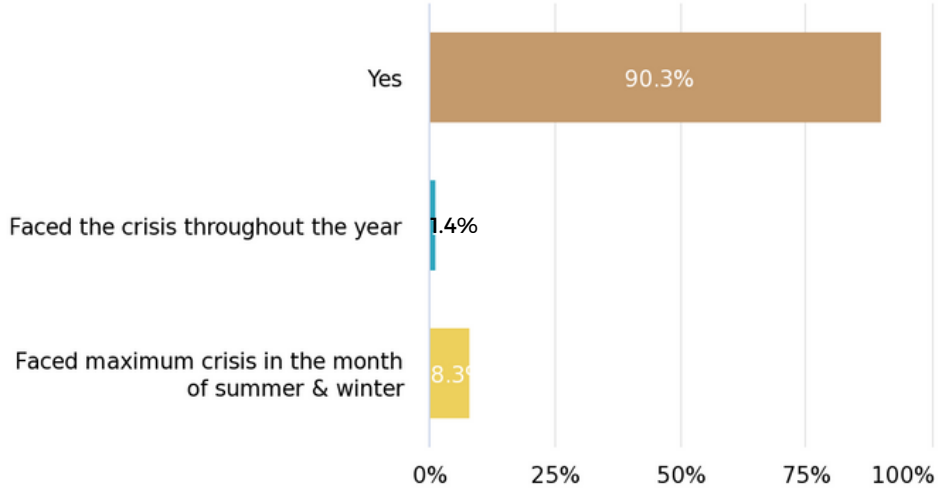
In the study, a majority of respondents (67.7%) reported community wells/ponds as their previous source of drinking water, followed by common hand pumps (34.3%). However, a notable proportion (18.3%) mentioned bore wells as their source of drinking water, while only a small percentage (0.9%) reported surface water as their previous source.

Chart 10:Presence of the channel to drain the wastewater



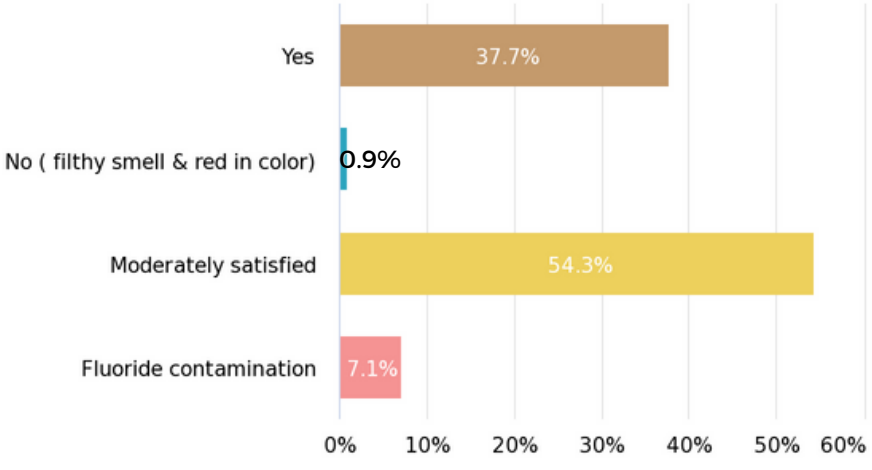
The study reveals that a large majority of respondents (97.5%) acknowledged the presence of a channel to drain wastewater at the hand pump area; however, they reported that the drainage system was not properly constructed. Conversely, a small percentage (2.5%) reported the absence of any drainage, leading to a situation where the area was frequently filled with filthy water.

Chart 11: Water availability throughout the year



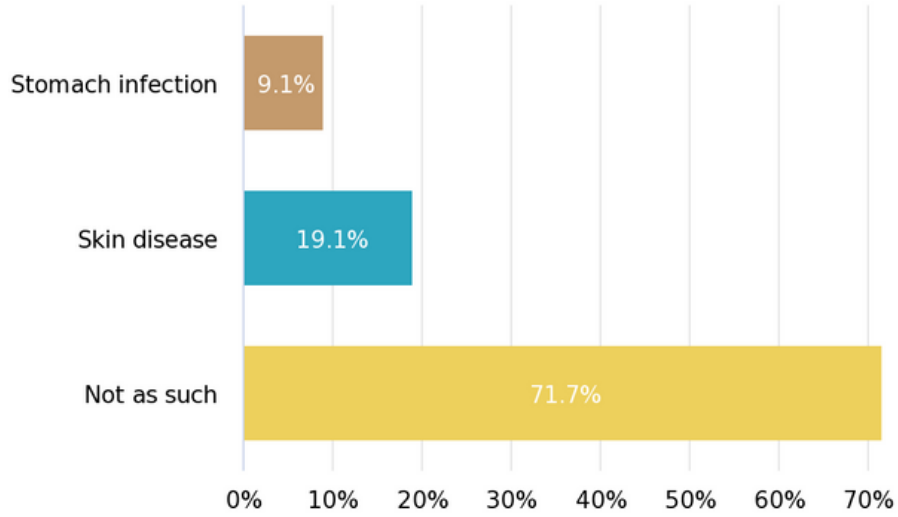
According to the study, a significant majority of respondents (90.3%) reported receiving water adequately throughout the year. However, a notable proportion (8.3%) indicated facing the maximum water crisis during the summer and winter months. In contrast, a small percentage (1.4%) reported experiencing water availability issues consistently throughout the year. These findings suggest that while the majority of respondents have sufficient water access, a notable minority faces seasonal challenges, and a smaller proportion experiences chronic water scarcity regardless of the time of year.

Chart 12: Quality of drinking water



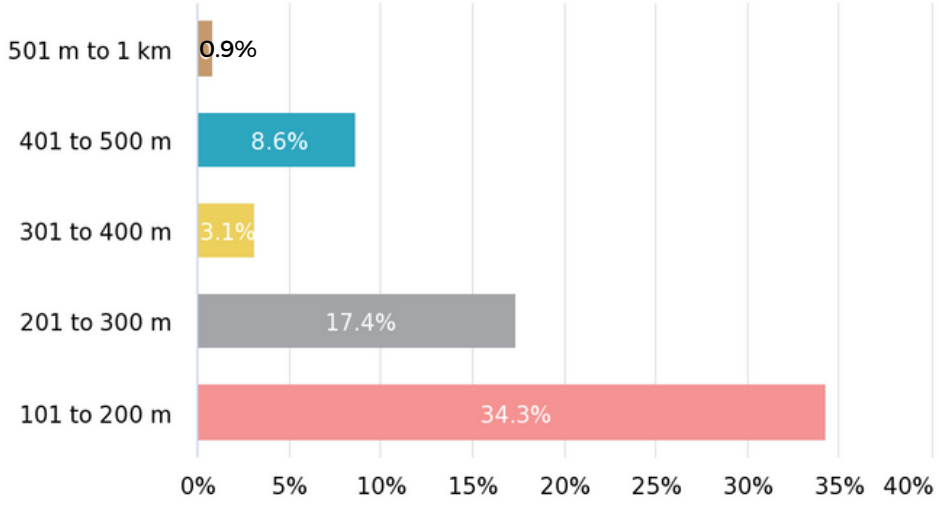
In terms of the quality of drinking water, the study reveals that a majority of respondents (54.3%) expressed moderate satisfaction with the water quality and 37.7% of the participants reported that the quality of water is good. However, a concerning percentage (7.1%) mentioned the presence of fluoride contamination in the water, highlighting a potential health risk. Moreover, 0.9% expressed dissatisfaction with the water quality, specifically noting issues such as a filthy smell and a reddish color.

Chart 13: Skin disease or Stomach problems



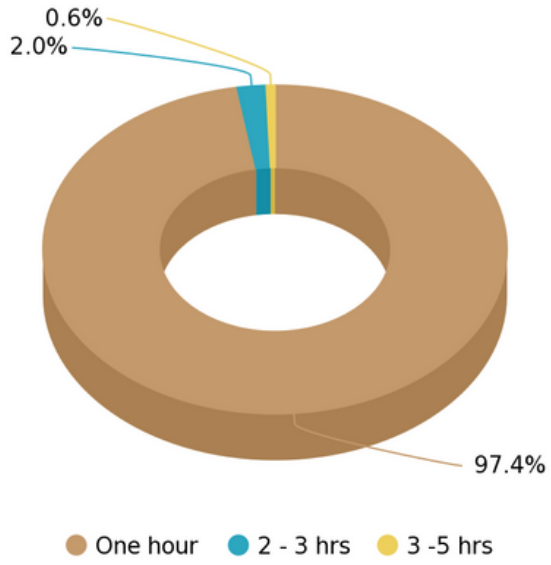
According to the study, 71.7% of the respondents reported no problems such as skin diseases or stomach problems either for themselves or their family members due to fluoride-contaminated water intake. However, a notable proportion (19.1%) of participants reported suffering from skin diseases, indicating a potential association with fluoride contamination. Additionally, 9.1% of the respondents reported that either they or their family members experienced stomach infections specifically linked to fluoride-contaminated water consumption.

Chart 14: Distance traveled to the Water points earlier?



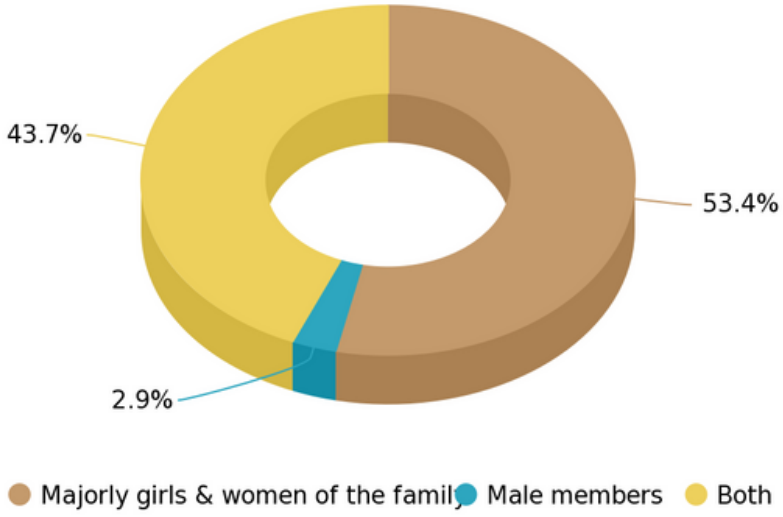
The study revealed that a significant percentage of respondents faced varying distances to access water sources. Specifically, 34.3% of participants had to travel a distance of 101 to 200 meters, while 17.4% had to cover a range of 201 to 300 meters. Furthermore, 8.6% had to travel 401 to 500 meters, 3.1% traveled 301 to 400 meters, and 0.9% had to cover a distance of 501 meters to 1 kilometer to reach their previous water source.

Chart 15: Time spent on fetching water



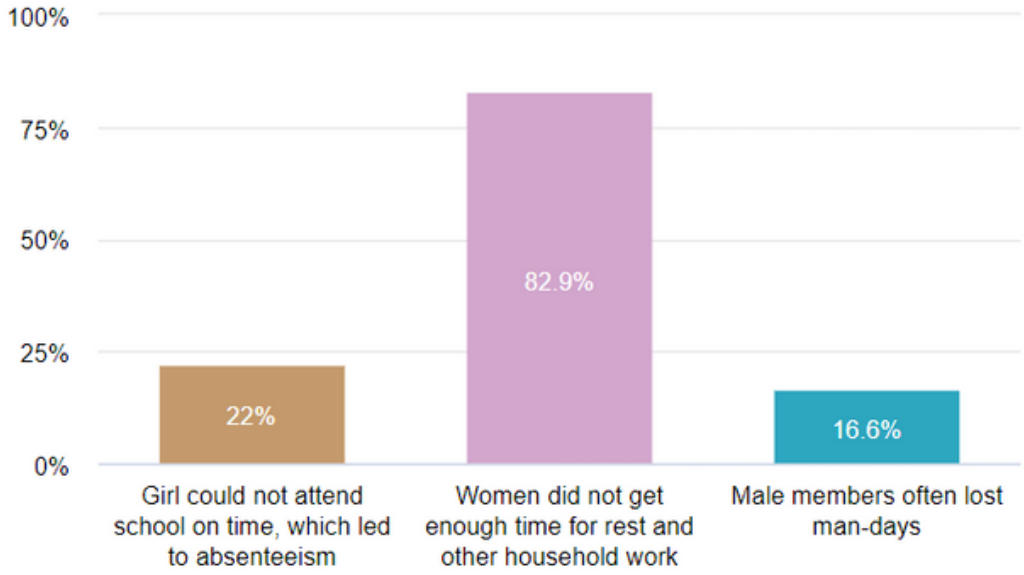
The study reveals that the majority of participants (97.4%) reported spending approximately one hour to collect water from the water points. A small percentage (2%) stated that it took them two to three hours to complete the task. However, a further minority (0.6%) mentioned spending a significant amount of time, ranging from three to five hours, to fetch water from the source.

Chart 16: Who goes to fetch water daily



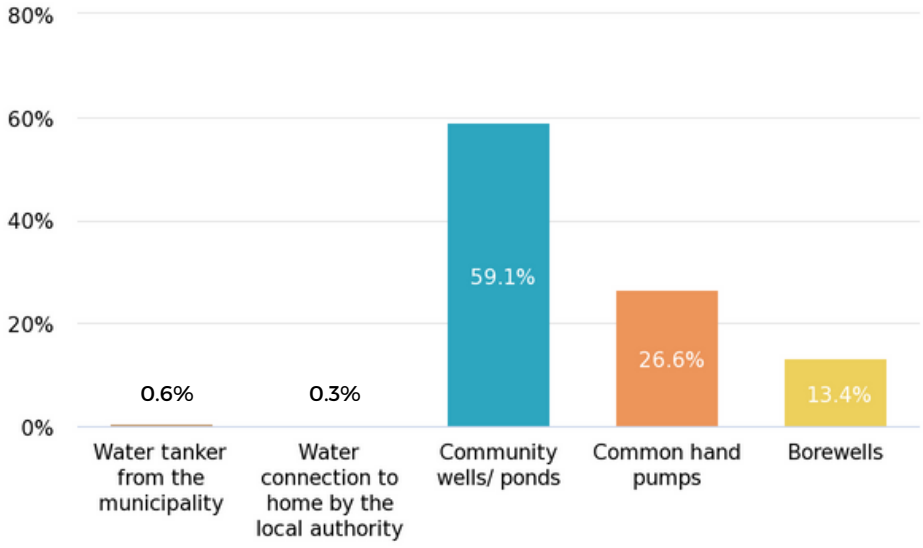
According to the study, more than half of the respondents (53.4%) reported that girls and women of the family are primarily engaged in the daily task of collecting water. In contrast, a smaller proportion (2.9%) mentioned that male members are primarily responsible for this activity. However, a significant percentage (43.7%) reported that both men and women in the household are involved in collecting water on a daily basis.

Chart 17: Challenges faced due to long hours for fetching water



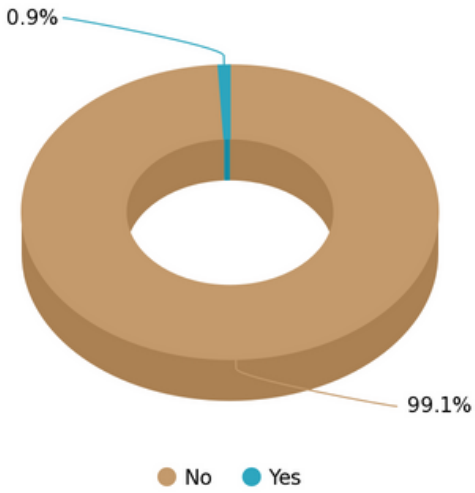
The study findings indicate that the consumption of long hours for water collection poses various challenges, with a significant majority of respondents (82.9%) highlighting that women lack sufficient time for rest and other household work, while 22% reported negative implications for girls' school attendance, and 16.6% mentioned the loss of man-days for men.

Chart 18: Sources of water for cooking, bathing , washing clothes, etc



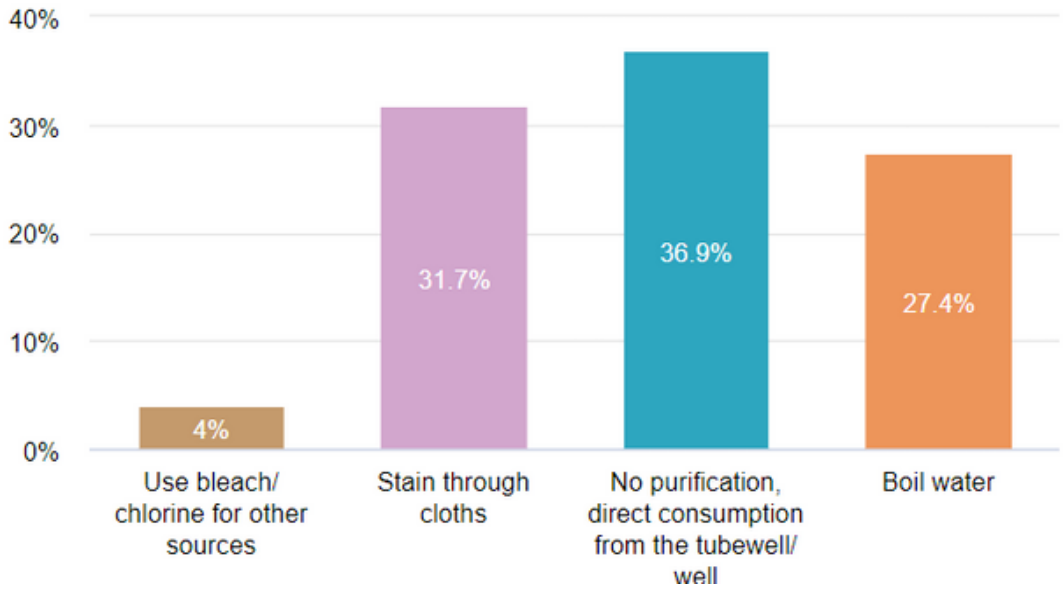
The study reveals that for cooking and handwashing purposes, the majority of participants (59.1%) rely on community wells/ponds, followed by common handpumps (26.6%) and borewells (13.4%). A small percentage (0.6%) reported using water tanker supplies from the municipality, while an even smaller proportion (0.3%) mentioned accessing water through a home water connection provided by the local authority.

Chart 19: Water purifier at home earlier



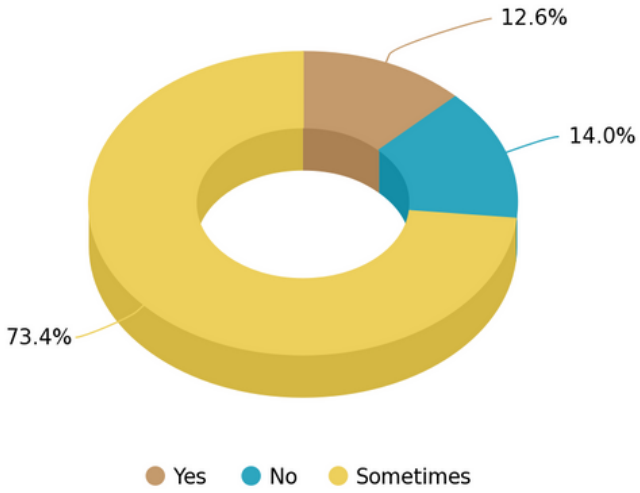
In the study, a large majority of respondents (99.1%) reported not having a water purifier at home prior to the study, indicating a lack of access to a dedicated water purification system. Conversely, a small percentage (0.9%) mentioned that they did have a water purifier at home before the study, suggesting some level of prior investment in ensuring water quality within their households.

Chart 20: Purification of water earlier



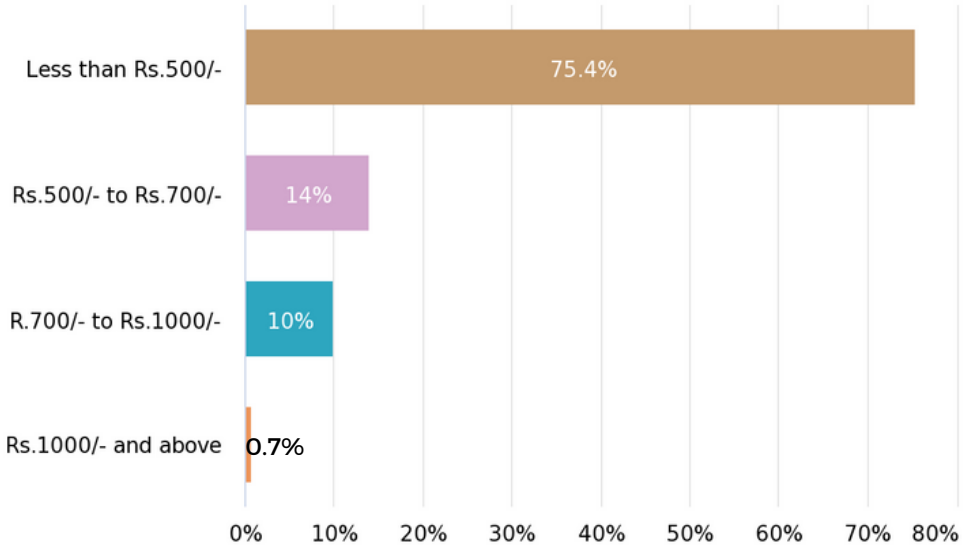
According to the study, a significant proportion of respondents (36.9%) reported never purifying water and consuming it directly from the source, such as a tube well or well. Additionally, 31.7% mentioned that they used to purify water by straining it with a cloth. Furthermore, 27.4% reported using boiled water as a purification method, while a smaller percentage (4%) stated that they used bleach or chlorine to purify water previously. These findings indicate various practices employed by the respondents to ensure water safety, with a notable reliance on boiling and straining methods in the absence of dedicated water purifiers.

Chart 21: Suffer from diarrhoea/ jaundice/ typhoid



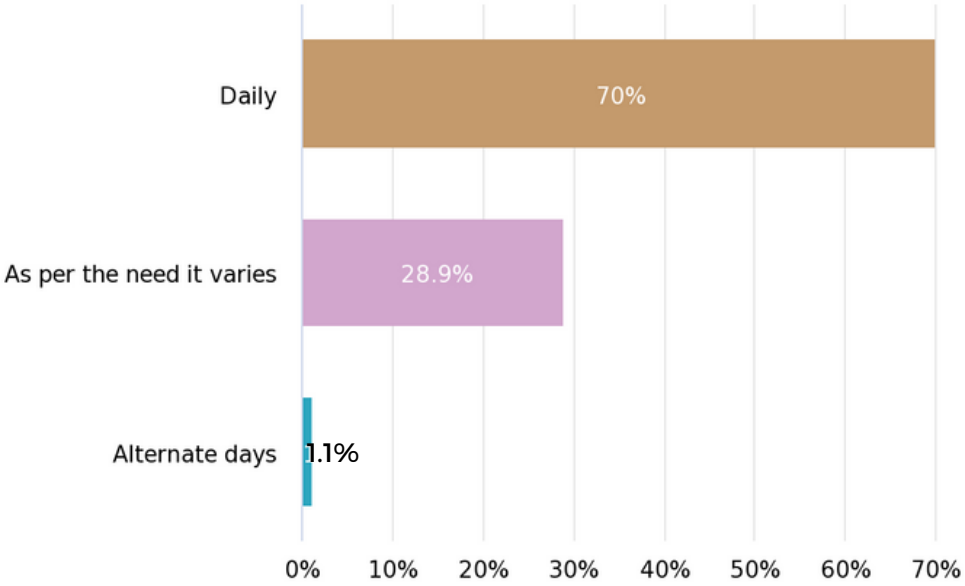
The study findings indicate that a significant proportion of respondents (73.4%) reported that their family members sometimes suffer from water-borne diseases such as diarrhea, jaundice, and typhoid. A smaller percentage (14%) mentioned that their family members do not suffer from any water-borne diseases. However, a concerning portion (12.6%) reported that their family members often experience waterborne diseases.

Chart 22: Expenditure on medical expenses



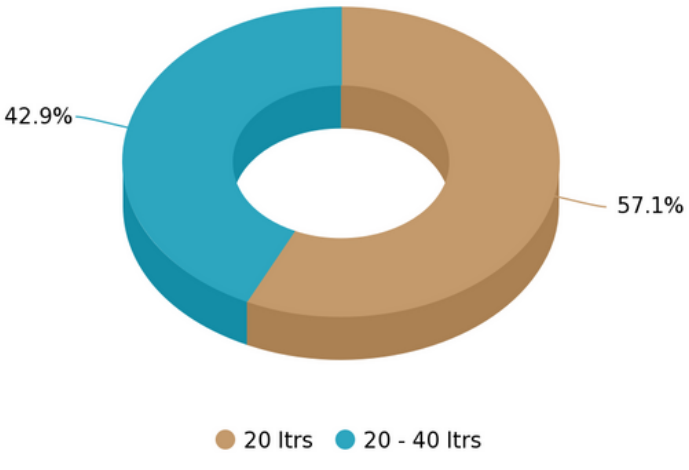
According to the study, a majority of respondents (75.4%) reported spending less than Rs 500 on medical expenses. A significant proportion (14%) mentioned spending between Rs 500 and Rs 700, while 10% reported medical expenses ranging from Rs 700 to Rs 1000. A small percentage (0.7%) had expenses exceeding Rs 1000. These findings shed light on the range of medical expenses incurred by the participants, indicating varying levels of financial burden related to healthcare.

Chart 23: Frequency of visit to the RO



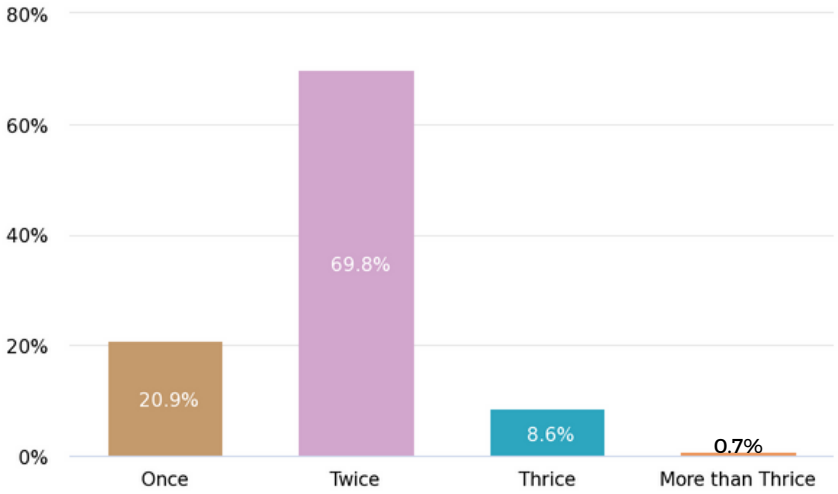
The study reveals that a significant majority of respondents (70%) reported visiting the Reverse Osmosis (RO) system on a daily basis to access purified water. A notable proportion (28.9%) mentioned visiting the RO as per their needs, suggesting a less frequent usage pattern. In contrast, a small percentage (1.1%) reported visiting the RO on alternate days. These findings highlight the frequency of visits to the RO system among the surveyed population, with the majority relying on daily access to purified.

Chart 24: Amount of water fetched every day



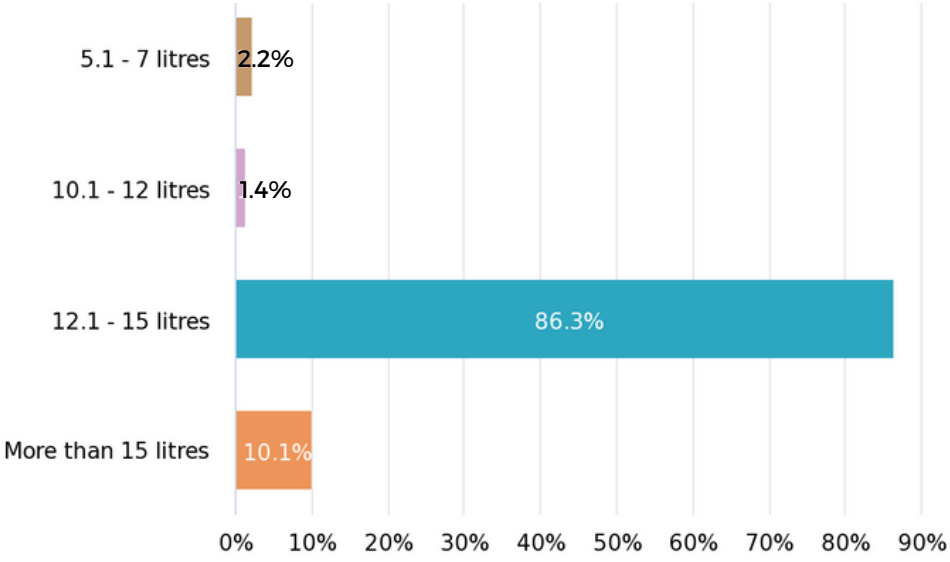
The study reveals that a significant proportion of respondents (57.1%) reported receiving 20 litres of water each day. Additionally, 42.9% of the participants mentioned receiving a higher quantity, ranging from 20 to 40 litres of water daily. These findings highlight the varying water allocation among the surveyed population, with a majority receiving a standard quantity of 20 litres per day, while a substantial minority has access to a larger supply.

Chart 25: Number of times respondents were able to access the card in a day



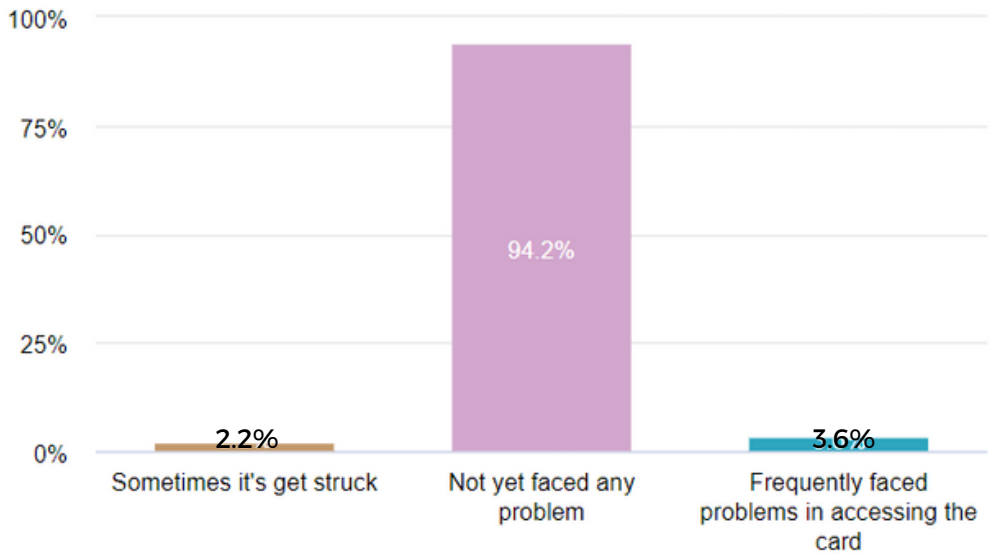
According to the study findings, a majority of respondents (69.8%) reported being able to access the card for water supply twice a day. Additionally, 20.9% mentioned having access to the card once a day, while a smaller proportion (8.6%) reported being able to access the card three times a day. Interestingly, a very small percentage (0.7%) of respondents mentioned having access to the card more than three times a day. These findings highlight the frequency of card usage for accessing water supply among the surveyed population, with the majority having the opportunity to access it twice a day. It emphasizes the need for appropriate scheduling and allocation of water resources to ensure sufficient and equitable distribution for daily needs.

Chart 26: Access to number of litres of water through easy access



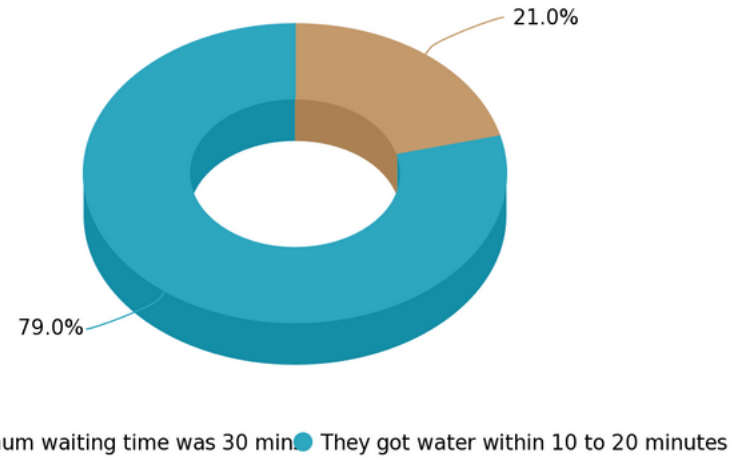
The study findings indicate that a majority of respondents (86.3%) reported being able to access 12.1 to 15 liters of water with easy access. A significant proportion (10.1%) mentioned having access to more than 15 liters. On the other hand, a smaller percentage of respondents (2.2%) reported accessing 5.1 to 7 liters, and 1.4% reported accessing 10.1 to 12 liters of water with easy access.

Chart 27: Difficulties faced in accessing the card



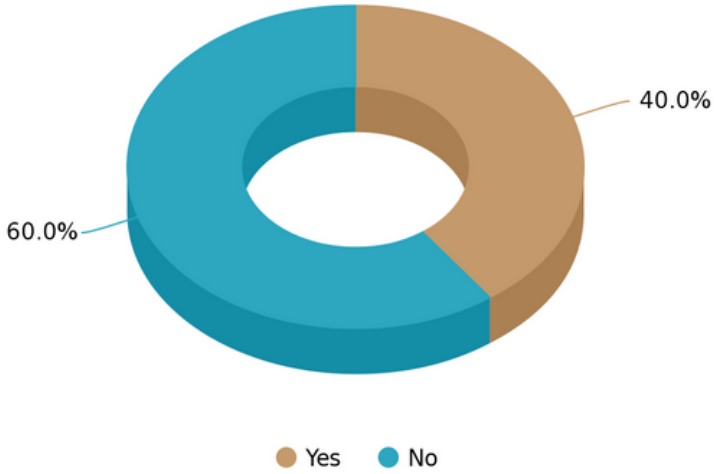
According to the study, a large majority of respondents (94.2%) reported not facing any problems in accessing the card for water supply. However, a small percentage (3.6%) mentioned frequently encountering difficulties in accessing the card. Additionally, a minor proportion (2.2%) reported experiencing occasional instances where the card gets stuck. These findings highlight that the majority of respondents have not faced significant issues with accessing the card, indicating a relatively smooth process.

Chart 28: Standing in long queues to get water



According to the study, a notable proportion of respondents (21%) reported needing to stand in a long queue for accessing water, with a minimum waiting time of 30 minutes. On the other hand, the majority of respondents (79%) mentioned obtaining water within a shorter time frame of 10 to 20 minutes. These findings highlight the varying waiting times experienced by individuals when accessing water. While a significant percentage reported longer waiting periods, it is noteworthy that the majority had relatively quick access to water. This indicates the importance of efficient water distribution systems and minimizing waiting times to ensure convenient and timely access for all individuals.

Chart 29: ATW cards given for RO usage



According to the study, the data reveals that 60% of the respondents reported that they have never been given an ATM card for RO usage. In contrast, 40% of the participants stated that they had been provided with an ATM card specifically for RO usage.

Panchayat Involvement in the RO Plant Project

The information gathered from the interview with Reena Thakur, a representative of the Panchayat, provides insights into the involvement of the Panchayat in the implementation and maintenance of the RO plant project in Ghasarahi village. The villagers in Ghasarahi contributed their land for the development of water tanks and the extension of the pipeline and water connections. Additionally, the Panchayat provided their land for the project.

The Panchayat has no direct involvement in the maintenance of the RO plant. The responsibility for maintenance lies with the Water Committee, which operates independently. The Panchayat expressed satisfaction with the project. Although specific details regarding the reasons for their satisfaction were not provided, it can be inferred that the successful implementation and functioning of the RO plant contributed to their contentment. The Panchayat is aware of HDB Financial Services, the funding agency that supported the RO plant project.

The successful handover of the project to the Water Committee ensures community ownership and sustainability of the RO plant in Ghasarahi village.

Case Study 1

Improved Access to Safe Drinking Water in Ghasarahi Village

The information gathered through interviews with Harendra Singh, the General Secretary of the Village Development Committee, provides insights into the project implementation, challenges faced, community involvement, and the impact of the interventions. Before the project implementation, the villagers faced significant challenges related to accessing safe drinking water. The presence of fluoride-contaminated water caused health issues among the villagers, including dental problems, kidney stones, and lumps. The Panchayat actively participated in the planning and execution processes of the project. The community supported the implementing agency by identifying suitable locations for the development and installation of a fluoride filter. The villagers donated land and contributed funds for the development of a borewell.

Besides the RO plant and pipeline connection, the village relies on handpumps and borewells as alternative drinking water sources. All the handpumps and borewells are functioning properly. Although there is no Water ATM in the village, a fluoride filter has been installed by Hartika. All households in the village obtain their water from this fluoride filter. The fluoride filter, serving as a water storage unit, has a capacity of 500 liters.

The village has a dedicated Village Water Committee named "Gram Utthan Samiti Ghasarahi" responsible for the maintenance, collection of user charges, and operation of the water process. The committee consists of 12 members. One person is directly involved in the regular operation of the project, but they do not receive any salary. The collected contributions from the villagers are primarily used for the maintenance of the fluoride filter project.

All committee members have received training on the water tank and fluoride filter maintenance and operations. The training sessions, lasting for approximately 1-2 hours, covered topics such as daily operations and maintenance. The committee members found the training to be highly useful, enabling them to perform their duties effectively at the ground level. The installation of the fluoride filter has significantly improved access to safe drinking water in Ghasarahi village. The villagers no longer have to consume fluoride-contaminated water, reducing health issues caused by fluoride contamination. However, it is recommended to install an RO water setup and provide water tank and pipeline connections to every household to further enhance the availability of safe drinking water.

The qualitative report highlights the positive impact of the fluoride filter in addressing the safe drinking water crisis in Ghasarahi village. The involvement of the Village Water Committee, community support, and proper maintenance have contributed to the successful implementation and operation of the project. By understanding the challenges faced and the progress made, further interventions can be planned to ensure sustained access to safe drinking water for all households in the village.

Case Study 2

Stakeholder Interaction: Water Committee and HDB RO Plant/Water Tank Project in Motipura Village.

An interview with Prakash Adivasi, the Water Committee President of Motipura Village focused on various aspects of the HDB Financial Services RO Plant/Water Tank and pipeline extension project, including the community's water sources, project details, pre-project intervention, roles and responsibilities of the Water Committee, and recommendations for improvement.

Besides the RO Plant/Water Tank and pipeline connection, the village has handpumps and wells as alternative drinking water sources. All the handpumps and wells in the village are currently in working condition. 45 households have access to the Water Tank and Water Standpoint connection through the pipeline project and the water Tank has a capacity of 40,000 liters. The RO Plant and Water Tank are supplied by a borewell as the primary water source.

Before the project implementation by HDB Financial Services, the villagers faced challenges such as having to fetch water from wells located approximately 500 meters away. During summer, the water levels in these wells would significantly decrease, and the handpump had not been functional for the past five years. The Panchayat actively participated in the project planning and execution processes, working alongside the implementing agency. The community also supported the agency in identifying suitable locations for installing the Water Tank and providing the necessary land. While the Panchayat did not provide financial assistance for the Water Tank's development, the beneficiaries contributed user charges of 50 rupees per month and 1000 rupees for water connections at their houses. These funds are utilized for maintenance by the Village Water Committee. Only one person is directly involved in the regular operation of the project, receiving a monthly salary of 1000 rupees, and the user charges collected from the Water Tank and pipeline project are deposited into the Village Water Committee's bank account and utilized for project maintenance. Currently, the Village Water Committee has a functional bank with a current balance of 35,000 rupees and one of the primary challenges faced by the Water Committee is the collection of user charges.

The interview with Prakash Adivasi, the Water Committee President, provided valuable insights into the HDB Financial Services RO Plant/Water Tank project in Motipura Village. The community actively participated in the project planning and execution, and the Water Committee plays a vital role in maintaining and operating the project.

CHAPTER 4: IMPACT CREATED BY THE PROJECT

- **Improved Access to Safe Drinking Water:**

The installation of fluoride filters, RO plants, and water tanks with pipeline connections has significantly improved access to safe drinking water in the respective villages. For example, in Ghasarahi village, all households obtain their water from the fluoride filter, eliminating the consumption of fluoride-contaminated water. This has resulted in a reduction in health issues caused by fluoride contamination. In Motipura village, 45 households have access to the water tank and pipeline project, ensuring a steady supply of clean drinking water. The project has significantly improved access to clean water for the community, with 90.3% of the respondents reporting adequate water availability throughout the year and 50% of them stating that all hand pumps were in working condition.

- **Time and Effort Savings:**

With improved access to clean water, there has been a reduction in the time and effort required to fetch water. This is reflected in the fact that 79% of the respondents reported obtaining water within 10 to 20 minutes, leading to increased productivity and reduced burden on individuals, particularly women, and girls. Similarly, in Motipura village, the pipeline project has provided households with a reliable and consistent water supply, eliminating the need to fetch water from distant sources.

- **Increased Gender Equality:**

The project has contributed to promoting gender equality by reducing the burden on women and girls who were traditionally responsible for water collection.

- **Improved Education Opportunities:**

With reduced time spent on water collection, there is a positive impact on education, as indicated by 22% of the respondents reporting that girls can now attend school on time, leading to reduced absenteeism and improved educational outcomes.

- **Enhanced Community Well-being:**

Overall, the project has contributed to improving the well-being of the community by providing better access to clean water, reducing waterborne diseases, and creating a more equitable and sustainable water supply system.

- **Community Involvement and Ownership:**

The active involvement of the community and the establishment of Village Water Committees have facilitated the successful implementation and operation of the projects. In Motipura village, the Village Water Committee plays a vital role in maintaining and operating the project, with members receiving training on the water tank and fluoride filter maintenance and operations.

- **Financial Sustainability:**

The collection of user charges from beneficiaries has contributed to the financial sustainability of the projects.

CHAPTER 5: OECD FRAMEWORK

RELEVANCE

RATING ● ● ● ● ●

The Swajal project, implemented by HDB Financial Services in collaboration with Hartika, is highly relevant as it addresses the critical issue of fluoride contamination and lack of clean drinking water access in the villages of Shivpuri District, Madhya Pradesh. By creating a roadmap for fluoride mitigation, installing advanced water treatment plants, conducting community sensitization, and empowering Village Water Committees, the project is working towards providing safe drinking water to the affected communities and reducing water stress. Additionally, through water conservation interventions and infrastructure development, the project aims to ensure long-term sustainability and promote efficient water management practices.

COHERENCE

RATING ● ● ● ● ●

The project shows a robust alignment with the following Sustainable Development Goals (SDGs):
SDG-3 aims to ensure good health and wellbeing for all.
SDG-5 aims to achieve gender equality and empower all girls
SDG-6 aims to ensure access to water and sanitation for all.
SDG-6, Target 6.1 aims to achieve universal and equitable access to safe and affordable drinking water for all.
SDG-6, Target 6.3 aims to improve water quality by reducing pollution.
SDG-10 aims to reduce inequalities.

It is also coherent with the goals of the Jal Jeevan Mission launched by the Ministry of Jal Shakti.

EFFECTIVENESS

RATING ● ● ● ● ○

The program has successfully achieved its primary goal of providing access to clean drinking water, as evidenced by both quantitative and qualitative data. The implementation of advanced water treatment facilities and infrastructure has ensured clean drinking water availability in the target villages. Moreover, the program has effectively reduced the burden on women responsible for fetching water, thereby improving their quality of life. The community has also been made aware of the health impacts of fluoride contamination through awareness campaigns, generating a sense of urgency and understanding among the residents. Additionally, the program has successfully sensitized the community towards the importance of water conservation, encouraging sustainable practices and fostering a greater sense of responsibility towards water resources.

Index: 5 Points - Very High ; 4 Points - High ; 3 Points - Moderate ; 2 Points - Low ; 1 Point - Very Low

EFFICIENCY

RATING

The program has effectively allocated resources by strategically investing in advanced water treatment facilities and infrastructure, ensuring optimal utilization of available funds. The program's implementation has been streamlined, resulting in cost-effective measures to provide sustained access to clean drinking water. Additionally, the program's focus on strengthening existing Village Water Committees, community sensitization, and awareness campaigns has maximized outreach while efficiently managing resources with minimal resource expenditure.

IMPACT

RATING

The program has significantly improved access to safe drinking water through the installation of fluoride filters, RO plants, and water tanks, reducing health issues caused by fluoride contamination. It has also saved time and effort for community members, particularly women, and girls, by reducing the distance to water sources, leading to increased productivity and improved educational outcomes. The program has enhanced community well-being by reducing waterborne diseases and promoting a sustainable water supply system.

SUSTAINABILITY

RATING

The program focuses on creating awareness and sensitizing the community about water contamination and sustainable water-use practices. It strengthens community-based organizations such as Village Water Committees to ensure local ownership and effective management of water resources. The program also establishes Any Time Water (ATW) machines, which provide clean drinking water through a small user-fee model, promoting financial sustainability and community responsibility. These key elements contribute to long-term behavior change, community involvement, and the availability of clean water in a sustainable manner.

Index: 5 Points - Very High ; 4 Points - High ; 3 Points - Moderate ; 2 Points - Low ; 1 Point - Very Low

CHAPTER 6: RECOMMENDATIONS

- The operation of the Village Water Committee is commendable. However, regular monitoring with regard to the operation of pipelines, reduced pressure of water, and repair of water structures such as water ATWs by the committee are recommended.

- Measures need to be taken to provide ATW cards to the beneficiaries who haven't received the cards yet for the smooth functioning of the project and to achieve the goals.