Tools for Safe Water Stations

Introduction: Why a Toolkit?

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About Safe Water Network

Co-founded in 2006 by actor and philanthropist Paul Newman, along with prominent civic and business leaders, Safe Water Network's mission is to develop innovative solutions that provide safe, affordable water to those in need. We bring together diverse capabilities to address the challenges of local sustainability. Working with the private and public sectors, we advance our field initiatives for broad replication. We also document and share our findings through forums, workshops, reports and case studies.

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FOREWORD

The effectiveness of efforts to alleviate poverty is hampered when people are denied daily, safe drinking water. 884,000,000 people – almost three times the population of the United States – go without clean water every day. Significant but incremental advances have been made toward reducing this indignity through conventional donor-beneficiary approaches, but the number of underserved people has remained constant for over 20 years. There is now clear evidence that the availability of safe drinking water can be significantly expanded by the application of pro-poor, market-based strategies that break from convention and energize people and communities to create and own solutions to prolonged challenges. The **Tools for Safe Water Stations** is presented to guide implementation of this strategy and delivery of safe drinking water for communities around the world wherever the entrepreneurial spirit is uncovered.

Development professionals are recognizing that the ingenuity and entrepreneurship of the poor constitute a rich pool of assets, but there are few experiences that have mobilized this resource to overcome the obstacles to ensuring long-term access to safe drinking water: operations, inclusiveness, ownership, and financial sustainability. The field programs of The Safe Water Network have developed, tested, and adapted methods that are demonstrating the potential of communities to address these challenges. The methods we use can be put into practice using these Tools on a large enough scale to provide water to millions and help move them out of the trap of poverty.

In its decade of operation, The Safe Water Network has never believed it could meet the drinking water crisis alone. It has formed a healthy partnership that reaches across the globe, and it aims to make its experience available to others dedicated to meeting this challenge. To capture what we have learned and make it available, we have packaged our experience and knowledge into a Tool Kit to provide a structured and comprehensive step-by-step approach to develop a local operating capability to cost effectively and reliably provide safe drinking water to populations in need. Unlike conventional approaches, this involves several techniques that introduce best practices – many applied from the private sector – into participatory development practice to achieve sustainable impacts on livelihoods and health.

The Tools in the Kit have been developed to shift control and ownership of decentralized Safe Water Stations to those most directly concerned with their long-term operation - communities and socially-engaged entrepreneurs. The Tools have evolved from nearly a decade of pioneering field experience. Their wide dissemination is timely and intended to contribute to the larger mission of helping the poor exercise leadership in improving the quality of life in their own communities. We hope you apply these Tools and see the same transformations we have seen when the power of entrepreneurism is released to meet critical water needs and pave a way from poverty to progress.

PREFACE TO THE TOOLS FOR SAFE WATER STATIONS

WHY THIS TOOL KIT?

Conventional approaches to public service delivery are not meeting the needs of hundreds of millions of people around the world. Social entrepreneurism is proving to be an innovative, viable, and equitable path toward creating pro-poor ownership of the delivery of necessary public services such as electricity, solid waste management, and drinking water. Entrepreneurial provision of safe drinking water is expanding globally, but the disciplined steps to establish commercially viable and sustainable drinking water operations are not readily available. This Tool Kit provides step-by-step guidance to direct program implementers to supply safe drinking water to and by the poor through decentralized, locally owned Safe Water Stations. The Kit compiles the best practices of development professionals and the private sector and offers to users nearly a decade of lessons learned by the Safe Water Network. Using the Tools in the Kit can make the rapid expansion of community-scale supply of safe drinking water a reality for millions of the world's poor and marginalized.

CONTENTS OF THE TOOL KIT

The Tools in the Tool Kit are designed to guide the user through the activities required to set up a locally run, entrepreneurial drinking water enterprise. They are sequentially organized to guide analyzing of *options*, establishing community ownership and *governance*, obtaining access to a water *source*, installing technology for *purification*, running a business to *sell* water, planning to *distribute* safe drinking water, ensuring the water stays safe to *drink*, and expanding *demand* across the community for the continued purchase of safe drinking water. Each step in this sequence is vital to putting in place a system that comprehensively addresses and protects water sources and the people who use them every day. The Tools to accomplish each step are introduced on the following page.

USING TOOLS TO BUILD A SOURCE-TO-CUSTOMER SAFE WATER PROGRAM

This Tool Kit adapts years of experience to provide clear direction and procedures for each step in the sequence of establishing and operating small-scale, community-sized drinking water systems. The whole sequence defines a source-to-customer drinking water service. This Local Operating Unit has responsibility for the critical functions necessary to ensure (1) drinking water is accessed and supplied on a reliable, affordable, and sustainable basis and (2) market demand among members of the community to purchase the water for their daily needs. By disaggregating and sequencing the actions required to successfully deliver safe water on a daily basis, the Tool Kit brings specific focus to:

- Ensuring community initiative in establishing a safe water system;
- Organizing a local ownership and governance structure to lead system planning and decision making;
- Creating markets and validating benefits from purchasing safe drinking water; and
- Establishing a local operating capability with responsibility to:
    - Ensure daily supply of safe drinking water;
    - Manage the operations, including system performance and financial tracking;
    - Promote healthy attitudes and practices among the community; and
    - Accelerate the rate at which households use the system to meet their daily requirements for drinking and cooking.

The ownership and management of the Local Operating Unit can take different forms – ranging from a community-based, cooperative structure to private ownership. The list of Tools in the Tool Kit and the contribution of each to the building of a Local Operating Unit and the determination of the best form of ownership and management are presented in Table 1.

Table 1: Using Safe Water Tools in Each Step of Establishing a Local Operating Unit.

	Tool Name	Contribution to Establishing a Local Operating Unit for a Safe Water Enterprise
	OPTIONS	
1	Village Quick Review	Identifying potential Safe Water Station locations and partners meeting market size and operational requirements
2	Village Partner Analysis and Evaluation	Selecting a local partner with credibility, an entrepreneurial focus, a record of success, and established local relationships
3	First Village Meeting	Establishing local commitment to the concept and shared financing of a Safe Water Station
4	Detailed Village Analysis	Gathering critical demographic, water-related, market size, and community data to guide decision making
	GOVERNANCE	
5	Second Village Meeting	Documenting agreement to governance structure, financial responsibilities, and an action plan to prepare a Safe Water Station
6	Third Village Meeting	Standing up a Safe Water Station Committee to provide local leadership and investment decisions
	SOURCE	
7	Water Resources Assessment	Selecting a Safe Water Station water source from all potential sources
8	Water Quality Monitoring	Quantifying information to guide technology selection and establishing protocols for long-term testing
	PURIFICATION	
9	Fourth Village Meeting	Choosing a management structure, formalizing operator commitment to civil works, selecting water treatment technology, and dedicating a water source to the Station
10	Closing with an Operator	Selecting an operator, banking initial funds, and receiving a local government resolution of support
11	Signing a Memorandum of Understanding	Establishing a legal agreement describing terms, conditions, roles and responsibilities for Safe Water Station operation
12	Operator Checklist	Providing training and guidance to ensure technology maintenance, standards of hygiene and operation, and customer service
	SELL	
13	Baseline Assessment	Collecting focused, statistically valid data that establish baseline conditions and set the stage for later measurement of Safe Water Station impacts on livelihoods and health
14	Bore Well Installation	Installing a water supply meeting best engineering practices and providing sufficient water for the Station
15	Civil Works Planning	Designing the electrical, physical, and piping layout of Safe Water Station
16	Safe Water Station Pilot Run	Operating the Station under differing conditions and settings while closely monitoring quality, performance, and operator skills
17	Decoration and Promotion	Creating attractive and educational displays to advertise the benefits of the Safe Water Station
18	Inauguration	Launching, advertising, and promoting the Safe Water Station to establish and serve a customer base
19	Fifth Village Meeting	Planning for and committing to an initial demand generation strategy
	DISTRIBUTE	
20	Setting Up Distribution Channels	Developing and initiating a strategy for maximizing market share and size through investments in locally available distribution systems and the promoting use of safe water storage containers
	DRINK	
21	Communication for Hygiene Improvement	Promoting increased adoption of key healthy practices in the home: (1) use of Safe Water Station water for drinking and cooking, (2) purchase and use of safe water storage containers, (3) safe excreta disposal for the whole family, and (4) hand washing with soap
	DEMAND	
22	Market Survey	Understanding how families make purchase decisions and how best to expand the Station customer base
23	Establishing a Brand	Determining the best local style of branding, logo, logo use, and marketing approaches.
24	Increasing Market Size	Using traditional and innovative techniques to increase reach and market penetration

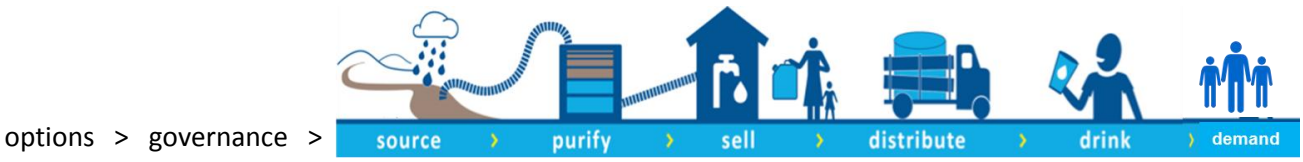
ORIGIN AND USE OF THE TOOLS

The Safe Water Network was established to develop, test, and transfer new approaches that break the cycle of illness and poverty caused by the inability of people to obtain a clean drink of water. The organization has committed significant resources to addressing the challenges to local sustainability, establishing a fact base for what does (and does not) work, and standardizing approaches to facilitate broad scale replication. This Tool Kit is a critical output, intended to guide agencies and organizations to put in place a locally-adapted version of the Safe Water Network's field operations establishing commercially operated, decentralized Safe Water Stations. The Tool Kit is built on experience gained from nearly 5 years of on-the-ground analysis, refinement, and success delivering safe drinking water through community-managed commercial enterprises. Each tool originated from our work in India, but each has been presented in the Tool Kit without geographic or cultural limitations. The Tools are presented for your further adaptation to local conditions.

BENCHMARKING THE FUNCTIONS OF A LOCAL OPERATING UNIT

A Local Operating Unit encompasses the full footprint of community engagement in providing water to improve health. It begins with collaborative analysis of both need and potential ways to address it. It continues through the reliable, locally led provision of safe drinking water and its distribution and use across an entire community. It ends where the water people drink remains uncontaminated and becomes a promoter rather than an obstacle to health and prosperity. The critical sequence by which water flows through the Unit is illustrated in Figure 1.

Figure: The Safe Water Local Operating Unit



Key Performance Indicators						
○ Local decision-making by a representative and recognized committee	○ Consensus and local commitment of water source ○ License to use source	○ No microbial or chemical contaminants ○ Operator training to local youth ○ Affordable and local technology ○ Very low wastage of water produced ○ Consistent operations	○ Operate 12 hours per day ○ Locally-affordable product cost Operating expenses covered ○ Capital expenditure recovered	○ Entrepreneurial incentives to create widespread and last-mile distribution of safe water ○ Travel less than 500 meters to reach the Safe Water Station ○ High percent of the nearby population use the Station	○ High customer retention ○ Hygiene promotion reaches entire population

The Tool Kit is used to establish the Local Operating Unit, but its long-term success must be verified by metrics. The Safe Water Network has established a set of Key Performance Indicators it uses to quantify the operation of each sequential Unit step as shown in Figure 1. The achievement of each Indicator is a definition of successful implementation of each step. Each Safe Water Station reports on these Indicators regularly to validate improvements and movement toward full functioning of the Local Operating Unit. The Safe Water Network has included Tools for metric measurement and reporting, and we hope others will adopt and report on these to begin to establish an agreed-upon standard of performance for these types of operations.

FRAMING PRINCIPLES OF A LOCAL OPERATING UNIT

Three basic premises underlie the Safe Water Network's establishment of a Local Operating Unit providing safe and equitable drinking water.

First, development of a Local Operating Unit is built on the commitment of people to the equitable, local control of long-lasting drinking water improvements.

The greatest of all development resources are people's creativity, initiative, ingenuity, desires, values, and motivation. Our Local Operating Units mobilize these resources to ensure that the development of safe water supplies is a locally led solution to a locally prioritized challenge. The Tools provided in the Tool Kit are intended to help agencies and organizations identify and harness these resources.

Second, safe drinking water must be made affordable and available to the widest possible number of people.

It is unacceptable for the wealthy to drink clean water while the poor do not. Communities will not be healthy until all members drink the same safe water every day. The Tool Kit provides Tools to help generate demand for safe drinking water and cost-effectively serve the entire population in a community.

Third, investments in providing safe drinking water must be socially, environmentally, technologically, and financially sustainable.

Poor communities struggle against unimaginable challenges, so they must have incentives to take on sustainable safe water provision. The Tool Kit targets each aspect of sustainable service provision, develops the Safe Water Station to meet each facet of sustainability, and offers incentives to maintain efficient and sensitive operations - training, education, and locally generated revenue and ownership.

SHARPENING THE TOOLS

With this Tool Kit, the Safe Water Network supports the transition away from conventional donor-beneficiary relationships to a new way of helping millions obtain a safe drink of water in communities around the world. The Tools are not meant to be a prescription, and all are not right for every occasion and location. The final versions you use must be a reflection of the social, cultural, environmental, economic, and political realities communities face.

We look forward to learning from the experiences of others as you adapt these Tools and the operation of decentralized Safe Water Stations is adopted and improved by an increasing number of development professionals. A core goal of our promotion of pro-poor drinking water enterprises is giving up control and facilitating the growth of others. We present this Tool Kit consistent with this vision and we anticipate improving the Tools with your input.

CLOSING

Owning and operating a Safe Water Station extends beyond the structure of brick and mortar dispensing treated drinking water in a remote village. It is a collective journey and the culmination of thousands of villager's hopes and aspirations to change their lives. A Local Operating Unit is comprised of individuals and communities who pledge to pay for water instead of for medical bills and who are committed to transforming the lives of their children. It is women and men who contribute from their meager resources to realize their dream of drinking the same quality of water as their more privileged urban brethren.

The Safe Water Network has seen people's self-confidence grow through their leadership of enterprises built on local knowledge, information, and expertise. We invite you to tell us about your achievements using these Tools, and we welcome hearing about any new materials you have developed.

We wish you and your community partners' success, prosperity, and the best of health.

Introduction to the Screening Module

Village Selection, Partner Identification, and Community Organization

The Initiation Phase of a Safe Water Station is comprised of four sequential modules as illustrated in Figure 1. The first and most important of these is the Screening Module which guides the careful and comprehensive analysis and selection of sites and potential partners. The location of a Safe Water Station is critical, but the full operation of the Station is much more than just the physical plant and the site. Its Local Operating Unit includes these as well as the people, relationships, skills, reach, and effort that must all come together to achieve local ownership, sustainable operation, and health improvement. The Screening Module provides tools to select the right location, establish a working relationship with a collaborative partner, get the buy-in of leaders to the concept and discipline of Station operation, and organize the preparation of a Safe Water Station.

Village Selection. Selecting the right location for a Safe Water Station requires quantification of market size, characterization of natural resources, and understanding the availability of other resources. To economically make sense, the Station must have sufficient population living within close proximity to provide a reasonable expectation of a market size that can support Station operations. For the Station to operate, it requires a year-round source of water and adequate electricity. But for the Station to be successful, the market must express a limited supply of safe drinking water and a demand for more. And, it must have community leaders who understand business concepts such as market share, cost and pricing, demand creation, and capital management. Two tools in the Screening Module are intended to provide this information so that viable locations can be identified.

Partner Identification. External agencies or organizations cannot lead long-lasting solutions to local water needs. They need to identify a collaborative partner that has credibility, a geographic footprint of sufficient size, a focus that is consistent with the market-based concept of a Safe Water Station, and the demonstrated partnerships and level of respect that will support their transparent management of technologies, funds, and education. Selecting the right partner who works with and is respected by the community will be a great asset in developing strategies to access market share through demand creation activities across the community. One of the tools in the Screening Module is intended to help the external agency/organization involved analyze potential partners and quantitatively use this analysis to select the best Village Partner.

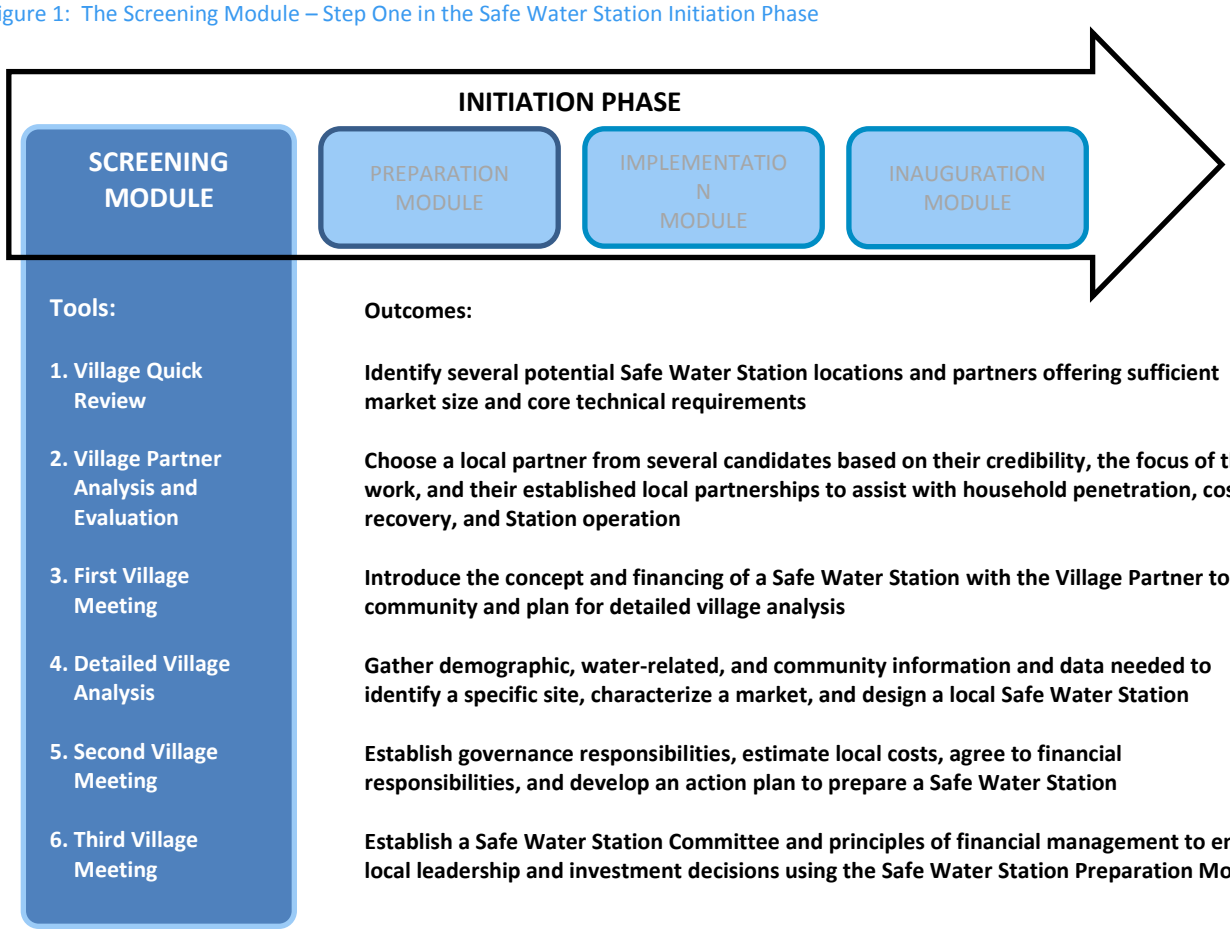
Community Organization. Without the widespread and well-analyzed buy-in of community leaders, a Safe Water Station is highly unlikely to be a successful service provider. Getting the buy-in of leaders is a complex series of steps that introduce, educate, assign responsibilities, and organize the way forward. With this buy-in, the social license of the Safe Water Station is ensured, the certainty of sustainable operations is greatly enhanced, and expectations of viable market become real. To give their buy-in, leaders must fully understand all aspects of the market operations of the Safe Water Station. Transparency, clarity, and conciseness of communication are vital from both sides. Obligations of cash and other resources will be made during discussions, and a high level of trust and collaboration must be established. After gaining this buy-in – demonstrated through the up-front commitment of local resources – the likelihood of successful operation and financial return is high. Three of the tools in the Screening Module are intended to guide these discussions and arrive at a commitment of resources and actions that will be monitored by an organized and legally valid Safe Water Station Committee.

In the Screening Module, the feasibility of establishing a Safe Water Station is determined and a leadership committee is put in place to assist the agency/organization with the tasks that follow. Using this Module, the partners are brought together and the overall process is made clear to and adapted by them to account for local ideas and conditions. As shown in Figure 1, three subsequent modules on Preparation,

Implementation, and Inauguration will provide additional tools to complete the Initiation Phase of a Safe Water Station.

In the Safe Water Network's experience, the tasks in the Screening Module can be completed in 30 days. The tools on the following pages and the expected outcomes from the use of each are introduced in Figure 1. In this Module, the tools are organized sequentially and should be used to gather the necessary information and form a strong and collegial team. With these two important items taken care of, the Safe Water Station Committee and the Village Partner will be ready to use the tools in the Preparation Module to move forward toward establishing a Safe Water Station. In the Preparation Module, community funds will be collected, an operator will be selected, a source and intake will be put in place, pumping and electrical connections will be completed, civil works will be completed, and the treatment works will be selected and ordered.

Figure 1: The Screening Module – Step One in the Safe Water Station Initiation Phase



SCREENING MODULE TOOL 1

Village Quick Review Form

PURPOSE

Safe Water Stations provide a solution to critical shortages of clean drinking water and major health problems in communities. Many villages experience widespread and debilitating diarrhea in children and adults. But, a Safe Water Station cannot be installed in every village. Several basic criteria must be met for a Safe Water Station to be successful. These are listed below:

1. The population of the village should be more than 4000 people or there should be over 800 households in the village to ensure an adequate market size;
2. These 4000 people or 800 households should be in a village or a cluster of villages within a 3 kilometer radius of a potential location for the station to provide a reasonable expectation of market share for the Station;
3. A flow of water – either on the surface or underground – should be available year around near the center of the 3 kilometer circle to ensure daily provision of product to customers;
4. The village must not be currently served by a water station to allow optimal quality control;
5. Approximately 300 square meters of open land should be available that the community or local government controls as one way of legally establishing their commitment to the station; and
6. Three phase and single phase electricity must be consistently available day and night and throughout the year to ensure daily delivery and the durability of equipment.

Tool 1 is to be used to establish whether a Safe Water Station is an appropriate and viable solution to critical water-related issues in a village. This tool guides the collection of basic information on the existing conditions of a village and provides a baseline description of conditions that a Safe Water Station can be installed to address.

AUDIENCE

This tool is for use by agencies/organizations that are actively looking to identify villages or clusters of villages of sufficient size and with adequate services and resources to support installation, local operation, and commercial viability of a Safe Water Station.

PRE-REQUISITES

Before this tool can be used, the agency/organization must have a comprehensive understanding of the national and local laws and regulations that govern water source usage and drinking water provision. In reviewing these documents, the agency/organization must identify the laws and regulations that relate to the operation of a Safe Water Station and then proceed to develop the Station in conformance with them.

When this general applicability of the Station is confirmed, the agency/organization is ready to identify a set of viable villages or communities where the water and health needs are significant and the agency/organization has some form of relationship that has created trust in the village or community. In addition, agency/organization staff should have a broad understanding of interviewing techniques and an appreciation for the technical and financial operations of a Safe Water System: (1) secure space is required, (2) reliable electricity is necessary, (3) the technology is not simple but it is robust, and (4) Safe Water Stations are best operated by community members on a commercial basis.

MATERIALS NEEDED

This Tool is to be used for the first information-gathering effort made by the agency/organization in screening potential locations for Safe Water Stations. The key criteria being examined are listed above, and the information in the tool can be collected through key informant interviews, focus group discussions, or by discussions with the leaders and members of active community-based organizations.

MATERIALS CONTAINED IN THIS TOOL

The Tool is a one-page form on which uniform information can be recorded for multiple villages. The information compiled in the form for each village is compared against the 6 basic criteria listed above to decide whether or not the village or community is a potential location for the installation of a Safe Water Station.

HOW TO USE THE TOOL

To begin using the Tool, it should first be translated into the most appropriate local language. If possible, the local language version should then be translated back into English and compared with the original to ensure that an accurate translation was performed. After multiple villages are identified for "Quick Review", the agency/organization gathering information should print multiple copies of the translated document and review each information piece to be collected with the people who will participate in the information-gathering effort. Participants should have an affiliation with the agency/organization and understand the basic operations and requirements of a Safe Water Station. The following are the desired responses to each of the questions contained in the Tool:

- 1.a: If the population is greater than 4000, then installation of a Safe Water Station can be operationally and financially viable because this indicates that there exists a reasonable market size. The necessary answer to this question is "yes".
- 1.b: Often the exact population of a village is not known. Globally, and estimate of 5 people per household is a conservative estimate of the population if the number of households is known. Some countries specify different numbers, so the agency/organization should find out the number typically used in your country or location. This can often be found from a ministry of health or of public health. If the number of households is not known, then the number of households can be counted. Using our conservative estimate, 800 households is equal to 4000 people. If there are more than 800 households, then there is likely to be an adequate market size and installation of a Safe Water Station can be operationally and financially viable. The necessary answer to this question is "yes".
- 1.c and 1.d: Knowing the names and number of smaller community divisions provides an indication of the number of administrations or community leadership units that may need to be consulted if a Safe Water Station is planned and another view of the potential market size for the Station and a system of drinking water distribution. Responses to this question also provide an indication of how well structured and defined the community is. The more specific answers provided to the questions, the more likely is the community to know its boundaries, organization, and leaders and therefore will likely be more straightforward to work with.
- 2.a: Cholera, typhoid, and most diarrhea are caused by bacteria which can be rather easily removed from water sources by multiple forms of filtration. Jaundice is caused by a virus that may not be removed by sand filters but can be removed by reverse osmosis filters. Fluorosis is caused by a dissolved chemical in the water, will not be affected by sand filters, but can be removed by reverse osmosis filters. The responses provided to this question will impact the decision on viable technologies for installation in the Safe Water Station and therefore the expertise required and cost of operation. If bacterial diseases are the most critical, then a sand filter would be appropriate. If non-bacterial diseases are of importance, then a reverse osmosis system would be the best option.
- 2.b: A sketched map of water sources will be an important reference tool if a Safe Water Station is planned. In addition, all documentation available from the community or the appropriate office of

the local government will be very helpful in determining the estimated cost and most appropriate technology for the Safe Water Station. A complete description of existing water sources will be important in deciding where to locate the Station if other information indicate that it is viable, and it will be critical to know which water sources provide water all through the year. These may be the only ones that should be used by a Safe Water Station.

- 3: Electricity, space, and a reliable water source are three critical elements of a Safe Water Station. Single-phase electricity is what people normally have in their house. We generally talk about household electrical service as single-phase, 120-volt AC service. Although single-phase power is more prevalent today, three phase is still the power of choice for many different types of applications. Generators at power stations supply three-phase electricity is a more consistent electrical power that allows machines to run more efficiently and last many years longer than their relative machines running on the other phases. Three phase is a common method of electric power transmission which is then converted to single-phase as an input to household users. The technologies in Safe Water Stations typically run on single-phase electricity, so it needs to be consistently available and affordable.
- 3.a through 3.d: Responses to these questions will indicate the viability of a Safe Water Station. The Station cannot tolerate lapses in the availability of electricity, and if the electrical supply is intermittent severe damage can be caused to equipment resulting in significantly higher operating costs.
- 3.e through 3.g: In addition to electricity, a Safe Water Station requires a secure building and a reliable water source. If either the community or an entrepreneurial member of the community makes land, a building, and/or a water source available, this would be a great advantage to reducing the initiation costs of the Safe Water Station. It is not necessary that these be contributed at no cost, but each will be needed for the Safe Water Station.
- 4.a: It is useful to identify early in village analysis if there is or is not a history of commercial drinking water sales in the village. If there is no history – or a reluctance to pay for any drinking water – then introduction of a Safe Water Station should be expected to be more difficult. If there is a history of community members paying for water, then some basic information should be collected at this "Quick Review" step including the price paid for water and the name, contact, and location of the water sellers. More detail would then be collected on these operations during the next steps of screening for the viability of a Safe Water Station.

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Village Quick Review Form

VILLAGE NAME: BLOCK: DISTRICT: STATE: DATE:

1. Socio-economic information						
1.a Is the village population greater than 4000?					Yes	No
1.b Does the village have more than 800 households?					Yes	No
1.c How many smaller communities (e.g. hamlets) are there in the village?						
1.d For each smaller community, provide the following information on an attached piece of paper:						
Name	**Distance from village center**		**Population**	**Number of households**		
2. Health information						
2.a Do village leaders or health officials identify the following as priority problems:						
Diarrhea	Yes	No	**Fluorosis**		Yes	No
Cholera	Yes	No	**Jaundice**		Yes	No
Typhoid	Yes	No	**Others**			
2.b Drinking water sources						
Draw and attach a map of the area highlighting all water sources						
Dug well					Yes	No
Borewell					Yes	No
Provide information on depth (bore and water), soil strata, yield, casing, age, management system						
Surface source					Yes	No
Does the source provide water all year?					Yes	No
3. Technical Information						
3.a How many hours each day is single phase electricity available?					hours	
3.b What is the cost of single phase electricity?					US$ equivalent/kilowatt	
3.c How many hours each day is three phase electricity available?					hours	
3.d What is the cost of a new single phase electricity connection?					US$	
3.e Would the community or an entrepreneur contribute 300 square meters of land?					Yes	No
3.f Would the community or an entrepreneur contribute a 15' x 20' building?					Yes	No
3.g Would the community or an entrepreneur contribute a bore well?					Yes	No
4. Social Information						
4.a Experience with water selling						
What is the price of water in the community or a nearby community?					US$ equivalent/	Liters
Is there willingness to buy safe drinking water at 2 US cents equivalent/20 Liters					Yes	No
Is there an existing water entrepreneur in the community?					Yes	No
If yes, provide name, contact information, and location of sales point(s)						
4.b Active NGOs and community organizations						
For active community organizations provide the following information on an attached piece of paper						
Name	**Areas of focus**		**Leader**	**Contacts**		

PERSON PROVIDING INFORMATION AGENCY/ORGANIZATION REPRESENTATIVE

SCREENING MODULE TOOL 2
Village Partner Analysis Form

PURPOSE

Once analysis of the information compiled on the Village Quick Review Form (Screening Module Tool 1) establishes that an identified village or cluster of villages provides adequate market size and capacity for a Safe Water Station, but before conducting a detailed analysis and introduction of the Safe Water System to local stakeholders, the agency/organization must identify a partner to work with in the village. Using Tool 2, the Village Partner Analysis Form, each village organization listed in section 4.b of the Village Quick Review Form is met with and core information is collected to compare organizations and select one to collaborate with in developing a Safe Water Station.

The Village Partner is a local entity that, along with the external agency/organization, helps in developing, constructing, operating, maintaining, and monitoring the Safe Water Station. The Village Partner also assists the agency/organization in profiling, screening, and selecting the villages where a Safe Water Station might be located. The Partner and the agency/organization discuss together the risks, issues, assumptions and constraints involved, and then they meet with community leaders to explain the importance of safe water to the community.

The Village Partner – whether an NGO or another organization - fills several critical functions for the Safe Water Station, and it will be responsible for the long-term, sustainable, and self-reliant operation of the Station. After selection by the agency/organization and acceptance by the village, the main responsibilities of the Village Partner include:

- Establishing a close, working relationship with community members and leaders;
- Building awareness throughout the village through promotional activities;
- Guiding the villagers in the construction of the Safe Water Station;
- Training local youth in the operation and monitoring of the Safe Water Station;
- Supervising maintenance;
- Monitoring activities of the water committee;
- Conducting demand generation activities; and
- Planning and providing health and hygiene education.

In short, the Village Partner acts as a local supervising body to ensure smooth setup and running of the Safe Water Station. It is therefore very important to select the right Village Partner.

AUDIENCE

This Tool is for use by agencies/organizations that are looking to identify a partner with sufficient status in the community; a focus that is consistent with the objectives of a Safe Water Station; and the capacity to plan, finance, and operate a Safe Water Station.

PRE-REQUISITES

To most effectively use this tool, the agency/organization should satisfactorily complete Tool 1 of this Module and have concluded (1) that it is potentially commercially and socially viable to place a Safe Water Station in the selected village(s) and (2) that respected community organizations operate locally that includes a focus on drinking water, health, and/or market-based development improvements.

MATERIALS NEEDED

This Tool is designed for information-gathering to allow the agency/organization to evaluate potential owners and operators of Safe Water Stations. The key criteria used for the evaluation are referenced above. The information in the Tool is best collected in face-to-face meetings with leaders and members of the organizations identified in section 4.b of the Village Quick Review Form.

MATERIALS CONTAINED IN THIS TOOL

This Tool contains a series of questions and requests for information from candidate Village Partners. The questions and requests are quite specific, but they are structured to compile general background and supporting information that a professionally operated organization should have readily available and should not express hesitancy at sharing.

The Tool starts by gathering basic organizational data and information characterizing the legal status and reputation of the candidate Village Partner. Next, the Tool asks for organizational details that provide an indication of the operational capacity of the candidate Village Partner. A third section on Program Details assembles information on the mission of the candidate Partner and its record of achievement. Finally, the Tool requests submission of several documents which together establish the level of administration of the candidate Partner and the professionalism of its operation. Due to the relative sophistication of the technologies and operational requirements of a Safe Water Station, it is critical to have as a Village Partner and highly capable organization with a positive local track record of success.

HOW TO USE THE TOOL

As discussed before, it is very important to select the Village Partner carefully. Their taking on the preparation and operation of a Safe Water Station is a complex set of tasks that require a Village Partner to be a highly reputable, legally established organization capable of accepting international funds, collaboratively mobilizing the community, managing infrastructure, understanding business operations, and operate with financial and administrative transparency. The assessment criteria for a Village Partner are divided into three main categories - Credibility, Focus of Work, and Accolades. The information assembled when responding to the questions and requests in the Tool is used by the agency/organization to evaluate each candidate Partner across these three categories.

To ensure an open and documented evaluation process, the Tool includes a Village Partner Evaluation Form that is to be used by agency/organization evaluators to quantitative evaluate the information presented in the Village Partner Analysis Form. Considerations in providing scores relative to each category for each candidate Partner are presented below:

Credibility

Credibility of a village organization relies on two main components – trustworthiness and expertise. These components are evaluated using parameters such as:

1. Leadership profile;
2. Ethical background of the leaders, staff, and volunteers;
3. Number and nature of partnerships;
4. Financial turnover and record keeping;
5. Transparency in its financial transactions; and
6. Past experience and activities in the villages, performed individually or collectively.

Focus of Work

It is important for the Village Partner to understand the market and technical needs of a Safe Water Station and be committed to supporting its commercial functioning in the short- and long-terms. In this context, the focus of work for the Village Partner should be evaluated against four main parameters:

1. Extent of the candidate Partner's work relating directly to water, agriculture, livelihood generation, education, and/or health.
2. The work of the candidate Partner must demonstrate an encompassing community focus and grassroots development orientation among different communities including marginalized ethnic groups, the elderly, children, and women.
3. The work of the candidate Partner should have a geographical footprint that reaches a population of sufficient size to make a Safe Water Station a viable commercial enterprise.
4. The commitment of the candidate Partner to market-based, pro-poor approaches to addressing critical community needs.

Partnerships and Accolades

It is also important to review the government and donor relationships of the candidate Partner. Accolades to consider include any special recognition awarded to the candidate Partner. These may include certifications, awards, rewards, or special mention of the candidate Partner in media or by local leaders. The higher number of accolades received by the candidate, the better will be their credibility and trust.

Before final selection of a Village Partner, the following factors should be clearly discussed and agreed to between the candidate Partner and the agency or organization:

1. Any terms and/or conditions of working the Partner;
2. The Partner's expectations from the agency/organization; and
3. The flexibility required from the Partner and the agency/organization to complete the development, installation, and operation of the Safe Water Station.

Discussion with the village community on their expectations and difficulties, if any

Village Partner Analysis Form

SECTION I: BASIC INFORMATION

1. Name of the Organization:
2. Year of establishment (please attach documentary proof):
3. Key activities/issues that the organization has been addressing:
4. Contact Details (postal and email address, telephone, etc.):
5. Contact Person, Designation:
6. Legal Status (include copies of relevant certifications or documents):

Type of registration	
Date of registration	
Year of establishment	
Income Tax exemption	
Ability to receive foreign funds	

7. With which local or central government bodies is the Organization registered or listed?
8. Has the Organization ever been blacklisted by any government or non-government organization? If yes, give details:
9. Has the organization ever worked or interfaced with any unit of the public sector? If yes, give details of the nature, dates, and content:
10. Provide the names and contact information for any organizations – government or non-governmental – that you have worked closely with:
11. If the Organization has received donor funding, provide donor contact information, the duration of engagement, a description of the major work activities, and the work location

SECTION II: ORGANIZATIONAL DETAILS

12. Provide a diagram or description of the organizational structure
13. Describe and infrastructure or assets owned by the organization
14. Describe any infrastructure or assets hired or leased out by the organizations
15. Complete the following table to describe the organization's human resources:

People		**Details of time/duration of work**
Position	**Number**	
Total employees		
Full-time		
Part-time		
Consultants/visiting fellows		
Volunteers		

16. Provide in the table below the organization's annual budget for each of the last three years:

Year	Budget (US Dollars)	Source (s)	Percentage spent

SECTION III: PROGRAM DETAILS

17. Describe the programs implemented by your organization (complete this table on a separate piece of paper if required):

Name of Program	Year of Initiation	Geographic Coverage	Constituencies/ Groups Covered

18 Describe the following details for each program as a separate attachment: (objectives, approach, evaluation, impact).

19. What according to you are the strengths and limitations of your organization?

SECTION IV: DOCUMENTS TO BE SUBMITTED

20. Please provide the following documents:
    - i. Registration certificate
    - ii. Memorandum of association/trust deed
    - iii. Income tax registration and exemption certificate
    - iv. Registration certificate enabling receipt of foreign funds
    - v. List of board/governing body members with contact and occupation details
    - vi. Annual audited reports of the Organization for last three years
    - vii. Document of latest returns filed
    - viii. Activity reports/ Annual reports of the last three years
    - ix. Report of any external evaluation of the organization/program

Name of person filling this form, qualification, designation, address and contact details:

Signature, Place, Date

Village Partner Evaluation Form

EVALUATION CRITERIA	EVALUATION SCORE 0 = lowest 10 = highest	COMMENTS
CREDIBILITY		
FOCUS OF WORK		
PARTNERSHIPS AND ACCOLADES		
TOTAL SCORE		

NAME OF EVALUATOR

SIGNATURE OF EVALUATOR

DATE OF EVALUATION

SCREENING MODULE TOOL 3

First Village Meeting

PURPOSE

After a Village Partner has been selected using Tool 2, it is time for the agency/organization and the Village Partner to meet with village leaders and decision-makers to explain the concept and costs of a Safe Water Station. The Tools in this Module have been developed to shift control and ownership of decentralized Safe Water Stations to those most directly concerned with their long-term operation - communities and socially-engaged entrepreneurs. Therefore, it is critical that the community fully understand their obligations as well as those of the Village Partner and the agency/organization from the beginning of their collaboration. Community members must also clearly see value in the returns and benefits that they should expect from their investment in owning and operating a Safe Water Station. This Tool is designed to help accomplish these objectives.

The Meeting will be a failure and further discussion will be required if at the end of this First Village Meeting, community leaders do not clearly "buy in" to the concept of a Safe Water Station. Buy-in at this early stage will greatly increase the likelihood of self-reliant Station operation in the future. If the meeting is successful, then all should work together to plan and execute the Detailed Village Analysis supported by Tool 4.

AUDIENCE

This Tool is for use in collaboration by the agency/organization and the Village Partner to introduce their safe water partnership to the community, obtain community "buy in" to the introduction of a Safe Water Station, and prepare for the gathering of detailed community and natural resource information using Screening Module Tool 4.

PRE-REQUISITES

For the First Village Meeting to be successful, it will need to be well prepared under the leadership of the Village Partner with support provided by the agency/organization. As with any community meeting of this type, a venue will need to be identified and reserved, the people to be invited should be contacted, and all arrangements and invitations should be delivered well in advance of the meeting. Any capable Village Partner should be expected to be proficient in preparing for the meeting. Introductions of the agency/organization and the material presented in the Tool should provide the agenda for the Meeting.

MATERIALS NEEDED

The Village Partner should be expected to provide guidance on the general materials and resources typically needed to hold a community meeting. For the introduction of the Safe Water Station, the Village Partner and the agency/organization should agree on the best way to present the material contained in this Tool.

MATERIALS CONTAINED IN THIS TOOL

The Tool contains two items for use during the first meeting with the village leaders: (1) a Tool that introduces the planned topics to be discussed during the meeting and contains a graphic presentation showing how the responsibilities of the agency/organization, Village Partner, and community members fit together to provide benefits to the community and (2) a Tool that presents the estimated cost of the Safe Water Station, what inputs will be provided by the agency/organization and Village Partner, and what results should be expected from collaboration on the installation of a Safe Water Station.

HOW TO USE THE TOOL

This Tool should be used to guide and focus the discussion at the meeting with village leaders. The Tool should be used to establish a clear and shared understanding of *who* will be involved in establishing and operating the Safe Water Station, *what* will be expected of each collaborator on the effort, *why* a high level of community commitment is required, and *how* the effort will be financed and sustained.

The proposed agenda for the Meeting is presented in the Tool. The key points that should be raised under each agenda item are presented in the table below:

Agenda Item	Proposed Topics for Discussion
Water source and water quality	○ Purified water ensures safety of village and reduces illnesses ○ Purified water tastes good and stays fresh over longer periods ○ Food cooked in purified water tastes better ○ Reduced travel time and exertion to collect drinking water makes more water & family time available
Relationship between water, health, and prosperity	○ Drinking safe water results in less sick days and more working time to earn daily wages ○ Drinking safe water makes more school time possible for children ○ Drinking safe water improves health so money is saved by fewer doctor visits, clinic treatments, and medicines ○ There is no need to boil water from a Safe Water Station so money is saved from decreased fuel consumption ○ Operators, distributors, and others who contribute to the operation of Safe Water Station can earn income and improve their livelihood ○ Reliable, safe drinking water improves overall health and happiness of the village
Safe Water Station Committee structure	○ The Committee is the group of individuals who will make collective decisions, manage the finances, and address issues of the Safe Water Station ○ Committee members should be selected by villagers under the guidance of the Village Partner and the agency/organization ○ The Committee should be selected before work on the Safe Water Station is begun ○ The Committee should have a maximum of 10 members ○ At least 30% of the Committee members should be women ○ Each member should be assigned specific roles and responsibilities ○ One of the members should act as the Committee President ○ The village head and/or a member of the local government should be honorary members of the Committee ○ The Safe Water Committee should be representative of the population of the village. It should have representation from each ethnic group, gender, and other village groups ○ The Safe Water Committee will serve as the principle contact with local government
Safe Water Station management and cost of water	○ A Safe Water Station provides better water at an affordable cost ○ Cost of Safe Water Station water will be at least 50% lower than water currently purchased from private vendors ○ Income from sales of water will pay for operating the Safe Water Station, and repaying an investment loan, and generate income for the operator
Project cost and financial responsibilities	○ The community is asked to contribute land, building, water source, and electricity connection and use ○ Operation could be by a community group or by an entrepreneur ○ Agency/organization will provide loan to community to cover construction of Safe Water Station, purchase and installation of treatment works, and equipment and materials to initiate drinking water supply and delivery ○ Community group or entrepreneur will collect money from sales of water to pay for operating costs, salary of operators, maintenance and repair, and repayment of loan

First Village Meeting

Introducing a Safe Water Station

Agenda of Meeting
Water source and water quality
Relationship between water and health
Safe Water Station Committee structure
Safe Water Station management and cost of water
Project cost and financial responsibilities

safe water network

First Village Meeting

Financing a Safe Water Station





OUR ESTIMATED FINANCIAL INVESTMENT	
DESCRIPTION	**AMOUNT (US$ equivalent)**
1000 Liters per day water treatment plant	11,500
Plant and water supply installation	6,500
Building, land, and bore well	3,000
Building renovation	2,000
Electrical, 2,500 liter water tank, pump, piping, etc.	1,000
Water distribution vehicle	7,500
500 water jars	2,000
TOTAL	**33,500**
Training, Materials, and Education	

YOUR ESTIMATED INVESTMENT
DESCRIPTION
Community management
Daily operation
Maintenance and upkeep
Local control of revenue

YOUR EXPECTED RETURN
DESCRIPTION
Improved family health
Local use of revenue
Repayment of financial investment
Sustainable, reliable, safe drinking water

SCREENING MODULE TOOL 4

Detailed Village Analysis Form

PURPOSE

With a Village Partner selected using Tool 2 and the first village meeting completed using Tool 3, the agency/organization and the Village Partner can begin to gather the detailed information that is required to design, cost, and organizationally prepare for the installation of a Safe Water Station. The Station is a technologically sophisticated operation that requires adequate space, services, and talent for operation. In order to legally provide drinking water to a population, the Safe Water Station needs government endorsement and a formalized committee to make decisions and manage funds. To prepare for these needs, it is necessary for the community, the Village Partner, and the agency/organization to work together to collect detailed information on demographics, village structure, and water resources. The Detailed Village Analysis Form, Screening Module Tool 4, is designed to guide the collection of this information.

AUDIENCE

This Tool is for use in collaboration by the agency/organization and the Village Partner to gather critical information in a structured and consistent format. The expected sources of each item of information are included in the Tool.

PRE-REQUISITES

Before using the Detailed Village Analysis Form, the agency/organization and the Village Partner should review each item of information to be collected and confirm the way in which and from whom the information will be collected. Then the partners should work together to establish a timeline and action plan for gathering the required information.

MATERIALS NEEDED

In addition to copies of the form to take to the field, the agency/organization and the Village Partner will need to take with them (1) a portable water quality measuring device that can quantify Total Dissolved Solids (TDS) and pH of water sources in the field and (2) an accurate device to geo-locate village features using a global positions system (GPS) that identifies longitude and latitude of points in the community.

MATERIALS CONTAINED IN THIS TOOL

The Tool contains a form consisting of three items: (1) an itemized list of the information to be collected, (2) suggested sources from whom or by whom each piece of information might be obtained, and (3) a blank column for the agency/organization and the Village Partner to provide the information requested.

The tool is organized into four sections to gather specific information on (1) the proposed location of the Safe Water Station, (2) demographics of the village(s) which would be served by the Safe Water Station, (3) a profile of available water resources, and (4) information on the early demonstration of community participation in support of the Safe Water Station.

Location information is collected to ensure that references to the village and its nearby villages are technically accurate and consistent with official records. Demographic information builds on the village map created during use of Tool 1. Using the Detailed Village Analysis Form, more specific information is collected which will help understand the potential water market and the preparation of the Safe Water Station including village population, sources and amount of income, livelihoods of people, land holding, water-related health priorities, and surrounding villages and hamlets. Surrounding villages are included because in

the Safe Water Station operations water can be distributed to nearby villages in an extended market to generate demand and additional revenue for deliverers and the Safe Water Station.

Information on water resources is gathered to provide a deeper understanding of whether or not a Safe Water Station and its treatment technology can be used in the village and is the best option to meet the village's needs and challenges. This profiling is done to identify villages that already have piped water service or purification plants within the village and are therefore already part of a commercial market for drinking water. This step also identifies water source and water quality opportunities and challenges that direct technical choices during the preparation of a Safe Water Station.

Community participation information is gathered to identify the level of interest and commitment to the Safe Water Station that the community exhibits early in the process. Early demonstration of commitment is a strong indicator of localized demand for safe drinking water and of the continued involvement of the community in support of the Safe Water Station over time. This Profile is the most critical aspect of the Detailed Village Analysis Form as the success of the Safe Water Station depends on demonstrations of demand for the safe water product. Findings of this early investigation provide initial information on who yields power and what power they yield. For example, the level of activity and influence of local government, women's groups, self-help groups, youth groups, and other civic organization should be identified during use of this Tool. Gaining an understanding of these community dynamics will shed light on who can be expected to bring what to support the success of the Safe Water Station. And, the Form begins to identify ways in which cash and a cash economy operate in the village. A Safe Water Station is a commercial operation, so the issues of household finances and community financial management cannot be minimized. These will be core issues discussed during the Second Village Meeting described in Tool 5.

The Detailed Village Analysis Form cannot and should not be completed using information gathered from a single source. Opinions from various stakeholders should be recorded and analyzed to comprehensively understand the demand for and likely key players in establishing acceptance of the intervention. Alignment of stakeholders is necessary to ensure equitable distribution of water and representation from all sections of society.

Finally, guidance is provided below to help the agency/organization and the Village Partner interpret the responses provided to a few of the items requested. Most of the information is general in nature, and does not have a direct influence on the core viability of a Safe Water Station. However, certain items require specific criteria to be met that directly influence Station viability and operations. These are tabulated below:

Item	Criteria	Critical Information
Section II.a	Population	The population in the proposed village should be more than 4,000 people to create a market of sufficient size that operation of a Safe Water Station is viable
Section II.b	Location of proposed Safe Water Station	It is best if a maximum percentage of the population live within 0.5 kilometers of the proposed location of the Safe Water Station to provide nearly the entire population with convenient access to the Safe Water Station
Section II.c	Number of households willing to contribute to establishing a Safe Water Station with cash or labor	The number of household planning to use the Safe Water Station should be more than 800 to make a Safe Water Station viable
Section II.g	Name, size (population and/or number of households), and distance to nearby hamlets/villages	It is best if there are nearby population centers within a distance of 3 kilometers to support distribution opportunities to maximize the market size that can be serviced by the Stations and affiliated distributors
Section II.h/i/j	Three most important health issues	The priority health issues that best demonstrate the critical need for a Safe Water Station are diarrheal diseases, fluorosis, and joint pain
Section III.h	Distance of piped water source from proposed site of Safe Water Station	Villages that have nearby service from a piped water system may still be viable for installation of a Safe Water Station. Use of piped water typically indicates that water is purchased, and piped water is not necessarily either reliable or safe – improvements that a Safe Water Station is designed to provide.
Section III.l	Water quality of proposed water source for Safe Water Station	The proposed source will be measured in the field using a hand-held meter equipped with probes to accurately measure Total Dissolved Solids and pH to indicate salt content and status of pollution in the source respectively. Total Dissolved Solids should be below 2000 mg/liter and the pH should be between 6.5 and 8.5.
Section IV.d	Will the community assign a building to use as the Safe Water Station? If yes, what are the dimensions and location of the building?	A minimum are of 300 square feet comprised of 1 or 2 rooms is required for installation of a Safe Water Station

HOW TO USE THE TOOL

This Tool should be used to guide and focus the collection of information that is necessary to initiate the preparation of a Safe Water Station. Because the information collected in this form serves as the foundation of planning and construction, every effort must be made to collect information that is as accurate and complete as possible. Inaccurate or missing information will lead to unnecessary confusion and wasted time in the future as the Safe Water Station is constructed and put into operation.

Detailed Village Analysis Form

SECTION I: LOCATION

CRITERIA	INFORMATION			SOURCE OF INFORMATION
Village Name				Government records
Block Name				Government records
District Name				Government records
Province Name				Government records
State Name				Government records
GPS locations of important structures (center, market, school, others)	**Structure**	**Latitude**	**Longitude**	Village Partner, Agency/organization

SECTION II: DEMOGRAPHIC PROFILE

	CRITERIA	INFORMATION	SOURCE OF INFORMATION
a	**Population**		Census data from government records
			Current estimate from community leader/Village head
b	**Location of proposed Safe Water Station**		Community leader/Village head
c	**Number of households willing to contribute to establishing a Safe Water Station with cash or labor**		Community leader / Village head
d	**Source of livelihood and average household income from each**		Village Partner
e	**Average household land holding**		Village Partner
f	**Crops grown and number of harvests of each**		Village Partner
g	**Name, size (population and/or number of households), and distance to nearby hamlets/villages**		Village head / Village Partner
h	**Three most important health issues**		Village head
i	**Three most important health issues**		Village Partner
j	**Three most important**		Clinic staff/Community health

	health issues		worker

SECTION III: WATER-RELATED PROFILE

	CRITERIA	INFORMATION			SOURCE OF INFORMATION
a	**Current source(s) of drinking water**				Community leader/Village head/Village Partner
b	**Proposed water source for Safe Water Station**				Community leader/Village head
c	**Alternate dry season water source for Safe Water Station (if necessary)**				Community leader/Village head
d	**GPS locations of proposed water source and alternate dry season water source**	**Source**	**Latitude**	**Longitude**	
E	**Distance of water source from proposed site for Safe Water Station**				Community leader/Village head/Village partner
f	**Yield (liters per hour) of proposed water source for Safe Water Station**				Village Partner
g	**If proposed or alternate source is bore well, results of pump out test**				Village Partner
h	**Distance of piped water source from proposed site of Safe Water Station**				Village Partner
i	**Description, manufacturer, and capacity (liter per hour) of existing water treatment facility(s) in the village**				Village Partner
j	**Description, manufacturer, and capacity (liters per hour) of existing water treatment facility(s) in nearby villages**				Village Partner
k	**Price of water (US$ per described volume) of purchased water**				Village Partner
l	**Water quality of proposed water source for Safe Water Station**	Total Dissolved Solids (TDS)	pH		Measured in the field by agency/organization using portable measuring unit

m	**Is single phase electricity available near the proposed site of the Safe Water Station? If yes, for how many hours each day?**	Yes ____	No ____	Village Partner
		Hours per day _____		
n	**Is three phase electricity available near the proposed site of the Safe Water Station? If yes, for how many hours each day?**	Yes ____	No ____	Village Partner
		Hours per day _____		
o	**Distance from proposed site of the Safe Water Station to the nearest electricity meter**			Village Partner

SECTION IV: COMMUNITY PARTICIPATION PROFILE

	CRITERIA	INFORMATION			SOURCE OF INFORMATION
a	**Will the community assign a bore well or other water source for the exclusive use of the Safe Water Station? If yes, describe it.**	Yes ____	No ____		Community leader/Village head
		Description:			
		GPS location of water source	Latitude	Longitude	
b	**Will the community take responsibility for arranging and paying for electricity to the proposed site of the Safe Water Station?**	Yes ____	No ____		Community leader/Village head
		Comments:			
c	**What are the dimensions of clear ground area immediately around the proposed water source for the Safe Water Station?**				Village Partner
d	**Will the community assign a building to use as the Safe Water Station? If yes, what are the dimensions and location of the building?**	Yes ____	No ____		Community leader/Village head/Village Partner
		Dimensions:			
		GPS location of building	Latitude	Longitude	
e	**Will the community assign land to use to build a Safe Water Station? If yes, what are the dimensions and location of the land?**	Yes ____	No ____		Community leader/Village head/Village Partner
		Dimensions:			
		GPS location of land	Latitude	Longitude	
f	**How many households commit to purchase an individual water storage container at Rs 200 each?**				Village Partner

SCREENING MODULE TOOL 5

Second Village Meeting

PURPOSE

After detailed analysis of the village(s) is completed using Tool 4, it is time for the agency/organization and the Village Partner to meet with village leaders and decision-makers to turn the corner from analysis and information collection to preparing a Safe Water Station. The agenda for the Second Village Meeting is far-reaching as it will initiate formation of the organizational, legal, financial, and infrastructure obligations of each collaborating partner: the community, the Village Partner, and the agency/organization. The objectives of the meeting are fivefold, and Tool 5 is meant to guide the structure and content of the Meeting. Meeting objectives include

a. Presenting to the community the findings of the Detailed Village Analysis completed using Tool 4 to establish trust and share information needed for decision-making;
b. Agreeing on the membership and governance responsibilities of the Safe Water Station Committee;
c. Identifying what is needed to meet legal requirements for establishing a Safe Water Station;
d. Selecting a site, infrastructure, and a water source for the Safe Water Station;
e. Agreeing on the allocation of resources to cover the capital and operations costs of the proposed Safe Water Station; and
f. Action planning for the completion of near-term requirements to advance toward preparation of the Safe Water Station.

AUDIENCE

This Tool is for use in collaboration by the agency/organization and the Village Partner to organize and make decisions with community leaders regarding how to complete several actions that are necessary before advancing to the Preparation Module for a Safe Water Station.

PRE-REQUISITES

Similar to the First Village Meeting, this Meeting will need to be well prepared under the leadership of the Village Partner with support provided by the agency/organization. In addition, before this Meeting it is required that the agency/organization and the Village Partner have completed and analyzed the findings of the Detailed Village Analysis Form presented as Screening Module Tool 4. They should be ready to present the findings and the implications of the findings to the participants in the Second Village Meeting.

In preparing for the Second Village Meeting, the agency/organization and the Village Partner should plan on a lengthy meeting. Achieving all six objectives will require a significant investment of time. The duration of the Meeting should not be underestimated to allow sufficient time for clear discussion, thorough decision-making, serious negotiation, and detailed action planning.

Finally, in advance of this Meeting, the agency/organization and the Village Partner will need to review the list of items that are required for construction of the Safe Water Station and determine a cost estimate for completing the Safe Water Station based on local costs of the materials and equipment indicated in the table provided in Tool 3.

MATERIALS NEEDED

The Village Partner should be expected to provide guidance on the general materials and resources needed to hold a community meeting focused on discussion, decision-making, and action planning. For the presentation of the findings of the Detailed Village Analysis Form and developing the action plans to be created during the Second Village Meeting, the Village Partner and the agency/organization should agree on the best way to present the material and facilitate the action planning.

MATERIALS CONTAINED IN THIS TOOL

This Tool contains 4 pieces that will finalize the agency/organization, Village Partner, and community effort at collecting, analyzing, and sharing information. First, the Tool contains the basic information needed to conduct a discussion with the community on how to establish the governance of a Safe Water Station Committee and what actions need to be taken to establish the legal license of the proposed Safe Water Station. Second, the Tool contains a table of information to guide the decisions that need to be made to clearly establish roles, responsibilities, and financial or in-kind commitments from the agency/organization, Village Partner, and community. This table is at its core about allocating resources – human and financial – in ways that make the best use of the talents and available inputs from each partner. Finally, the Tool offers an example action plan and a template for preparing a 3-month action plan that are intended to guide collaboration among the partners to finalize the necessary steps that lead to the Preparatory Phase of establishing a Safe Water Station.

HOW TO USE THE TOOL

The agenda for the meeting is the first piece presented in the Tool. The key points that should be raised under each agenda item are presented in the table below:

Agenda Item	Proposed Topics for Discussion
Report of Findings from Detailed Village Analysis	○ Too often, information is extracted from communities or other sources and is never communicated back to them as a part of planning for their development. This first agenda item is intended to address this frequently-neglected step. ○ The Detailed Village Analysis Form is Tool 4. Representatives of the agency/organization and the Village Partner must work together in advance of the Second Community Meeting to prepare the ways in which they will present the findings of the analysis and use them to begin to clarify their relevance to the preparation and operation of the Safe Water Station. ○ This report to the community should be comprehensive, accurate, and honest. It should not be used to manipulate the community or hide possible problems. Relations between external organizations and communities begin with honesty and respect and lead to collaboration, joint problem solving, and the strengthening of local capacity.
Safe Water Station Committee member selection	○ Beginning at the Third Village Meeting, decisions will need to be made, responsible parties will need to lead actions, and resources will need to be managed. None of this should move forward without the establishment and organization of a dedicated Committee that equitably represents the community. ○ The Tool presents 5 necessary aspects of the Committee's membership and should be used as a starting point for selecting members. ○ The functions and responsibilities of the Committee will be discussed and agreed to in detail at the Third Village Meeting described in Tool 6
Establish Legal Status of Safe Water Station	○ Depending on local laws, regulations, and politics, the local government will play a variety of roles in permitting and endorsing the installation of a Safe Water Station ○ At the Second Village Meeting, agreement should be reached on the necessary and appropriate ways to engage and register with local government so the preparation and operation of the Safe Water Station will be legal and a positive service to both the community and local government.

	○ As part of formalizing the Safe Water Station, the Safe Water Network highly recommends including an agreement among the partners that the Safe Water Station would be the exclusive safe drinking water provider to the community for at least 5 years. This provides ample time for the Station operators to meet the demand and economic requirements of the community while also repaying the capital investment loan and establishing an income stream.
Selection of Safe Water Station site and Infrastructure	○ The third piece of this Tool is too be used as a negotiating and documenting form for the commitments made by government, the community, and the agency/organization to provide the human and/or financial resources to complete each portion of the installation, ownership, and operation of the Safe Water Station. ○ The top portion of the table needs to be completed during this Meeting. It will document the agreement on the two core aspects of the Safe Water Station: its location and its source of water – and therefore guide the selection of infrastructure investment required.
Agreeing on cost and financial responsibilities	○ During this portion of the meeting, the lower section of the table should be filled out to document agreements regarding the contributions of each partner to meet the resource needs of the Station. ○ If desired, the table provided in the Tool can be used as the basis of a Memorandum of Understanding to formalize the commitments of each partner.
Developing a 3-month Action Plan	○ A template is provided for the partners to work together to identify, assign, and examine the needs of each next step that must be completed before beginning the preparation of the Safe Water Station

Second Village Meeting
Governance of a Safe Water Station





Agenda of Meeting
Report of Findings from Detailed Village Analysis
Safe Water Station Committee member selection
Establish legal status of Safe Water Station
Selection of Safe Water Station site and infrastructure
Agreeing on cost and financial responsibilities
Developing a 3-month action plan

- Total Strength – 10 members
- President – Village Head or local government representative
- 6 – 8 members representing all ethnic and wealth sections of the community
- At least 3 women members
- Identification of compulsory representatives

Safe Water Station Committee member selection

- Consent for community to set up a Safe Water Station
- Permit the abstraction/use of groundwater from a bore well
- Approve decentralized, commercial, equitable, and affordable provision of safe drinking water
- Concurrence with 5- year exclusive operation of Safe Water Station

Government endorsement of Safe Water Station

Second Village Meeting

Financial or In-kind Commitments to a Safe Water Station

INFRASTRUCTURE INVESTMENT COMMITMENTS			
Proposed site for Safe Water Station:	**Description:**		
	GPS Coordinates	**Latitude**	**Longitude**
Proposed water source(s) for Safe Water Station:	**Description:**		
	GPS Coordinates	**Latitude**	**Longitude**

DESCRIPTION	LOCAL AMOUNT (US$)	COST COVERAGE BY		
		AGENCY/ ORGANIZATION	COMMUNITY	GOVERNMENT
1000 liters per day water treatment plant				
Plant and water supply installation				
Building				
Land				
Bore well				
Building renovation				
Electrical connection, ,				
2,500 liter water tank				
Pump, piping, etc.				
Water distribution vehicle				
500 water jars				
TOTAL				
Training, Materials, and Education				
Electricity operation				
Plant maintenance				
Water quality testing				
Plant repair				
Operator salary(s)				
Capital cost loan				
Capital cost loan repayment				

Second Village Meeting

Action Planning for a Safe Water Station

3-month Action Plan – Next Steps Toward Preparing a Safe Water Station (example)														
Action	**Responsible**	**Resources Needed**	**Week**											
			1	2	3	4	5	6	7	8	9	10	11	12
Prepare Third Village Meeting	Village Partner	Safe Water Station Committee established												
Obtain government endorsement of Safe Water Station	Village Partner	Transportation												
Hold Third Village Meeting		Venue, agenda, Module 1/Tool 6												
Other														
Other														
Other														
Other														

SCREENING MODULE TOOL 6

Third Village Meeting

PURPOSE

The purpose of Screening Module Tool 6 is to provide core information necessary to finalize the structure, function, and responsibilities of the Safe Water Station Committee. The Tool is intended to organize and stimulate a discussion that leads to the documentation of an agreement to the Committee operations at the end of the Meeting.

AUDIENCE

This Tool is for use in collaboration by the agency/organization and the Village Partner to work with a broad range of governmental and community stakeholders to capture and put in writing the Committee operations and responsibilities.

PRE-REQUISITES

Similar to the all village meetings, this Meeting will need to be well prepared under the leadership of the Village Partner with support provided by the agency/organization. These leaders must come to the meeting with a full understanding of the potential roles, organization, and membership of the Committee so that they will be prepared to facilitate the Meeting to a successful and purposeful conclusion.

MATERIALS NEEDED

The Village Partner should be prepared to lead the definition of the Safe Water Station Committee functions with examples of how such organizations need to operate to professionally communicate information, collectively make decisions, and transparently manage financial resources.

MATERIALS CONTAINED IN THIS TOOL

This Tool contains material intended to introduce the basic framework, structure, and responsibilities of the Safe Water Station Committee so that Meeting participants can finalize each item in ways that are consistent with governmental requirements and community norms. The Tool also introduces the key items involved in comprehensive financial management of a Safe Water Station. These requirements cannot be over-emphasized, and it is critical that this Meeting generate agreed upon procedures for transparent and accountable fund management addressing each item in the Tool.

HOW TO USE THE TOOL

This Tool should be used to introduce the core functions, structure, and responsibilities of the members of the Safe Water Committee. The functions and their distribution across members should only be changed after serious consideration by all Meeting participants. They are presented in the Tool as examples of the basic items which must be dealt with by any Safe Water Station Committee. But, the Tool should be used to generate discussion and additions to the basic items presented. The final functions, structure, and responsibilities that emerge from this Meeting must reflect the desires and capacities of the community while maintaining the absolute integrity of the Committee's operations.

Third Village Meeting

Establishing a Safe Water Station Committee

Functions of a Safe Water Station Committee

Head

- Monitoring and supervising the working of the Safe Water Station
- Ensuring daily cash deposit from sales
- Convening and chairing monthly meetings
- Promoting demand generation

Member

- Taking collective decisions and address the issues of the Safe Water Station
- Village head and local government representative should be honorary members of the Committee

Community Member

- Mobilizing villagers in the local communities
- Collecting funds for civil works

Operator

- Operating, maintaining, and monitoring the Safe Water Station
- Documenting daily and monthly maintenance of accounts and reports on the operation of the Safe Water Station
- Maintaining the cleanliness of the Safe Water Station
- Promoting demand generation

Financial Management

Collect funds through villagers, entrepreneurs, banks, microfinance organizations
Accounting of funds collected and spent for reporting to the Committee
Deposit funds in bank account
Pay for needed operational costs and maintenance
Repay loan for infrastructure capital investment

Introduction to the Purify Module

After using each Tool in the Purification Module, all agreements will be in place with the Operator, all parts of the physical structure of the Safe Water Station will be in place, and the Safe Water Station will be ready for testing and operation. The Module contains 6 Tools that further build community ownership of the Safe Water Station, establish the legal management of the Station, guide the installation and construction of the Station, and prepare the Station Supervisor with the skills necessary to operate the Station.

Using the first Tool, Tool 9, the agency / organization will work with the Village Partner to guide the community through choosing their preferred management structure for the Safe Water Station. They will collaboratively weight the strengths and challenges of both the Community-managed and the Entrepreneur-managed models of operation and choose the one that will work best in their community. With this decision in place, they will begin taking the necessary steps to establish a community system or solicit interest from entrepreneurs.

Tool 10 guides the Safe Water Station partners through three critical steps in establishing the legitimacy of the Safe Water Station. The first is necessary only if the community decides that it will support an individual entrepreneur to operate the Safe Water Station. It is a rigorous Tool by which a Safe Water Committee and evaluate the competency and reputation of an entrepreneur to conclude which entrepreneur is best suited to operate the Safe Water Station on behalf of the Safe Water Committee. The second is very important as it establishes and documents the contribution of the local government to the establishment of the Safe Water Station. Typically, the local government must approve of the location of the Station, grant permission for the Station to access a dedicated water source, and participate in promoting the use of the Safe Water Station by all citizens in the community irrespective of color, caste, sexual orientation, or creed. After completing the third step, the Safe Water Committee will have formalized the most important part of the financial oversight of the Safe Water Station. They will have established a bank account with responsible signatories for the collection and safe storage of money collected from the sale of water by the Safe Water Station.

Use of Tool 11 will formalize the roles and responsibilities of the Safe Water Station Operator – either the Safe Water Committee or an entrepreneur – in the form of a detailed Memorandum of Understanding. Models are presented that can be used to reach agreements under either type of management structure.

Tools 12 and 13 guide the Safe Water Station partners through the installation of the physical infrastructure and improvements needed to secure a dedicated water source and to establish a clean and safe building to serve as the Safe Water Station. Tool 12 focuses on the rigor needed to install a bore well to serve the Station. Tool 13 provides technical guidance in how to ensure that the Safe Water Station is constructed to result in a pleasant, safe, and professionally completed facility.

Tool 14 presents a checklist that can be followed to identify when the Station Supervisor is ready to run the Safe Water Station and to check up on the quality of her or his performance over time.

In the Safe Water Network's experience, the tasks in the Purification Module can be completed in 60 days. The Tools on the following pages and the expected outcomes from the use of each are introduced in Figure 1. In this Module, the tools are organized sequentially and should be used to move the team toward the exciting day of inaugurating the Safe Water Station in the community.

Figure 1: The Tools in the Purify Module of the Safe Water Station Local Operating Unit

The Safe Water Station Local Operating Unit

screening > community > 

Tool Kit Modules →	
Purify Module Tools:	Outcome
9. Fourth Village Meeting	**Community-wide understanding of the findings of water quality analysis in the community and their implications for health** **Selecting either community-led or entrepreneur-led management of the Safe Water Station**
10. Closing with an Operator	**Identifying an Operator from all candidates** **Obtaining local government support for the needs of the Safe Water Station** **Establishing a Safe Water Committee bank account**
11. Signing a Memorandum of Understanding	**Formal agreement between all Safe Water Station partners and the Operator of the Station**
12. Bore well installation	**Installing and testing the water supply to serve the Safe Water Station with treatable, reliable, and sustainable water**
13. Civil Works Planning	**Completing a well-designed and constructed Safe Water Station ready for operation**
14. Choosing a Station Supervisor	**Equipping the Safe Water Station with a skilled Supervisor prepared to operate and maintain the Station and educate the community on the benefits of purchasing safe drinking water**

PURIFY MODULE: TOOL 9

Fourth Village Meeting

PURPOSE

The end of the meeting should achieve the following outcomes:

- A shared understanding between the Safe Water Station partners and the community regarding the quality of the water in the area and the risks it presents to their health;
- The community should understand that safe drinking water is essential for their good health and that making and delivering safe drinking water will come at a cost to them;
- The village leader and local government will endorse the installation of a Safe Water Station and will sign a resolution describing their support and what they will allow;
- The management model is finalized. Either the community or an entrepreneur will be identified as the Operator;
- The selected Operator will contribute to the civil works so that the building that will house the Safe Water Station can be constructed or renovated
- The water source is identified and plans for installation of a supply are initiated; and
- Electricity quality and availability is recorded to guide selection of the appropriate water treatment plant and accessories.

AUDIENCE

This Tool is for use by agencies / organizations and their Village Partners that have selected a community(s) where a Safe Water Station can be installed and a Safe Water Committee is in operation. The Safe Water Committee becomes a key part of the audience beginning with this Tool. The agency / organization, Village Partner, and Safe Water Committee together form the Safe Water Station partners who will lead all decisions and actions from this point in development of the Safe Water Station onward.

PRE-REQUISITES

Before this Tool can be used, the agency / organization must have measured and analyzed the water quality from the planned water source as per the requirements of Tool 8. The agency / organization should compare the water quality with the 9 key drinking water quality parameters and determine if the water source meets national and WHO allowable values. Before the Fourth Village Meeting, the Safe Water Station partners should collaboratively review the findings from the water quality analysis and prepare how they will present the findings to the community in ways that will help them decide whether the water source is good, water treatment will be needed, and what form of management can best provide the treatment and operate the Safe Water Station.

Before the Meeting the partners should share a high level of understanding of the two management options for the Safe Water Station. Safe Water Stations are operated in either the **community-led model** under the complete management of villagers, or through an **entrepreneur model** under management by an individual or group of individuals. Both these models operate under a locally written resolution signed by the village head and/or local government for bringing equitable and affordable safe drinking water to the entire village. The Safe Water Committee ultimately supervises both.

The community model is based on financial commitments from each household in the village / contributions by self-help groups and various other groups. The village head or local government also usually funds this model. In the entrepreneur model, an individual or a group of individuals finance the infrastructure for setup of the Safe Water Station and operate and maintain the Station.

Before the Fourth Village Meeting, it will probably be helpful to hold a separate meeting with formal and informal leaders of the community. Village elders or representatives of local government need to understand and be ready to talk about how the Safe Water Station is for them and their good health. These leaders should also understand the operation of both the community-led and the entrepreneur-led management models. Leaders of local government should also be made aware that their participation on the Safe Water Committee will be critical and that the community hopes for their help in signing a formal resolution in support of the operation of the Safe Water Station – including permitting access to the planned water supply.

All partners should understand that the decisions made in the Fourth Village Meeting will contribute greatly to the success or failure of the Safe Water Station. Selecting the best Operator is a critical decision. But, understanding the implication of the water quality analysis is equally critical. The water quality analysis will determine the treatment technology and the level of expertise required to operate the Safe Water Station. Driven by the need to turn source water of a given quality into high quality drinking water, the technologies in a Safe Water Station might include any or all of the following based on the source water quality and the capacity of the operator(s). These are listed in orders of magnitude of increasing complexity of operation and maintenance:

- Sand filter
- Carbon filter
- Micron filter
- Reverse Osmosis unit
- Ultraviolet (UV) disinfection treatment
- Residual Chlorination

MATERIALS NEEDED

Similar to all village meetings, this Meeting will need to be well prepared under the leadership of the Village Partner and the Safe Water Committee with support provided by the agency / organization. In addition, the Safe Water Station partners should review the requirements of the community-led and the entrepreneur-led management models for Safe Water Station operation. Before the meeting the partners should have a shared and clear understanding of the advantages and disadvantages of each model so that they can comprehensively present each to the community during the Fourth Village Meeting.

MATERIALS CONTAINED IN THIS TOOL

The Tool presents a draft agenda for this Fourth Village Meeting that will ensure that decisions are made to help advance the Safe Water Station on its incremental path toward inauguration. This Tool also contains two materials that may help guide the discussion of the meeting, the first should be adapted by the Safe Water Station partners to use to stimulate discussion to help the community understand and select between the two management models. The second is included to guide the open invitation of applicants interested in operating a Safe Water Station in the community and is intended to be adapted to serve either management model.

HOW TO USE THE TOOL

Following the agenda presented below will guide the audience through the use of each piece presented in this tool.

Agenda Item	Proposed Topics for Discussion
Report of findings from water quality analysis	○ Purified water ensures safety of village and reduces illnesses ○ Quantified condition of existing water source(s) ○ Discussion of health implication of each of the 9 key drinking water quality parameters ○ Discussion of the drinking water quality procedures that will be followed by the Safe Water Station ○ Proposal to the Meeting on the proposed water source for the Safe Water Station
Approval of Safe Water Station water source	○ Consensus from Meeting attendees supporting the selection of the proposed water source for the Safe Water Station ○ Listing of what needs to be done, who will complete each action, and when each action will be completed to secure the Station's exclusive use of the water source
Select management model for the Safe Water Station	○ Remind all there will be no free water from the Safe Water Station. Income from sales of water will pay for operating the Safe Water Station, and repaying an investment loan, and generate income for the operator ○ Review of the responsibilities of the Safe Water Station Operator to the community as discussed during earlier Village Meetings 1. A good Operator can change our lives ○ Drinking safe water results in less sick days and more working time to earn daily wages – a good ○ Drinking safe water makes more school time possible for children ○ Drinking safe water improves health so money is saved by fewer doctor visits, clinic treatments, and medicines 2. Operators can earn income and improve their livelihood 3. A good Operator can change our entire community ○ Reliable, safe drinking water improves overall health and happiness of the village 4. Either a community-led or an entrepreneur-led Safe Water Station will still be supervised by the Safe Water Committee ○ Operation of the Safe Water Station can be in one of two ways 1. The community can collectively operate the Safe Water Station. In this approach the Safe Water Committee selects and Operator and a Station Accountant who will be trained by the organization/agency, OR 2. The Committee can accept applications from private entrepreneurs to operate the Safe Water Station and maintain the accounts 3. In either way, the timings of opening and closing of the Safe Water Station, the cost of water, oversight of the funds into and out of the Station, and other major decisions will be taken by the Committee ○ Emphasize that the Operator will not do all the work moving forward. Local contribution toward the civil works is necessary to maintain hygienic & efficient functioning of Safe Water Station ○ Encourage villagers to ask questions and answer their questions in detail to help them build trust in the Safe Water Station and the Safe Water Station partners
Prepare advertisement for Operator applications	○ If the entrepreneur model is chosen, applications are invited from individuals to operate and maintain the Safe Water Station. The invitations can be advertised in any way that is useful to the Safe Water Station partners. At this Meeting, a decision must be made on how applications will be invited, where applications can be submitted, and what an application should contain. A sample advertisement is presented in Tool 9, and a process for evaluating and choosing an entrepreneur is contained in Tool 10.

Picture 1: Wall Postings inviting interested candidates to apply for Safe Water Station management in India

Picture 2: Electrolyser Test being conducted in the villages

Fourth Village Meeting

Choosing a Model for Operating a Safe Water Station

Agenda of Meeting
Report of Findings from water quality analysis
Approval of Safe Water Station water source
Select management model for Safe Water Station
Prepare advertisement for Operator applications

1. Safe Drinking water ensures good health, better life, and reduction in daily medical expenditure
2. Village Partner and agency / organization will meet with villagers to promote the benefits of drinking clean, safe water.
3. Village Partner, agency / organization, and Operator will conduct health and hygiene awareness activities

The Health Story from a Safe Water Station

1. A Safe Water Station Operator can generate income up to about US$90-100 / month from water sales
2. All operating costs must be covered by income from water sales
3. Ownership of the Safe Water Station can be achieved when the Operator repays the initial capital investment in setting up the Safe Water Station

The Profit Story from a Safe Water Station

Achieving both needs support from the community and the Operator

Sample Newspaper advertisement for Entrepreneur management of Safe Water Station

Operating Safe Water Station in villages – Request for Application

[VILLAGE PARTNER] invites application of behalf of [AGENCY/ORGANIZATION] and the local Safe Water Committee to establish and operate a commercial Safe Water Station to provide drinking water to villages in [BLOCK] in [DISTRICT] of [STATE].

We invite proposals from individuals from those villages. The Operator will be required to provide 300 sq.m. land, a building of at least 28 sq.m. and 1 or 2 rooms, and a continuous electricity connection. The [AGENCY / ORGANIZATION] will provide a reliable water source and any treatment systems that are necessary through an advance payment that the Operator will repay in order to fully own the facility. These funds can be applied toward the cost of civil works for the building that will house the Safe Water Station. The individual will work under the guidelines of the local Safe Water Station Committee.

The application form can be collected, free of cost, from [VILLAGE PARTNER] office at [LOCATION].

Contact: [NAME] [MOBILE PHONE NUMBER]

safe water network

Entrepreneur Application Form for Operating a Safe Water Station

SECTION I: PERSONAL DETAILS

Name of Applicant								
Name of Company (if any)								
Title (tick one)	Mr.		Mrs.		Miss		Dr.	
Gender (tick one)	Male				Female			
Date of Birth (DD/MM/YYYY)								
Place of Birth								
Highest Education Qualification								

SECTION II: WATER MARKET TO COVER FROM SAFE WATER STATION

a	**Village Name(s)**			
b	**Block(s)**			
c	**District**			
d	**State**			
e	**Total Households**			
f	**Total Population**			
g	**Livelihood Sources**	**Source**	**Number of People**	**Percent of Population**
		Agriculture		
		Livestock raising		
		Construction/Labor		
		Other (please specify)		
h	**Average monthly income per household**	US$ equivalent		
i	**Name of village head**			
j	**Names of community groups**			
k	**Names of public health centers**			
l	**Names of schools**			

SECTION III: WATER SITUATION

a	**Drinking water sources** (please provide the number)	Open well		Hand pump	
		Bore well		Surface water	
b	**Water quality challenges** (tick those that you have)	Fluoride		Salinity	
		Arsenic		Other (please specify)	

SECTION IV: ELECTRICITY SUPPLY

a	**Number of hours each day electricity is available** (please put the number)					
b	**Electricity source** (please tick)	Single Phase			Three Phase	
c	**Do you control an electricity meter?**	Yes		No		If no, when will you install a meter?

SECTION V: YOUR CONTRIBUTION

a	**Land and building** (as per specifications)	Yes		No	
b	**Raw water source**	Yes		No	
		If yes, name the source:			
c	**Electricity connection**	Yes		No	
d	**Loan repayment for capital investment in Station?**	Yes		No	
e	**Local government resolution**	Yes		No	

SECTION VI: YOUR CONTACT DETAILS

a	**Residential address**				
b	**Mobile phone number**	Contact 1		Contact 2	
c	**Email address**				

Person Providing Information Date

Signature

PURIFY MODULE: TOOL 10

CLOSING WITH AN OPERATOR

PURPOSE

Once nominations have been received from interested parties, it is important to carefully select the right operator for the Safe Water Station, gather initially committed funds, and sign relevant legal documents with the Operator. It is also important to define roles and responsibilities of each of the partners during the construction, installation, launching, and operation of the Safe Water Station. Tool 10 is intended to result in the completion of all organizational processes need to construct and launch the Station. Use of Tool 10 will result in the following:

- Interviewing and selecting the Operator;
- Signing a Memorandum of Understanding (MoU) with the Operator;
- Placing funds into a bank account managed by the Safe Water Committee and dedicated to operation of the Safe Water Station; and
- Formalizing a resolution of responsibilities and support with local government.

AUDIENCE

This Tool is for use by agencies / organizations, Village Partners, and Safe Water Committees. This group, referred to as the Safe Water Station Partners, makes what may be the most important decision in determining the success of the Safe Water Station with the use of this Tool. If they choose a good Operator, the success of the Station is likely. Selecting a poor Operator will delay and possible fatally affect the complex steps that follow.

PRE-REQUISITES

During the Fourth Village Meeting, the Safe Water Committee was required to select between the community-led and entrepreneur-led management models for the Safe Water Station. If they selected the community-led model, then they are ready to move forward with establishing a Memorandum of Understanding for the next steps. If they selected the entrepreneur-led model, then they must use another part of this Tool, the Entrepreneur Analysis Form.

In addition, buy-in and support from the local government must be obtained before using this Tool. Without their clear commitment, it will be very difficult to enter into and adhere to the requirements of a Memorandum of Understanding. After the Memorandum of Understanding is signed, then partners will commit significant resources to establish the Safe Water Station. This expenditure of funds and effort must not happen without a written commitment by government that aligns the operation of the Safe Water Station with government policies, practices, laws, regulations, and authority.

MATERIALS NEEDED

Use of this Tool does not require significant materials. The Safe Water Station Partners must have in-hand applications from interested individuals if they are pursuing the entrepreneur-led management model for the Safe Water Station. If they are following the community-led management model, then they only need to have discussions schedules with appropriate government officials and access to a financial institution where the Safe Water Committee can open a bank account. This financial institution can be a bank, a microfinance institution, or any other secure, reliable, and proven controller of relatively small amounts of funds and providing both checking and savings services.

MATERIALS CONTAINED IN THIS TOOL

This Tool consists of three pieces: (1) Entrepreneur Analysis Form, (2) Local Government Checklist, and (3) Financial Checklist. The Entrepreneur Analysis Form is to be used only if the Safe Water Partners decided while using Tool 9 that they would follow the entrepreneur-led management model for the Safe Water Station. The Form is to be used to interview and collect standard information on each individual or organization that submitted an application to operate the Safe Water Station in response to the invitation developed using Tool 9. The Local Government Checklist is a guide to obtaining a resolution from local government concerning three key aspects that must be decided on before investments are made in the construction or establishment of the Safe Water Station. The Financial Checklist is included to guide the first of many financial decisions and commitments that must be made by the Safe Water Committee irrespective of the management model it has chosen to follow.

HOW TO USE THE TOOL

The three pieces of this Tool are interconnected and rely on each other for successful development of a Safe Water Station. If the Safe Water Station Partners have chosen to follow the community-led management model, then it is still critical for them to obtain local government license to extract water and operation the Station and to establish their credentials for managing operating and loan funds by establishing a formal banking system. If the Safe Water Station Partners have chosen to follow the entrepreneur-led management model, then local government and banking remain critical steps to complete, but the most important step becomes the vetting of the applicants to operate the Safe Water Station. This vetting is guided by use of the Entrepreneur Analysis Form.

Using the Entrepreneur Analysis Form

Entrepreneur selection is the most critical step in making the entrepreneur model successful. The entrepreneur needs to have the technical capability to setup and run the Safe Water Station and the business skills to make it a commercially sustainable venture. The Safe Water Network recommends strongly that the Safe Water Station be operated and governed by a single entrepreneur and that the land on which the Station is established has a clear title land deed in the name of the entrepreneur. He / she will also create and lead efforts at demand generation and sales within the village and surrounding villages so must have an understanding of his market and how best to advertise the services of the Safe Water Station to it. Continuously increasing the demand, sustaining the demand, maintaining prices at affordable levels along, maintaining the Safe Water Station, and operating a customer-friendly operation are core responsibilities of the entrepreneur.

The Entrepreneur Analysis Form is intended to help the Safe Water Station Partners evaluate the ability of entrepreneurs to take on this broad set of tasks. The Form is used to collect personal, professional, financial, and reputational information about each applicant and then rate each applicant against the desired qualities of an entrepreneur Operator. The Form is to be filled out independently by each evaluator without reference to or examination of the Forms being completed by other. After all evaluators have completed their forms, the evaluators will meet with the Safe Water Station Partners to compile all information collected, review and discuss all of the information, and select the best entrepreneur to operate the Safe Water Station.

Desired Qualities of an Entrepreneur Safe Water Station Operator

The entrepreneur to be selected for setting up and operating the Safe Water Station should have leadership and stature in addition to the capability to install, operate, maintain and manage the Safe Water Station. Criteria for selecting an entrepreneur can be broadly divided into the following categories:

- Commercial experience or background, preferably in the village;
- Understanding of financial management systems and requirements;

- Credibility and acceptability within the village;
- A passion for promotion, communication, and providing service to the community; and
- Ability to execute.

In addition to the above, the entrepreneur must be a nonpartisan and welcome customer without discrimination. A proven history of entrepreneurialism is also highly desirable. The Entrepreneur Analysis Form is intended to guide the collection of information so that the Safe Water Station Partners can evaluate each applicant against these criteria and make the critical selection of the entrepreneur to operate the Safe Water Station.

Sharing Information during Interviews to Complete the Entrepreneur Analysis Form

The interviews conducted to complete the Entrepreneur Analysis form are intended to be a two-way dialogue. In this fashion, the Safe Water Station Partners will collect all the information they require to make a selection of an entrepreneurial Safe Water Station Operator and the entrepreneur applicant will gain a full understanding of the contributions that she / he is to make toward the Safe Water Station. These expected contributions are listed at the end of the Entrepreneur Analysis Form in Tool 10.

Using the Local Government and Financial Checklists

The two Checklists are provided in the Tool to inform the Safe Water Station Partners about some key actions that need to be completed before resources are invested to establish the operation of the Safe Water Station. The Local Government Checklist lays out the core content of a resolution that needs to be issued by local government to permit and endorse the Safe Water Station's core operations: extraction of water, disposal of potential waste, and non-discrimination. It also presents a draft of a necessary letter that must be delivered by local government to the agency / organization requesting their assistance in establishing the Safe Water Station and putting in writing a small selection of the commitments local government and citizens make to support installation of the Safe Water Station. The Financial Checklist presents the key actions that must be taken by the Safe Water Committee before money and other resources enter the community to support establishing the Safe Water Station.

Entrepreneur Analysis Form

SECTION I: PERSONAL INFORMATION

CRITERIA	INFORMATION				SOURCE OF INFORMATION
Full Name					Interview by Village Partner and agency/organization
Gender	Male		Female		"
Educational background					"

SECTION II: PROFESSIONAL INFORMATION

	CRITERIA	INFORMATION	SOURCE OF INFORMATION
a	**Professional background**		Interview by Village Partner and agency/organization
b	**Experience in years**		"
c	**Nature of work**		"
d	**Is the work full-time or part-time?**		"
e	**Other experience related to operating a Safe Water Station**		"
f	**Monthly revenue from work**		"
g	**Monthly operating costs from work**		Interview by Village Partner and agency/organization and review of accounting records and/or income tax records

SECTION III: FINANCIAL BACKGROUND

	CRITERIA	INFORMATION				SOURCE OF INFORMATION
a	**Describe any previous financial loans and/or commitments**					Interview by Village Partner and agency/organization
b	**Describe current cash inflows**					"
c	**Describe current cash outflows**					"
d	**If currently an entrepreneur, describe the nature of his/her business**					"
e	**Is the business described in "d" still operating?**	Yes		No		"
f	**Was his/her business successful?**	Yes		No		"

g	**If the business failed, describe the reason for failure**		"

SECTION IV: CREDIBILITY AND ETHICAL BACKGROUND

	CRITERIA	INFORMATION	SOURCE OF INFORMATION
a	**Is he/she eligible for financial support from an organization?**	Yes ☐ No ☐ If yes, describe the type of organization:	Interview by Village Partner and Agency/organization
b	**What is the opinion of the village leader of this applicant?** (1 = very low, 10 = very favorable, tick one)	1 2 3 4 5 6 7 8 9 10 ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Name and position of village leader:	Interview by Village Partner and agency/organization with village leader
c	**What is the opinion of women's group(s) of this applicant?** (1 = very low, 10 = very favorable, tick one)	1 2 3 4 5 6 7 8 9 10 ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Name of women's group(s):	Interview by Village Partner and agency/organization with women's group(s)
d	**What is the opinion of other village organizations of this applicant?** (1 = very low, 10 = very favorable, tick one)	1 2 3 4 5 6 7 8 9 10 ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Name of village organization(s):	Interview by Village Partner and agency/organization with village organization(s)
e	**What is the opinion of villagers (in various locations) of this applicant?** (1 = very low, 10 = very favorable, tick one)	1 2 3 4 5 6 7 8 9 10 ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Number of villagers interviewed:	Interview by Village Partner and agency/organization with known and respected key informants
f	**Average acceptability of the candidate to the agency/organization** (1 = very low, 10 = very favorable, tick one)	1 2 3 4 5 6 7 8 9 10 ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Names of Agency/organization representatives:	Meeting of agency/organization representatives
g	**Average acceptability of the candidate's financial profile to the agency/organization** (1 = very low, 10 = very favorable, tick one)	1 2 3 4 5 6 7 8 9 10 ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Names of Agency/organization representatives:	Meeting of agency/organization representatives

SECTION V: DESIRABLE QUALITIES OF AN ENTREPRENEUR

	CRITERIA	INFORMATION	SOURCE OF INFORMATION
a	**The candidate possesses the passion to drive the business into a sustainable venture** (1 = strongly disagree, 10 = strongly agree, tick one)	1 2 3 4 5 6 7 8 9 10 Comments of evaluators:	Meeting of Village Partner and agency/organization
b	**The candidate has the ability to understand and execute a Safe Water Station** (1 = strongly disagree, 10 = strongly agree, tick one)	1 2 3 4 5 6 7 8 9 10 Comments of evaluators:	Meeting of Village Partner and agency/organization
c	**Does the applicant belong to any groups or locations within the village?**	Yes No If yes, name the groups or locations:	Meeting of Village Partner and agency/organization
d	**How well is the candidate accepted by all the villagers, village organizations, village leader, and other groups within the village?** (1 = unacceptable, 10 = very acceptable, tick one)	1 2 3 4 5 6 7 8 9 10 Comments of evaluators:	Meeting of Village Partner and agency/organization
e	**The applicant can generate, sustain, and increase the demand for safe water in the village and surrounding villages?** (1 = strongly disagree, 10 = strongly agree, tick one)	1 2 3 4 5 6 7 8 9 10 Comments of evaluators:	Meeting of Village Partner and agency/organization
f	**The candidate should be supported to establish and operate a Safe Water Station**	Yes No Comments of evaluators:	Meeting of agency/organization representatives

Names of Evaluators Date

Signatures of Evaluators

Entrepreneur Contributions Towards a Safe Water Station

Contributions to the Physical Works of the Safe Water Station

1. A building of minimum 15 feet x 20 feet, with the following specifications:
   a. Floor tiling and wall tiles up to a height of 5 feet for ease of cleaning
   b. Water-tight and lockable doors and glass windows
2. A bore well of minimum 150 feet depth with plastic casing with sufficient withdrawal capacity demonstrated by a 24-hour Pump-out Test (see Tool 12)
3. All leak-proof piping for connecting the bore well to the water treatment system
4. Two tanks of 5,000 liters each – one to store untreated water and the other to store treated water
5. At least one "Safe Water Station" sign board and any branding signage as prescribed at the front of the building
6. Electricity connection of 5 KVA or generator for electricity back up
7. Vehicle for distribution as required
8. Purchase of at least 100 plastic safe water storage containers for distribution

Contributions to the Operation and Management of the Safe Water Station

1. Operate and maintain the Safe Water Station, and be responsible for the following:
   - Station Supervisor's salary
   - Operating costs including electricity, chemicals and consumables, filter cartilages, etc.
   - Maintain treated water quality for, at a minimum, the 9 key drinking water quality parameters presented in Tool 8, to the standards dictated by national regulations or the World Health Organization (WHO)
   - Ensure water quality testing from a laboratory approved and selected by the agency / organization every quarter or as prescribed
   - Maintain consumable chemicals needed for operation of the water treatment system
   - Maintain the physical integrity and hygienic status of the civil structure of the Safe Water Station
   - Operational expenses for setting up of a distribution system throughout the village and surrounding areas
   - Maintaining financial reserves to replace and / or repair the water treatment system, motors pumps, etc. as required
   - Promote the use of safe drinking water
   - Promote health and hygiene through education and awareness generation amongst villagers, and.
   - Conduct studies to identify the causes of low acceptance or reluctance of villagers to purchase drinking water from the Safe Water Station
   - Collaborate with the Safe Water Station Partners to develop promotional campaigns that encourage signup and purchase of safe water by new customers
   - Sell water in narrow-neck, safe water storage containers only, which prevents people from re-contaminating safe, treated water
   - Establish and maintain Standard Operating Procedures acceptable to the Safe Water Station Partners such as washing of cans, cleanliness of surroundings, water testing procedures, and maintenance of all related records
   - Be open to providing subsidized water to very poor families, old-aged couples, and/or widows for purchasing water
2. Maintain all records in the prescribed log books / registers of manufacturing, quality, customer details, books of accounts, sales revenue as well as volumes including that of distribution to nearby hamlets and share it transparently

3. Ensure the security of the Safe Water Station as well as all personnel from the Safe Water Station Partners visiting the village
4. Preserve the sanctity of any branding applied to the Safe Water Station by maintaining high quality drinking water product, ensuring fair distribution to all sections of the community at a price agreed to with the Safe Water Station Partners, and selling water under the brand only (if applicable)
5. Collaborate with the Safe Water Station Partners and local government to establish the price of water sold

Documents to be collected from the Entrepreneur and Verified

1. Proof of land and title deed where the plant will be housed.
2. Proof of address and identification
3. Advance check toward partial cost of the construction of the Safe Water Station
4. Local government certification that the entrepreneur has the authorization to
    a. Draw ground water sufficient to service the Safe Water Station
    b. Dispose of reject water from the water treatment system (if necessary)
5. Right of exclusivity of a period of five years from local government for the provision of treated water in branded or unbranded safe water containers at an affordable price. This is essential for the financial sustainability of the project
6. Any local governmental or legal clearance necessary for establishing or operating the Safe Water Station

Entrepreneur-cum-Plant Operator with his family

Local Government Checklist

Before installing a Safe Water Station, a resolution from local government must be obtained. In this resolution, it is stated that the local government gives its consent and commitment to the installation of a Safe Water Station by facilitating the following:

_ Permitting the abstraction / use of surface water or of groundwater through use of a bore well of minimum 125 feet with a flow rate as per the requirements of the water treatment system

_ Encouraging the entire community without discrimination of color, caste, sexual orientation, or creed to purchase and use the treated water from the Safe Water Station

_ Approving and allotting a place for safe disposal of any wastewater generated by operation of the Safe Water Station, if necessary

_ Letter delivered by local government authority to the agency / organization requesting assistance in establishing a Safe Water Station. Model letter is provided below:

[LETTERHEAD OF VILLAGE LEADER/LOCAL GOVERNMENT AUTHORITY]

Subject: Request for water treatment plant and assistance for providing safe drinking water to everyone in the village for their good health

The undersigned, forming part of the community of [COMMUNITY NAME AND LOCATION] request [NAME OF AGENCY / ORGANIZATION] to assist the villagers in the area in the provision of safe drinking water to everyone in the village for their good health.

Present Situation

[VILLAGE NAME] is geographically located in the district of [DISTRICT NAME] and has been facing the problem of poor drinking water quality. The present quality of drinking water [INSERT DESCRIPTION OF FINDINGS OF WATER QUALITY ANALYSIS] exceeds the safety norms of the [NATIONAL GOVERNMENT] and the World Health Organization. Due to this problem, the villagers fall ill and do not maintain good health and suffer from debilitating diseases including [NAME PREVALENT WATER-RELATED DISEASES].

Request

We the undersigned therefore request the [AGENCY/ORGANIZATION] engaged in the provision of safe drinking water in areas affected by high levels of contaminants in the current drinking water sources, to support the installation of a Safe Water Station in our village which can provide safe, potable water to villagers. We know that [AGENCY/ORGANIZATION] supports such activities technically and financially and has been working on establishing sustainable operation of Safe Water Stations in collaboration with other locally active partners.

Citizens of this village agree to buy safe drinking water in specially provided storage cans after becoming members of the Safe Water Station. The community and/or the Operator also agree to contribute to the civil works of a building for the Safe Water Station. The villagers also agree that the Safe Water Station will be the only commercial provider of drinking water to the village for 5 years from the inauguration of the Safe Water Station.

We pledge that we will also endeavor to be a part of this good cause by contributing in cash or kind, to the greatest extent possible for us, in order to further strengthen the communally beneficial efforts of the [AGENCY/ORGANIZATION] in promoting the safe water purchase and habits of villagers.

We thank you for your consideration of our request and look forward to working with you on this needed improvement in the lives of our villagers.

[NAME AND SIGNATURE]

[NAME OF LOCAL GOVERNMENT AUTHORITY SUBMITTING REQUEST FOR ASSISTANCE]

[VILLAGE NAME, DISTRICT NAME]

Financial Checklist

The Safe Water Committee must establish a bank account with a national bank, post office, or other financial institution. They will deposit all funds collected into this bank account, and they will make all payments, to the extent possible, using checks drawn on this bank account. The Safe Water Committee will maintain an account register that lists all transactions – both income and expenditures. If the Safe Water Committee chooses the community-led management model for operation of the Safe Water Station, then the money collected from sale of water by the Operator should be reported and deposited daily into the bank account.

___ Bank account established at a financial institution with a strong reputation

___ Safe Water Committee President and a senior representative of the Village Partner are included as authorized signatories to the bank account

PURIFY MODULE: TOOL 11

Signing a Memorandum of Understanding

PURPOSE

The Memorandum of Understanding (MoU) is the legal document that is signed by all stakeholders of the Safe Water Station. These include the village head, the members of the Safe Water Committee, the operator of the Station, relevant organizations, the Village Partner, and the agency / organization. All required terms and conditions, roles, and responsibilities are described in the MoU.

This Tool provides sample MoUs for (1) community-led management and (2) entrepreneur-led management of the Safe Water Station. These samples can be adjusted to conform to the local conditions, laws, and situation. When the MoU is signed, improvements of the physical structure of the Safe Water Station can begin.

AUDIENCE

This Tool is for use in collaboration by the Safe Water Station Partners and the selected Operator. The language of the MoU must be simple enough to translate clearly into the local language of legal transactions, but is must also be specific enough to clearly describe the roles and responsibilities of each signatory to the MoU.

PRE-REQUISITES

Consent of local government, legal status of the Safe Water Committee, the Safe Water Committee bank account, selection of a management model for the Safe Water Station, and choosing a Safe Water Station Operator must all be complete before negotiating and signing the MoU. In addition, the MoU should be translated into the local language of legal transactions and then translated independently back into English to ensure that the translation into the local language was accurate and reflects the detail and intent of the sample MoU presented.

MATERIALS NEEDED

No special materials are needed to use the Tool

MATERIALS CONTAINED IN THIS TOOL

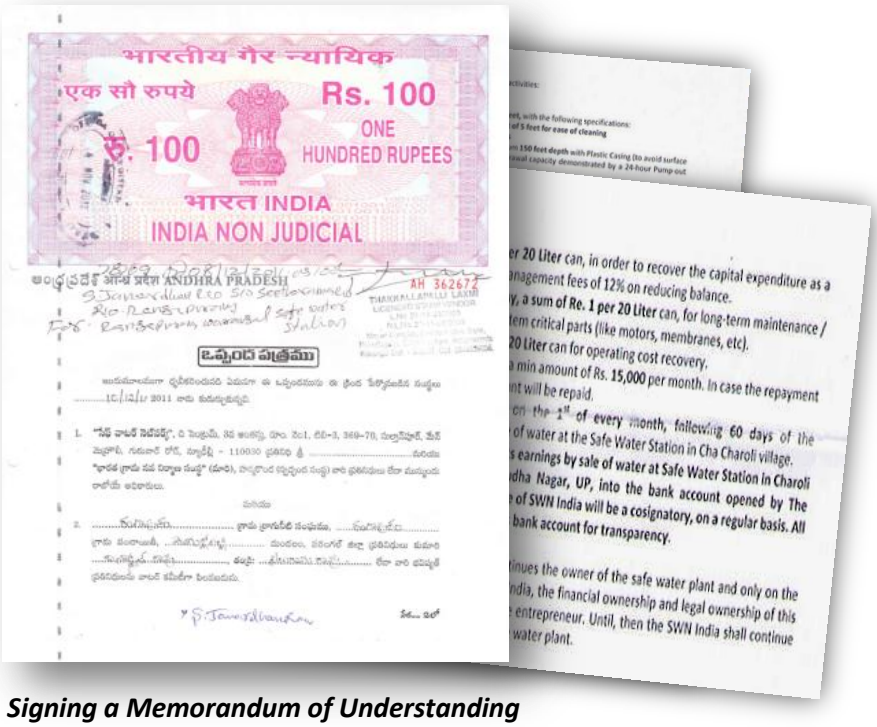
The Tool contains two sample MoUs. The first is for use by the agency / organization, Village Partner, and Safe Water Committee when the community-led management model is to be implemented. The second is for use by the agency / organization and the entrepreneur Operator when the operator-led management model is implemented.

HOW TO USE THE TOOL

This Tool should be used to guide and focus the discussion among the set of signatories to the MoU. Representatives of each signing organization must meet and review each line of the MoU. If necessary, they should negotiate the exact wording of the MoU until all signatories agree to the language and intent of the MoU. When the wording of the MoU is finalized and agreed to, then representatives of each of the signing organizations will place their signature on the document, and each representative will be provided with a fully signed version of the final MoU. At this point, the MoU becomes a legal document and the signatories are reach to construct and launch the Safe Water Station.

After the MoU has been signed and roles and responsibilities for the installation and operation of the Safe Water Station are agreed to, it is time to collect funds needed to set up the Station. Funds can be raised and collected from the following sources:

- In the case of a community-led management model, contributions from villagers are collected by representatives of the Safe Water Committee and placed into the Committee's bank account the same day;
- In the case of an entrepreneur-led management model, contributions are collected directly by the Village Partner from the entrepreneur;
- Microfinance institutions in the form of small loans;
- Non-commercial loans from individual villagers or organizations; or
- Local banks.



Signing a Memorandum of Understanding

Memorandum of Understanding

Agency/organization, Village Partner, and Safe Water Committee for Community-led Safe Water Station Management

This Memorandum of Understanding (MoU) is entered into on [DATE].

By and between

[AGENCY/ORGANIZATION NAME, ADDRESS] represented by [NAME OF REPRESENTATIVE] and [VILLAGE PARTNER NAME], (hereinafter jointly referred to as "**NGO**") which expression wherever the context so permits, shall mean and include its successors and assigns of the **One Part.**

and

[COMMITTEE NAME], the Safe Water Committee from [VILLAGE NAME, DISTRICT NAME] represented by [NAME OF REPRESENTATIVE] (hereinafter call the "**Water Committee**") which expression, wherever the context so permits, shall mean and include its successors and assigns of the **Other Part.**

Whereas:

1. The Water Committee is desirous of purchasing, installing, maintaining, and managing safe drinking water plant(s) or safe water drinking station(s) ("**Safe Water Station**") at [VILLAGE NAME, DISTRICT NAME] as per quality guidelines along with loan support from the NGO.

2. The Water Committee has approached the NGO to install a Safe Water Station in the village so as to provide potable water to the beneficiaries without any discrimination of color, caste, sexual orientation, or creed. The provision shall also contribute to the collective efforts of the Government of [COUNTRY OF IMPLEMENTATION] in providing clean and safe drinking water to villagers. It is recognized that availability of safe drinking water supports good health and therefore is medical relief to the villagers.

3. The NGO hereby agrees, based on a written request from the Water Committee, to contribute and participate in the endeavors of the villagers of [VILLAGE NAME]. This MoU is being now executed so as to outline in writing various terms and conditions as agreed to amongst both parties.

Following are the terms and conditions of the MoU:

1. Responsibilities of the NGO
    a. Develop the credibility of the local brand name of water produced at the Safe Water Station until the water quality and pricing is maintained as per its directions.
    b. Support demand generation and awareness creation for the branded water expected to include both market and feasibility studies as needed.
    c. Provide health and hygiene education to improve individual and household hygiene behaviors and generate demand for the branded water.
    d. Work with the Water Committee to develop cost efficient operations, facilitate sales distribution, and identify distribution centers.
    e. Provide technical assistance for the installation and commissioning of the water treatment works.
    f. Provide initial and in-service Supervisor training.
    g. Monitor maintenance for a period of three years and provide support, if required.
    h. Provide technical guidance to the selected Operator to set up the Safe Water Station

treatment works to produce quality potable water as per established standards.

i. Provide adequate staff to support the program at the field level under the direction of a full-time Project Manager.
j. Make available funds for a total amount of [US$ EQUIVALENT OF UP-FRONT FUNDS] ("**Contribution Amount**") for (i) purchase of the treatment works for the Safe Water Station for [US$ EQUIVALENT OF VALUE]; (ii) installation, engineering, charges, and initial water quality testing for [US$ EQUIVALENT OF VALUE]; and (iii) transportation of water storage cans for [US$ EQUIVALENT OF VALUE]; and (iv) execute contracts for each of the aforesaid at the same time with the supplier(s) / service provider(s), as the case may be, in term of Clause I(4) below for the purpose of setting up the Safe Water Station in [VILLAGE NAME].
k. The NGO will provide technical guidance to the Water Committee and the Station Supervisor to set up the Safe Water Station treatment works to produce quality potable water as per established standards.
l. Provide required training to the Supervisor of the Safe Water Station for proper operation, maintenance, and record keeping.
m. Facilitate a monthly audit of all of the Safe Water Station account and bank books so that proper reports are sent to donors / grantors of monetary support to the NGO in sponsoring the Safe Water Station.
n. Contract and enter into purchase transaction(s) with the supplier of the treatment works for the Safe Water Station and water storage containers.
o. Provide a listing of recommended service providers for installation and service of the Safe Water Station.
p. In consultation with donors and dependent on the availability of funds, place the order for the treatment works as per the operational needs and limitations of the Safe Water Station.
q. Implement health awareness campaigns and other promotions with its own funds related to the Safe Water Station.
r. Provide to the Safe Water Station Operator standard operating procedures for the operation of the Safe Water Station.
s. NGO reserves the right of inspection / monitoring / supervision of Safe Water Station activities.
t. NGO reserves the right to nominate any other third party / outside agency / expert team for the aforementioned inspection / monitoring / supervision of Safe Water Station activities.
u. NGO is free to derive lessons from the work and disseminate it for the larger good of the general public.

2. Responsibilities of the Water Committee
    a. Seek and obtain all local and legal clearances and approvals as may be required.
    b. Provide for security of the Safe Water Station as well any NGO personnel or guests who visit the Safe Water Station.
    c. Ensure the provision of electricity to the Safe Water Station.
    d. Preserve the integrity of any branded treated water by maintaining the highest quality of operations, distributing to all sections of the community at a price agreed to with the NGO, and selling water under the brand only, if applicable.
    e. Collect at least [US$ EQUIVALENT $10] per family as a membership fee from all of the households to enroll them as members of the Water Committee.
    f. Use the amount collected as membership fees in terms of Clause 2.e above to build civil works and/or buy water storage containers for the Safe Water Station as per quality guidelines. In the event additional funds are required for completing the civil works to establish the Safe Water Station, the Water Committee itself will generate these funds by

way of accessing a financial loan from their own resources, and the NGO shall be under no obligation to provide for such additional requirement of funds.

g. Bear all the running and maintenance expenses including Station Supervisor's salary, electricity charges, chemicals and consumables, filter cartridges, etc. required for operation of the treatment works out of collection of sale proceeds, and the NGO will not provide any ongoing support towards these costs.
h. Provide "Safe Water Station" promotional board and branded signage as agreed to with the NGO at the front of the building
i. Repay the Contribution Amount to the NGO, in unequal installments on the 20th day of every month, within a period not exceeding 30 months from the date of commencement of sale of water at the Safe Water Station.
j. For the purpose of repayment of the Contribution Amount in terms of Clause 2.g above, the operator shall allocate 50% of the sale price (defined below) of water from the Safe Water Station to the members of the Water Committee, until the Contribution Amount is fully repaid. The Water Committee may repay the Contribution Amount from any source(s).
k. Sell water only in the provided storage cans at a cost of less than US$0.01 [LOCAL EQUIVALENT] per 20 liters unless otherwise agreed to with the NGO ("**Sale Price**").
l. For sale of water outside the village jurisdiction, the Water Committee will establish the price of water with prior written consent of the NGO.
m. The Water Committee will never indulge in separate commercial sale of water purified in the Safe Water Station. The Water Committee will preserve any brand name applied to the water purified in the Safe Water Station and will sell water under this brand only.
n. Send water samples at its own expense for professional testing at an authorized laboratory quarterly and share the results of the testing with the NGO.
o. Any compromise in the quality of produced water will authorize the NGO to seal the Safe Water Station for public good.
p. Ensure that the Safe Water Station is operated in accordance with all Standard Operating Procedures provided by the NGO.
q. Maintain stock of reserves to replace any water treatment system parts when required.
r. Promote the purchase and use of safe drinking water through health and hygiene education and awareness generation among villagers.
s. Open and maintain a bank account in the name of the Water Committee or any person identified by the Water Committee and deposit all its earnings by sale of water as per earlier clauses into the bank account on at longest a weekly basis. Any withdrawal from this bank account will be made only with the written authorization of the Water Committee.
t. Ensure to procure from the person so identified in the aforesaid Clause, an "undertaking" to the effect that the said person shall not misappropriate the money so collected by way of selling water, and that the person shall be fully responsible to the Water Committee. The Water Committee shall provide to the NGO a copy of the aforesaid undertaking and also its monthly sales information, list of buyers, expense statements, and a bank account statement.
u. Maintain account records up to date in a very transparent manner. Any official from the NGO will have the authority to examine the records at any time without prior information.
v. All the records and accounts will be kept at the Safe Water Station premises and only by the Water Committee.
w. Meet at least every 15 days and decide on income
x. and expenditures, repayments, issues faced, sales, responsibility sharing for sales promotion, operational issues, and other concerns within the authority of the Committee.
y. Maintain openness to the possibility of providing water at below market price to very poor

families, elderly residents, and/or widows

Duration of the Agreement:

1. The terms of this Agreement would initially be for a period of three years beginning on either the date of the launch of the Safe Water Station or 60 days after the date of the signing of this agreement, whichever is earlier.
2. In case the entire repayment of the Contribution Amount is not made during the initial period, the NGO holds the right to extend the agreement until the repayment is complete.

Confidentiality:

1. Both parties agree to maintain confidentiality with regard to all observations and documents that pertain to business secrets and / or proprietary information and to treat all information that is not public knowledge and of which they learn during the performance of the agreement as confidential.
2. As a rule, both parties consider any or all information exchanged in connection with this agreement to be confidential.

Termination of Agreement:

1. If either of the parties fails to perform its duties adequately as laid out in the agreement, either party may terminate the agreement with a notice of one month.
2. In the event full payment is not made by the Water Committee towards the Contribution Amount, the NGO will have entire rights to take possession of the system and take it to any other location as it deems fit.
3. This MoU embodies the entire agreement and understanding between the parties and supersedes all prior understandings and / or agreements, whether written or oral, between the parties relating to the subject matter hereof.

All disputes in relation to this agreement will fairly be tried to be resolved amicably. In case of necessity the dispute shall be referred to the courts having appropriate jurisdiction.

Signed by:

On behalf of the NGO:

_____ Date: _____

Name

_____

Authorized Signature

On behalf of the Water Committee:

_____ Date: _____

Name

_____

Authorized Signature

Witnesses:

_____ Date: _____

Name

_____

Authorized Signature

_____

Address

_____ Date: _____

Name

_____

Authorized Signature

_____

Address

Memorandum of Understanding

Agency / organization and Safe Water Station Entrepreneur

This Memorandum of Understanding (MOU) is entered into on [DATE].

By and between

[AGENCY/ORGANIZATION NAME, ADDRESS] represented by [NAME OF REPRESENTATIVE] (hereinafter jointly referred to as "**NGO**") which expression wherever the context so permits, shall mean and include its successor(s) and assign(s) of the **One Part.**

and

[NAME OF STATION] Safe Water Station from [VILLAGE NAME, DISTRICT NAME] represented by [NAME OF ENTREPRENEUR] (hereinafter called "**The Operator**") in conjunction with appropriate representative of the national government (hereinafter called "**The Government**") which expression, wherever the context so permits, shall mean and include its successors and assigns of the **Other Part.**

Whereas:

1. The Operator is desirous of purchasing, installing, maintaining, and managing safe drinking water plant(s) or safe water drinking station(s) ("**Safe Water Station**") at [VILLAGE NAME, DISTRICT NAME] as per quality guidelines along with loan support from the NGO.

2. The Operator has approached the NGO to install a Safe Water Station in the village so as to provide potable water to the beneficiaries without any discrimination of color, caste, sexual orientation, or creed. The provision shall also contribute to the collective efforts of the Government of [COUNTRY OF IMPLEMENTATION] in providing clean and safe drinking water to villagers. It is recognized that availability of safe drinking water supports good health and therefore is medical relief to the villagers.

3. The NGO hereby agrees, based on a written application from The Operator and due diligence conducted independently to evaluate the business acumen of The Operator, to contribute and participate in the endeavors of the villagers of [VILLAGE NAME]. This MoU is being now executed so as to outline in writing various terms and conditions as agreed to amongst both parties.

Following are the terms and conditions of the MoU:

1. Responsibilities of the NGO
    a. Develop the credibility of the local brand name of water produced at the Safe Water Station until the water quality and pricing is maintained as per its directions.
    b. Support demand generation and awareness creation for the branded water expected to include both market and feasibility studies as needed.
    c. Provide health and hygiene education to improve individual and household hygiene behaviors and generate demand for the branded water.
    d. Work with The Operator to develop cost efficient operations, facilitate sales distribution, and identify distribution centers
    e. Provide technical assistance for the installation and commissioning of the water treatment works
    f. Provide initial and in-service operator training
    g. Monitor maintenance for a period of three years and provide support, if required

h. Provide purchase cards, where appropriate
i. Make available funds for a total amount of [US$ EQUIVALENT OF UP-FRONT FUNDS] ("**Contribution Amount**") for (i) purchase of the treatment works for the Safe Water Station for [US$ EQUIVALENT OF VALUE]; (ii) installation, engineering, charges, and initial water quality testing for [US$ EQUIVALENT OF VALUE]; and (iii) transportation of water storage containers for [US$ EQUIVALENT OF VALUE]; and (iv) execute contracts for each of the aforesaid at the same time with the supplier(s)/service provider(s).
j. Provide technical guidance to The Operator to set up the Safe Water Station treatment works to produce quality potable water as per established standards.
k. Provide required training to The Operator of the Safe Water Station for proper operation, maintenance, and record keeping.
l. Facilitate a monthly audit of all of the Safe Water Station account and bankbooks so that proper reports are sent to donors of monetary support to the NGO in sponsoring the Safe Water Station.
m. Contract and enter into purchase transaction(s) with the supplier of the treatment works for the Safe Water Station and water storage containers.
n. Provide a listing of recommended service providers for installation and service of the Safe Water Station.
o. In consultation with donor and dependent on the availability of funds, place the order for the treatment works as per the operational needs and limitations of the Safe Water Station.
p. Implement health awareness campaigns and other promotions with its own funds related to the Safe Water Station.
q. Provide adequate staff to support the program at the field level under the direction of a full-time Project Manager.
r. Provide to The Operator standard operating procedures for the operation of a Safe Water Station.
s. NGO reserves the right of inspection/monitoring/supervision of Safe Water Station activities.
t. NGO reserves the right to nominate any other third party/outside agency/expert team for the aforementioned inspection/monitoring/supervision of Safe Water Station activities.
u. NGO is free to derive lessons from the work and disseminate it for the larger good of the general public.

2. Responsibilities of the Operator
   a. Purchase, install, maintain, and manage a Safe Water Station at [VILLAGE NAME] village without any discrimination based on color, caste, sexual orientation, or creed.
   b. Provide land of at least 300 square meters
   c. Provide a building of minimum 28 square meters of one or two rooms with floor tiling, wall tiles up to a height of 1.5 meters for ease of cleaning, aluminized and glass doors and windows
   d. Provide a bore well of minimum 45 meters depth with plastic casing, sufficient yield demonstrated by a 24-hour Pump Out Test (see Tool 12), and pump adequate to the design capacity of the Safe Water Station
   e. Provide all piping to connect the bore well pump to the water treatment system
   f. Provide two hygienic tanks of 5,000 liters each – one for raw water and one for treated water
   g. Provide "Safe Water Station" promotional board and branded signage as agreed to with the NGO at the front of the building
   h. Electricity connection as required by the operation of the Safe Water Station
   i. Vehicle for distribution of treated water, if appropriate

j. At least 100 safe storage water cans as agreed to with the NGO for distribution at least at cost
k. Seek and obtain all local and legal clearances and approvals as may be required
l. Provide for security of the Safe Water Station as well any NGO personnel who visit the Safe Water Station
m. Preserve the integrity of the branded treated water by maintaining the highest quality of operations, distributing to all section of the community at a price agreed to with the NGO, and selling water under the brand only
n. Bear all the running and maintenance expenses including Station Supervisor's salary, electricity charges, chemicals and consumables, filter cartridges, etc. required for operation of the treatment works out of collection of sale proceeds, and the NGO will not provide any ongoing support towards these costs.
o. Repay the Contribution Amount to the NGO in unequal installments on the 20th day of every month within a period not exceeding 30 months from the date of commencement of sale of water at the Safe Water Station.
p. For sale of water outside the village jurisdiction, the price of water will be established in cooperation with the Safe Water Committee with prior written consent of the NGO.
q. Maintain treated water quality to meet national or WHO drinking water quality standards, which is more restrictive
r. Send water samples at its own expense for professional testing at an authorized laboratory quarterly and share the results of the testing with the NGO.
s. Any compromise in the quality of produced water will authorize the NGO to seal the Safe Water Station for public good.
t. Ensure that the Safe Water Station is operated in accordance with all standard operating procedures provided by the NGO.
u. Maintain stock of reserves to replace any water treatment system parts when required
v. Promote the purchase and use of safe drinking water through health and hygiene education and awareness generation among villagers
w. Selling only water storage cans approved by the NGO
x. Operate the Safe Water Station in accordance with all Standard Operating Procedures provided by the NGO
y. Lead formal and/or informal market analyses and develop and implement targeted promotional campaigns that encourage adoption of safe water among potential customers and grow the revenue stream of the Safe Water Station
z. Maintain openness to the possibility of providing water at below market price to very poor families, elderly residents, and/or widows

Recovery of Cost Incurred:

1. Justification and Logic
    a. A single Safe Water Station is only the start to providing safe drinking water for thousands or millions of people. This can only be achieved if the investment in the first Station is fully recovered and used for investing in the next Safe Water Station. Therefore, cost recovery is introduced into this agreement. The objective is not just to make a profit in operating a Safe Water Station but also to repay initial financial capital ("Contribution Amount") to establish local ownership and make more Safe Water Stations possible.
    b. It is imperative that revenue from water sales is used to not only pay for immediate operation, promotion, and maintenance expenses but is also used for the repayment of the Contribution Amount.

2. Repayment System
    a. Safe Water Network India supports the _____ Safe Water Station in order to provide safe water to the community to improve their health. It also wishes to expand and replicate this initiative in other quality-affected villages. With this objective, it is essential that the benefiting community ensures that the capital deployed in the treatment plant by Safe Water Network India is repaid at the earliest. It is, therefore, agreed by the community that from the surpluses generated after meeting the operating costs from water user fee, an amount of US$ 150 (INR 9,000) be repaid every month in the Sustainability-cum-Reinvestment Fund maintained by Safe Water Network India.
    b. It is also mandatory that the plant upkeep and maintenance is at the highest standards to ensure that the water quality meets national and international standards. For ensuring a good plant health, the community or the entrepreneur agrees to pay a sum of US$ 42 (INR 2,500) per month plus applicable service tax to an authorized service provider towards the cost of periodic visits of the technicians as well as breakdown service support, as and when needed. This charge will also include raw and treated water quality testing at a NABL Certified Laboratory every six months. However, the safe water station community or entrepreneur will be responsible for procuring the spares and consumables directly from an authorized vendor.
    c. Any surplus generated over and above the aforementioned payments of US$ 150 towards capital repayment and US$ 42 + service tax towards service and quality tests can be used by the community or entrepreneur for any of their needs.
    d. All payments to the NGO will be made on the 1st of each month beginning 60 days after the commencement of commercial operations and sale of water at the Safe Water Station.
    e. The Operator will deposit all its earnings by sale of water into a bank account opened by the Operator, where a representative of the NGO will be a cosignatory, on a regular basis. All payments for expenses and obligations will be made from this bank account.
    f. The NGO continues to own the water treatment system until it has recovered the Contribution Amount. When these funds have been recovered by the NGO, the financial and legal ownership of the water treatment system will be transferred to the Operator.
    g. In order to protect the Safe Water Station brand (if any), the NGO will keep a full lien on the operations until fully satisfied with local operation that maintains quality, fair distribution, and affordable pricing.

Duration of the Agreement:

1. The terms of this Agreement would initially be for a period of three years beginning on either the date of the launch of the Safe Water Station or 60 days after the date of the signing of this agreement, whichever is earlier
2. In case the entire repayment of the Contribution Amount is not made during the initial period, the NGO holds the right to extend the agreement until the repayment is complete.

Confidentiality:

1. Both parties agree to maintain confidentiality with regard to all observations and documents that pertain to business secrets and/or proprietary information and to treat all information that is not public knowledge and of which they learn during the performance of the agreement as confidential.
2. As a rule, both parties consider any or all information exchanged in connection with this agreement to be confidential.

Termination of Agreement:

1. If either of the parties fails to perform its duties adequately as laid out in the agreement, either party

may terminate the agreement with a notice of one month.

2. In the event full payment is not made by the Operator towards the Contribution Amount, the NGO will have entire rights to take possession of the system and take it to any other location as it deems fit.
3. This MoU embodies the entire agreement and understanding between the parties and supersedes all prior understandings and/or agreements, whether written or oral, between the parties relating to the subject matter hereof.
4. All disputes in relation to this agreement will fairly be tried to be resolved amicably. IN case of necessity, the dispute shall be referred to the courts having appropriate jurisdiction.

Signed by:

On behalf of the NGO:

_____ Date: _____

Name

_____

Authorized Signature

On behalf of the Operator:

_____ Date: _____

Name

_____

Authorized Signature

Witnesses:

_____ Date: _____

Name

_____

Authorized Signature

_____

Address

_____ Date: _____

Name

_____

Authorized Signature

_____

Address

PURIFY MODULE: TOOL 12

Bore Well Installation

PURPOSE

With all legal agreements and commitments now in place, it is time for the Safe Water Station Partners and the selected Operator to install the centerpiece of the Safe Water Station: the water source. At the completion of using Tool 12, a secure water source will be installed to global specifications, and it will be tested to ensure that sufficient water is available to meet the operational needs of the Safe Water Station and that there is no environmental caused by the extraction of this volume of water. When these two criteria are met, it will be time to construct the physical building of the Safe Water Station and prepare for full commercial operation.

Not all Safe Water Stations will be equipped with a bore well, and it is not possible to include tools for the installation of surface water intakes, river diversion structures, spring boxes, or other potential water sources. But, it has been the experience of the Safe Water Network that bore wells are the most common water source, so this Tool is dedicated to their specification, construction, and examination.

AUDIENCE

This Tool is for use by any of the Safe Water Station Partners or Operators who are not familiar with the basic aspects of the professional installation of a bore well.

PRE-REQUISITES

Before installing a bore well, it is critical that all of the formal and informal requirements of the community and local government related to extraction of groundwater are fully satisfied. The Safe Water Station Operator needs to have absolute confidence that it has legal, environmental, financial, and social license to exclusively use the planned bore hole to meet the operational needs of the Safe Water Station.

Many times a local historical record exists – either formally or anecdotally – that can guide the location, drilling depth, and anticipated drilling problems of a borehole. If this is not the case, then the Safe Water Station Partners and Operator may need to engage the services of a skilled groundwater hydrologist to perform underground test and recommend the best location for a bore well.

MATERIALS NEEDED

Because of the possible controversy that the installation of any bore well can generate in a community, it will be particular important to document with photographs and / or video each day's work installing the bore well. These photographs and videos can be used to document the installation of proper materials by the bore well installer, assess the soil strata that the bore well passes through, and ensure that the installer is aware that diligent oversight is in place on the part of the Safe Water Station partners. There are many opportunities for unprofessional operations or use of inferior material in bore well installation, so diligent, daily oversight by unskilled but knowledgeable representatives of the Safe Water Committee is required.

In addition, there are several pieces of equipment that are necessary to test the output from a newly constructed well. These need to be readily available and in good working condition as the installation of the bore well nears completion. They are listed on the third piece of this Tool, the Bore Well Pump Out Test. They include a submersible pump of adequate size, a device to measure flow volume over time, a watch or timer, a water level indicator, a backup generator, and a tool kit.

MATERIALS CONTAINED IN THIS TOOL

There are three pieces to this Tool to cover the two steps that are necessary for bore well installation: (1) drilling of the well and (2) determining the sustainable yield of the well. The first piece of the Tool is a simple schematic showing the key components and features of a well installed bore well. The second piece of the Tool presents a selection of the technical requirement of the well head, the well casing, and the well screen. The third piece of the Tool provides step-by-step instructions for performing a bore well pump out test. The purpose of this test is to measure the yield of the well and the "drawdown" of well operation – the level by which the top of the water table is dropped when pumping is underway.

HOW TO USE THE TOOL

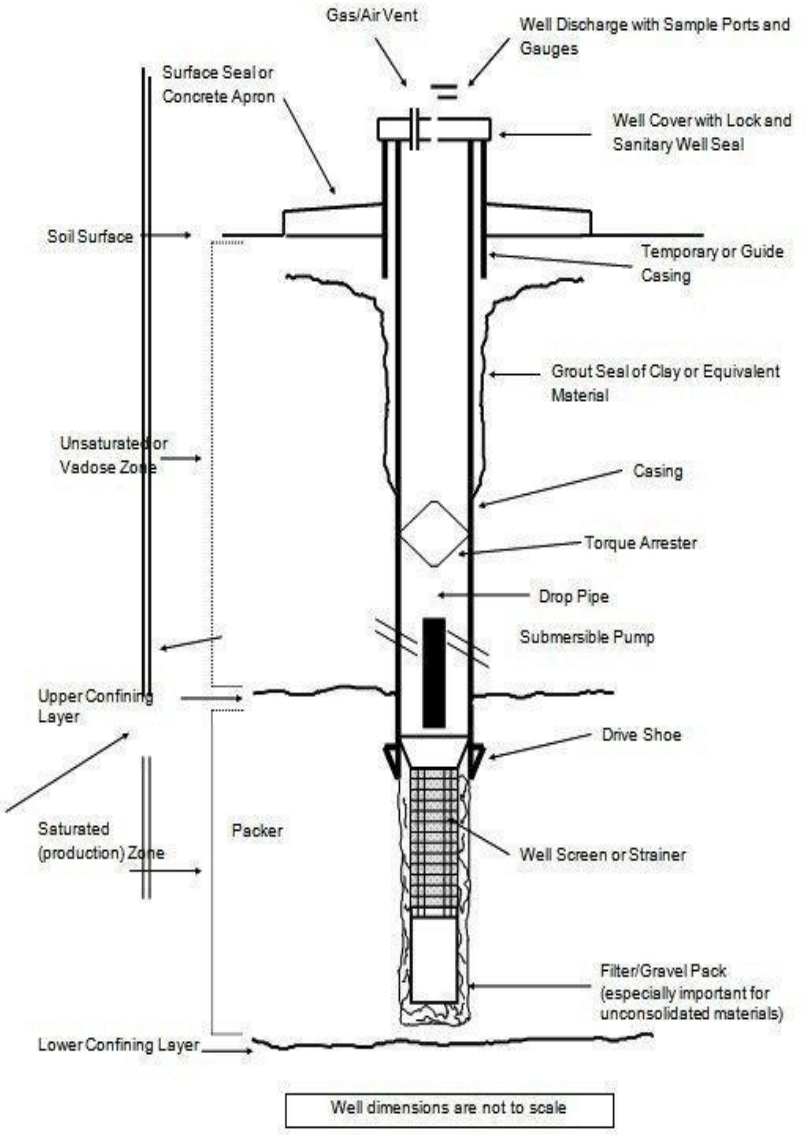
To begin, each of the three pieces of this Tool should be reviewed in detail with the Safe Water Station Partners and the Operator. These individuals are likely to be the "eyes on the ground" when the bore well is installed by the contracted installer. The deeper their understanding about the technical specifications and requirements of the bore well, the better they can provide quality control on-site.

The first piece in the Tool, "Bore Well – Key Components and Features" should be use almost as a checklist by the Safe Water Committee while overseeing the installation of the bore well. They should be able to identify and understand the importance of each item presented in the schematic diagram. Equipped with this knowledge, they should look for each item to be used or installed in their bore well. If the bore well is not newly drilled, but the Safe Water Station will be using an existing well, the checklist of key components and features should still be followed to ensure that the existing bore well is brought up to high quality standards before it is used by the Safe Water Station.

The second piece in Tool 12 lists several more specific technical aspects that should be written into the bore well installation contract and noted during installation. For the Well Screens, stainless steel is the preferred material and all joins must be sealed tightly using welding, threading, rubber or other waterproof sealants. The quality and continuity of the Well Casing is critical to prevent surface or subsurface contamination of the underground water source. The Casing must be continuous, watertight, and extend from the screen to a level at least 0.75 meters above the ground. The Well Head must be equipped with access ports, a lock, and sloped properly so that surface water flows away from and never toward the bore well. With a small amount of training, the Safe Water Committee should be able to understand the need for each referenced item and provide quality assurance during installation to make sure that each Key Specification is met.

The third piece of the Tool is step-by-step instructions for performing a "Bore Well Pump Out Test" after the bore well has been installed. The bore well must demonstrate that it can provide an adequate volume of water to meet the daily needs of the Safe Water Station without reducing the level of water table so far that either the submersible pump no longer is in water or the surrounding environment is damages by the reduction of available water. When the bore well – whether existing or new – meets the Key Specifications and satisfies the Pump Out Test, then it is time to construct the physical works of the Safe Water Station.

Bore Well – Key Components and Features



Bore Well – Key Specifications for Quality Control

Well Head

- Quality of materials and installation must be as per standards
- Yield, operating efficiency, control of sand/suspended solids/turbidity must provide clean, reliable water supply
- Ground surrounding top of well sloped away from well head to prevent contamination
- Locked cover with limited access eliminates contamination risk

Well Casing

- Permanent, continuous, protective from the well screen to the well head
- Water tight joints
- Heat-treated steel drive shoes
- Extending at least 0.75 meters about final ground level as shown in the photograph

Well Screen

- Made from 304 series stainless steel
- Water tight joints welded or threaded
- Sealed, where needed, with non-metallic neoprene or rubber
- Bottom sealed with threaded or welded plate

Borewell Protection

Bore Well Pump Out Test

Step Drawdown Test Method

Record basic data before installing pump in the well → Measure static water level, depth, and diameter of the bore well → Install the pump in the well, connect it to an uninterrupted source of power supply

↓

Lower the water level indicator and start the pump by setting discharge based on driller's reported yield and record the data → Go to the next stage of the Test by increasing the discharge and maintain data collection → After completion of three or four stages, stop pumping and collect recovery data

↓

Collect water samples for water quality testing

Equipment Required

- Submersible pump 2 – 3 HP (or existing pump with known specifications: HP or kw and flow rate)
- V-notch, flow meter, or calibrated container for discharge measurement
- Timing watch
- Water level indicator
- Generator for uninterrupted supply of power
- Tripod for lowering water level indicator
- Tool kit
- Personal safety equipment: shoes, gloves, helmet

PURIFY MODULE: TOOL 13

Civil Works Planning

PURPOSE

The planning and construction of the civil works of the Safe Water Station will be highly site-specific, but Tool 13 provides general guidelines and checklists to ensure that both are carried out to international standards. After the completion of the application of Tool 13, the newly constructed or renovated building, grounds, electrical components, and piping elements will be fully inspected and ready to be put into operation by a trained Station Supervisor. A checklist for identifying a qualified Station Supervisor is presented in Tool 14.

Tool 13 does not include detailed information for the water treatment system. This information is best provided by the manufacturer and / or the installer of the system.

AUDIENCE

This Tool is for use by the Safe Water Committee and the other Safe Water Station partners as a simple set of diagrams and checklists for them to use to ensure that the Safe Water Station meets international safety and operational requirements.

PRE-REQUISITES

Before this Tool can be used, the Safe Water Committee should have a full understanding of the building code requirements that must be met locally. These requirements should be incorporated into the technical inspection checklists provided in Tool 13 to provide a document to guide their oversight of the installation of the Safe Water Station. Before beginning to use Tool 13, the requirement of Tools 10 through 12 should be completed so that the Safe Water Station will be fully ready for legal and technical operation upon completion of the civil works. If necessary, the Safe Water Committee should engage the services of an experienced contracting and construction professional to perform due diligence on all aspects of building construction or upgrading.

MATERIALS NEEDED

No special materials are needed to implement Tool 13. The most important skill that will be applied is the ability to understand the necessary elements of Safe Water Station construction and operation, so that the Operator and the Safe Water Station partners know that they are receiving a well-designed and constructed facility.

MATERIALS CONTAINED IN THIS TOOL

This Tool consists of five pieces. The first is a simple schematic that illustrates graphically the complexity of the civil works of the Safe Water Station and how they must work smoothly together to provide safe drinking water. The second piece illustrates key components of the exterior of the Safe Water Station. It is based on the experience of the Safe Water Network and shows how to lay out a customer-friendly facility that provides for smooth access to the Safe Water Station, hygienic collection of safe drinking water, and convenient observation of the Station and collection of revenue by the Safe Water Station Operator. The third, fourth, and fifth pieces of the Tool are checklists for the Safe Water Station Partners to use to inspect the quality and completeness of the civil works before preparing to open the Safe Water Station for commercial operation. These checklists are based on international construction inspection standards applied in the United States, but they are fully applicable anywhere in the world to ensure the top-

quality construction of the building, the grounds, the electrical connections, and the piping installation at the Safe Water Station.

HOW TO USE THE TOOL

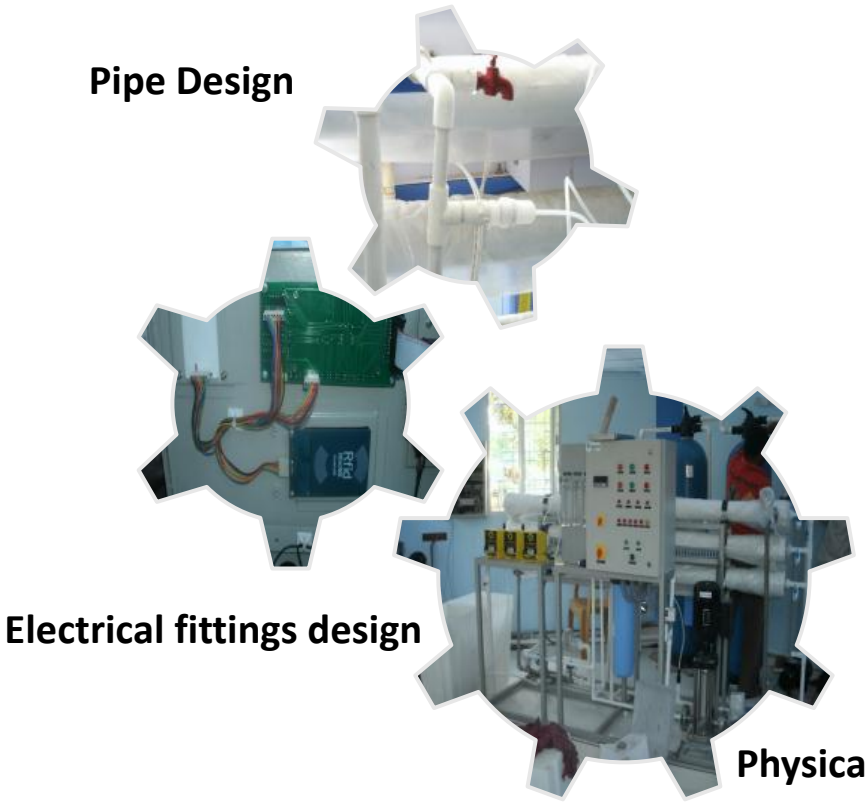
The first piece of the Tool illustrates graphically the complex inter-dependence of the civil works of a Safe Water Station. It should be used by the agency / organization in discussions with the other Safe Water Station Partners as necessary to give them an appreciation for the technical nature of the Safe Water Station, how each component must be in top working order to support the others, and to ensure that the Partners have – or can access – the skills necessary to operate and maintain the Safe Water Station.

The second piece of the Tool is for use by the Safe Water Station Partners in laying out the front exterior of the Safe Water Station. This piece highlights the customer flow from their entry into the grounds of the Safe Water Station until they purchase and are ready to take home their safe drinking water. The customer flow is important to maintain a sense of order around the Station, to ensure that each customer is provided with safe and hygienic drinking water, and to allow the Station Supervisor to maintain control over customer traffic and their payment for containers of safe water. As shown in the diagram, customers enter the grounds of the Station through a controlled entry pathway. Their first stop is at a sink where each customer is required to wash her or his hands with soap and water. After completing this step, each customer rinses their drinking water container with a dilute chlorine solution to disinfect the inside of the container before it is filled with treated water. After completing this rinse, the container is washed with clean water to remove any remaining chlorine that might cause bad taste in the treated water in the container. Next, the container is ready to be filled with treated drinking water, and the customer passes the Supervisor's Counter to pay for the purchased water before leaving the grounds of the Safe Water Station through a controlled exit. The location of each step-by-step component must be planned for in advance of the construction of the Safe Water Station. The location of the sink, for example, may require the installation of piping to provide water to the sink.

The remaining pieces of the Tool are to be used during and after construction of the Safe Water Station. They are to be used to monitor and inspect the quality and completeness of the civil works. The Building and Grounds Checklist is used to determine that the building itself provides sufficient space, supports easy cleaning, and is clean. It is also used to determine that the area around the building are well planned to support customers and prevent complication that might be caused by rainfall or heavy customer traffic. The Electrical Checklist is to be used to ensure that sufficient electricity is available in many locations inside the Safe Water Station and to ensure that all electrical installation are safely put in place – particularly the electrical panel where the electricity from outside the building is brought into the Safe Water Station. The Piping Checklist is used to inspect that all pipes, valves, and connections are in working order and are not leaking. These checklists should be consulted throughout construction and finally used to guide complete inspection before acceptance of the civil works.

The Complex Interdependence of the Civil Works of a Safe Water Station

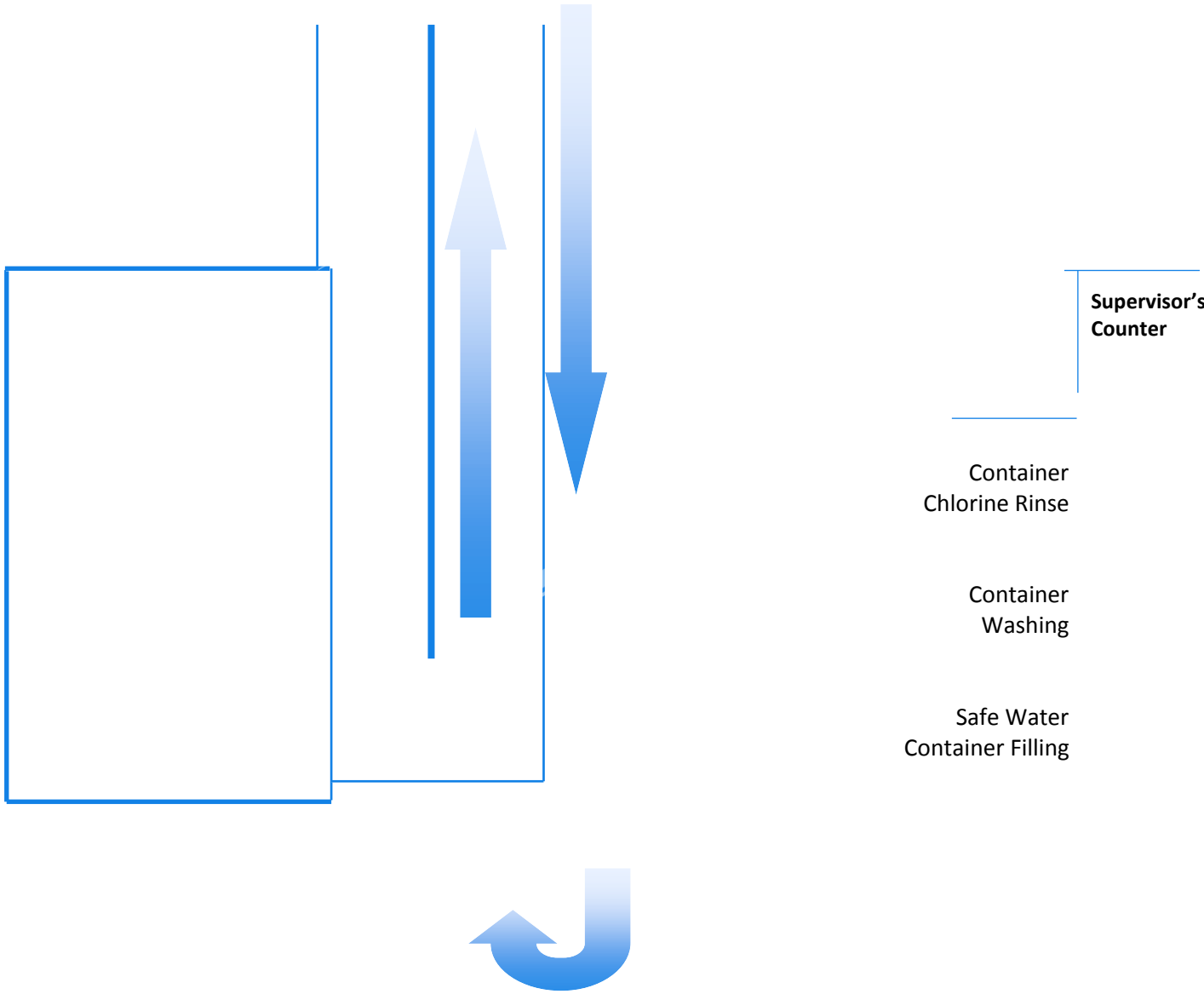
The civil works of a Safe Water Station include many complex devices that all work together to access, treat, and produce a steady and safe supply of drinking water. The civil works inside the Safe Water Station include the complex machinery for producing flow and completing treatment. Each depends on the careful installation of piping, electrical supply, and the machinery itself. The many components of the Safe Water Station work together to provide long-lasting water to the community. This is illustrated in the picture below.



Safe Water Station

CUSTOMER FLOW DIAGRAM FOR A SAFE WATER STATION

The Safe Water Station must be customer-friendly if it is to support the sale of water to the community. Part of this is organizing the flow of customers through the Safe Water Station so that they are reminded of good hygiene practices and have the ability to disinfect their water collection container before treated water is put inside. It is also important to provide easy oversight of the entire Station by the Station Supervisor to ensure that no mischief occurs while customers visit the Station. Customers enter in one pathway and follow the pathway illustrated by the arrows to wash their hand, disinfect their container, fill their container, pay for their water and conveniently exit the Safe Water Station as illustrated below.



Building and Grounds Checklist

Engineering drawings of the building and the grounds should be prepared that are consistent with local government building regulations and standard engineering practice. During and after construction, the civil works should be regularly inspected to make sure that the following basic criteria are met:

___ Reinforced concrete foundation is constructed for the untreated and treated water storage tanks is placed atop well-compacted soil

___ Space is available for at least two water storage tanks typically 5,000 liters each

___ Minimum 400mm thick reinforced concrete floor is put in place for the entire Safe Water Station

___ 2m wide double door arrangement at entry

___ Glass in all windows

___ Security bars on all doors and windows (as deemed appropriate)

___ 1.5m x 2.5m open space is available for installation of the water treatment works

___ If using reverse osmosis treatment, include space for sand filter and two carbon filters as directed by the manufacturer

___ Adequate space for chlorine dosing system including easy access to the system and a desired safe distance between the dosing system and all Station operations

___ Floor tiling and wall tiles up to a height of 1.5 meters for ease of cleaning

___ The ground surrounding the Safe Water Station slopes away from the building so that rainwater does not run into the base of the building

___ An elevated and permanent walkway is installed so that customers are not affected by mud or slippery ground conditions

___ The building is equipped with gutters, downspouts, and channels that control rainwater and keep customers as dry as possible

Electrical Checklist

Reliable and safe electricity is the blood of a Safe Water Station. It keeps the pump running which provides the Station with a regular water supply. It provides power to each component of the Safe Water Station. As shown earlier in this Tool, each component is a necessary unit to the operation of the Station. None can be out of working order or the entire Station fails. Electricity can also kill or harm the civil works of the Safe Water Station. Therefore, it is particularly important that the electrical system of the Station be installed to the high standards. During and after construction, the electrical network of the Safe Water Station must be inspected to ensure that it meets the following criteria:

___ Electrical power available to bore well pump and backup feed pump, if provided

___ Electrical panel containing working fuses and is located in a secure but accessible location

___ Electrical power is provided to at least three wall sockets inside the Station

___ Electrical power is provided to at least one ceiling fan inside the Station

___ Electrical power is provided to at least one exterior light fixture to support the security of the Station

___ All electrical wiring is attached to wall and ceilings so that no loose wires exist

___ No bare electrical wires are visible anywhere in the electrical connections

Piping Checklist

It is very simple for a qualified installer of pipes and piping equipment to create a leak proof and well-designed piping network. The principal criteria for the piping network are that it has no leaks; it has enough in-line valves that each component of the Safe Water Station can be independently isolated and removed if necessary without creating flooding, and that each valve and in-line equipment be accessible and easily operated by the Supervisor of the Safe Water Station. During and after construction of civil works, the following should be inspected:

___ An appropriate diameter line has been installed equipped with ball valve between the bore well pump and the storage tank for untreated water. In this way, the water flow to the Station can be completely turned off or diverted if necessary

___ Appropriate diameter lines equipped with ball valve and non-return valves are installed between the storage tank for untreated water and the pumps feeding treatment works

___ At least two pumps – one primary and one reserve – are installed in line between the storage tank for untreated water and the treatment works

___ Piping from the chlorine-dosing tank to the treatment works is installed in accordance with the engineered design of the treatment works

___ Appropriate diameter line equipped with a ball valve and a non-return valve is installed between the treatment works and the storage tank for treated water

___ At least five lines each equipped with a ball valve are installed from the storage tank for treated water to the customer access point

___ Water flow meter (with access) placed in-line between the treatment works and the storage tank for treated water (if purchasing water from a service provider, an additional water flow meter must be placed in-line before the storage tank for untreated water)

PURIFY MODULE: TOOL 14

Choosing a Station Supervisor

PURPOSE

The purpose of Tool 14 is for the Safe Water Station Partners to determine that they are committing to a day-to-day Station Supervisor who is capable of completing all of the tasks required to run a Safe Water Station. After completing Tool 13, the civil works are ready to be put into operation. But, before this is done, it is necessary to ensure that the Safe Water Station can be operated and maintained efficiently. Tool 14 provides the Safe Water Station Partners with the core elements that a Station Supervisor must master before the Station can be put into full commercial operation. The Tool is to be used to ensure that the Supervisor has the basic skills necessary to run a Safe Water Station. If the Supervisor passes this general examination, she or he will receive more detailed hands-on training during the Safe Water Station Pilot Run described in Tool 16.

Under the community-led management model, the Safe Water Committee selects the Supervisor and a backup, if desired, from within the village and decides on the salary and benefits for the Supervisor. Under the entrepreneur-led management model the entrepreneur does this selecting. In either model, it is critical that the Safe Water Partners know that the Supervisor has the basic skills and broad understanding necessary to run the Safe Water Station before it is opened for commercial operation. Because the Safe Water Station is a sophisticated operation that must be built on a foundation of community-wide service provision, it is recommended that the Supervisor and backup have the following characteristics:

- At least an eighth pass;
- Willingness to learn and serve;
- Enthusiasm; and
- Community acceptance.

Following the questions and guidelines presented in this Tool, the Safe Water Partners will gain confidence that they are putting the Station in the hands of the right Supervisor.

AUDIENCE

This Tool is for use by the Safe Water Station Partners to evaluate whether the skills and ambitions of proposed Supervisors align with the needs of the Safe Water Station.

PRE-REQUISITES

This Tool is only useful if each of the previous Tools has been applied and their objectives have been met. In addition, before using this Tool, the Supervisor of the Safe Water Station should have been nominated by the Operator to the Safe Water Station Partners. The Operator should nominate at least one individual, but preferably more than one, who will provide daily supervision over all aspects of Station operation, marketing, record keeping, and customer service.

MATERIALS NEEDED

No special materials are needed to use the Tool.

MATERIALS CONTAINED IN THIS TOOL

The Tool is a simple guide to be used by Safe Water Station Partners to evaluate the skills and capacity of prospective Station Supervisors. It is one page presenting the critical characteristics of a successful Supervisor and a few key questions that Partners can use to better understand the relevant skills and knowledge of the candidate Supervisors.

HOW TO USE THE TOOL

Proper operation and management of the Safe Water Station is very important to ensure its desirability to customers and their contribution to health improvement. Several items cannot be tolerated at a Safe Water Station: water leaks, broken hardware, unhygienic interiors and surroundings, lack of availability of soap for customers, and lack of use of disinfectants for cleaning.

In order for Safe Water Stations to be effective demonstration hygienic facilities, the Station Supervisor must have proper knowledge about hygiene, and Safe Water Station management and maintenance. This Tool presents the core characteristics that a Station Supervisor must possess and contains several questions that Safe Water Station Partners can use to get to know any proposed Supervisor in interviews or in less formal settings. Using this Tool, the Safe Water Partners will be able to informally determine whether candidate Supervisors can:

- Understand what constitutes a hygienic Safe Water Station;
- Recognize the importance of maintaining a hygienic Safe Water Station;
- Identify health problems related to contaminated water and poor hygiene;
- Use computers and other sophisticated equipment;
- Apply basic principles of mathematics to monitor technical operations;
- Know the rules and regulations of Safe Water Stations;
- Keep necessary financial accounts for Safe Water Station income and expenses; and
- Operate and maintain a hygienic Safe Water Station.

If the candidates for Station Supervisor can provide these skills and have the personality necessary to run and grow a business, then they should be acceptable to the Safe Water Station Partners and fill the position of Station Supervisor as the Station is put into commercial operation using the Tools in the next Module: Sell.

Supervisor Assessment Checklist

A Station Supervisor needs to have a broad range of abilities. A qualified Station Supervisor needs to demonstrate technical understanding, organizational skills in administration and record keeping, in the connections between hygiene and health, and have a personality that is driven to provide customer service. The core traits a Station Supervisor must demonstrate are shown in the following figure:

Capacity to Manage Sophisticated Technical Operations

- Hands-on experience with operation of equipment paying attention to their functions, specifications, possible pitfalls and troubleshooting
- Knowledge of telecommunications equipment and computers
- Familiarity with key water quality parameters
- A commitment to following standard practices and protocols

Capacity of Administer Funds and Paperwork

- Interest in maintaining operational and sales records
- High ability in accounting, filing, and timely record keeping
- Track record of delivering daily, weekly, and monthly written reports
- Mathematical skills relevant to calculating water demand and supply
- Daily money handling and sales reporting

Capacity to Demonstrate and Teach Good Hygiene

- Willingness to be responsible for fundamentals of facility cleanliness
- Knowledge, practice, and communication of key hygiene behaviors

Capacity to Serve Customers

- Willingness to interact with people from all backgrounds
- Natural promoter and salesman
- Outgoing and inviting personality

Key Questions to Ask a Potential Station Supervisor

- What are the key hygiene practices that should be done inside the Safe Water Station?
- What is your experience handling technical equipment according to specifications?
- What experience do you have completing necessary tasks regularly and on time?
- What is the importance of reporting out daily sales? Monthly sales?
- What do you know about water quality, water standards, and the health effects of water?
- Do you enjoy acting as a guide to tourists and entertaining visitors?

Introduction to the Sell Module

The Tools in Module 5 move the agency / organization and its Safe Water Station Partners through the implementation of a household baseline survey, inauguration of the recently completed and tested Safe Water Station, and the forward-looking identification of a small selection of key messages that will form the center of the Partners' communication with customers, prospective customers, and influential people in the community and the region.

Use of the first Tool in this Module, Tool 15, the Household Survey Form, is critical to establish initial conditions from which change and improvement can be measured over time in a "longitudinal study" approach. The Household Survey Form is only 5 pages in length, but it is designed to collect key information that will provide statistically significant findings on the impact of widespread use of safe drinking on the health and livelihoods of households. The water, sanitation, and hygiene (WASH) sector globally has never gathered comparable data across locations, so regular use of this form by multiple partners as Safe Water Stations increase in number will provide a highly valuable – and currently non-existent – data set on the impacts Stations generate in communities.

Tool 16 guides the Safe Water Partners through a rigorous review of the construction and operations of the Safe Water Station during a one week Pilot Run before the Station is opened for commercial operations. The Safe Water Station Pilot Run Checklist is adapted from facility inspection forms used in the United States before occupancy permits or other permits to operate are issued. The Checklist is used to ensure that the grounds, building, and technical installations of the Safe Water Station are each completed according to plans and specifications and will support hygienic and professional operation of the Station.

Putting in place the Decorations and Promotion using Tool 17 is the beginning of the marketing and communication to create demand for the Safe Water Station. Using Tools 1 through 16, the focus has been on the inside operations of the Safe Water Station. But, the outside displays and decorations are equally important to enticing customers to visit, become members of, and purchase water from the Safe Water Station. This Tool provides examples of the promotional signs and decorations used in Safe Water Network locations to guide new Stations and stimulate local creativity that uses the full attributes of the Station to communicate information and hygiene promotion messages to villagers and customers.

In support of the customer generation initiated using Tool 17 is the planning and conduct of the Inauguration of the Safe Water Station. The Inauguration should have a festival atmosphere, reward those who collaborated to make the Station a reality, and entice customers to join and purchase drinking water from the Station. Tool 18 provides ideas to guide the local planning of a major Inauguration event that is the official launch of the demand creation activities that promote the benefits of the Safe Water Station and establish its customer base.

Finally, after Inauguration, it is time for the Safe Water Partners to use Tool 19 to begin the strategic planning of their communication and demand generation activities. Using Tool 19, the Partners hold the Fifth Village Meeting to communicate the "truths" behind several drinking water "myths" that the Safe Water Network has seen block customers from purchasing water from the Safe Water Station and to identify the small, core set of messages that will be part of all communication and activities conducted to create demand and customers for the Safe Water Station across the community.

In the Safe Water Network's experience, the tasks in this Module can be completed within 90 days of the original entry of the agency / organization into the community. The Tools to guide these next steps that place the Safe Water Station into operation are presented on the following pages, and the expected outcome from the use of each are introduced in Figure 1. In this Module, the book is closed on the current conditions of the village and a vision is created that directs the village into its new healthier future.

Figure: The Tools in the Sell Module of the Safe Water Station Local Operating Unit

The Safe Water Station Local Operating Unit

screening > community > 

Tool Kit Modules →	
Sell Module Tools:	Outcome
15. Household Survey Form	**Surveyors are trained and statistically-valid data are collected to describe the community status before the introduction of safe drinking water**
16. Safe Water Station Pilot Run	**The operations, environment, and facility of the Safe Water Station are tested and inspected during one week of simulated operating conditions**
17. Decoration and Promotion	**An enticing visual display of information is established on the outside of the Safe Water Station to enlist customers and promote key hygiene behaviors**
18. Inauguration	**The commercial operation of the Safe Water Station is launched through a highly visible, fun, and participatory week-long series of Inauguration activities**
19. Fifth Village Meeting	**The community learns "truths" to counter "myths" about safe drinking water and identifies the core messages and target audiences of its communication for demand creation**

SELL MODULE: TOOL 15

HOUSEHOLD SURVEY FORM

PURPOSE

After the Safe Water Station is ready for operation and the Operator has a qualified Station Supervisor in place, the next step is to conduct an "as-is" assessment also called a Baseline Assessment. This Tool provides the questionnaire to use in conducting a household survey to complete this Assessment. In order to measure improvements over a period of time, the Village Partner and the Safe Water Committee should lead the conduct of a Baseline Assessment and later Impact Assessments annually using the Household Survey Form.

A well-designed household survey that is properly implemented generates necessary information of sufficient quality and accuracy with speed and at a relatively low cost. Household surveys are used for collection of detailed and varied socio-demographic data pertaining to conditions under which people live, their well-being, activities in which they engage, demographic characteristics and cultural factors which influence behavior, as well as social and economic change.

The Baseline Assessment measures and analyzes the social, economic, and health situation of the villagers at the time of the launch of the Safe Water Station. Impact Surveys compare annual outcomes. These Surveys compare the outcomes against the findings of the previous year to see if the expected outcomes were achieved. This comparison verifies the effectiveness of the Safe Water Station in its core objectives: (1) reducing water-borne diseases and (2) improving the livelihoods of the community.

AUDIENCE

This Tool is for use by the Village Partner and Safe Water Station Committee members. They will need to provide the instruction necessary to surveyors to properly use the Tool in the field.

PRE-REQUISITES

Before using this Tool, four activities should be completed. First, the Tool should be translated into an appropriate local language used by the Safe Water Committee. If possible, after translation, the Tool should be independently translated back into English so that the agency / organization can confirm that an accurate translation was performed. Second, the agency / organization, Village Partner, and Safe Water Committee should review each item in the Tool and ensure that there is a shared understanding of the information to be collected. Third, surveyors must be trained in the use of the form in the village. Fourth, multiple copies of the Form must be made to take to the field – one Form is used to collect information from a single household. For example, in a community of approximately 800 households, over 200 copies of the Form will be needed.

Before preparing for the survey, it is necessary to establish the sample size – the number of households that need to be surveyed to obtain statistically valid findings from the survey. In the case of relatively small rural villages containing on the order of one thousand households, the sample size can be calculated using the following formula:

$$\text{Sample size} = [Z^2 \times (p) \times (1 - p)] / c^2$$

Where,

Z = "Z value" (typically 1.96 for a standard 95% confidence interval)

p = estimated prevalence of diarrhea in the community (50% or 0.5 is often a fair number)

c = confidence interval or margin of error (e.g. $\pm$ 5% = 0.05)

Alternatively, the Safe Water Station Partners can use the sample size calculator provided at no cost at http://www.surveysystem.com/sscalc.htm.

After a sample size is calculated, it is imperative that the Partners begin extensive communication and preparation with leaders in the village to be covered in the survey. To begin, the objectives of the survey should be uniformly understood. There should be a clear statement of the desired information, and a precise description of the population and geographical coverage. It is also necessary at this stage to agree how the results will be used and what budget will be available for the survey. Clearly defining the budgetary constraints will facilitate successful planning and execution of the survey.

It is also very important that stakeholders, the various users and producers of statistics, be involved in defining the objective of the survey as well as its scope and coverage. These consultations help to establish consensus on what data are needed, the form in which data are required, levels of disaggregation, dissemination strategies, and frequency of data collection.

The Safe Water Station Partners should be aware that some surveys have had limited success partly due to high non-response owing to refusals of households to participate in the survey. Therefore, it may be incumbent upon survey organizers to mount publicity campaigns for the survey. Experience has shown that publicity can play an important role in soliciting cooperation from respondents. Different approaches to publicity can be adopted depending on prevailing circumstances and typical means of local communication. Radio, television, newspaper messages, and posters are among frequently used approaches. It may also be necessary to arrange meetings with local opinion leaders in selected areas. During such meetings, people would be briefed on the objectives of the survey, and leaders would be requested to persuade people in their respective areas to provide responses to the interviewers.

An interviewer is at the interface with the respondents. He / she is the representative of the survey organization who is in most direct contact with the respondent. The selection of an interviewer should, therefore, be given great consideration and care. An interviewer should be capable of effectively communicating with the respondent. He / she should must also be capable of capturing all the survey information with accuracy and honesty within a reasonable given time.

The selected interviewers should follow instructions and use definitions and concepts as provided for in training provided for use of the Household Survey Form. The main purpose of the training is to bring about uniformity in the interviewing procedures used by all of the people conducting the survey. This is necessary to avoid differing interpretations of the definitions, concepts, and objectives of the survey by interviewers and hence to minimize interviewer bias.

Qualified instructors should be responsible for the training. Such instructors must be well versed in the aims and objectives of the survey. Preferably, they should be part of the survey team carrying out the survey. The interviewers should be carefully instructed on the purposes of the survey and how the results are going to be used. In order for the interviewers to be properly apprised of the objectives of the survey, they have to be well trained in the concepts and definitions used in the Household Survey Form.

It is generally agreed that training is a precursor to effective and successful fieldwork. However, training without proper supervision may not yield the desired results. The success of field surveying requires dedicated, continuous, and effective supervision by staff who are more experienced and better qualified than interviewers. Supervisors should have a full understanding of all aspects of the survey. It cannot be overemphasized that the supervisor is the important link between the data gathering organization and the interviewer.

The supervisor should organize work for interviewers by determining field assignments and locations. The supervisor will review completed work and maintain a high level of commitment to the survey effort by the interviewers. In the Safe Water Network's experience, there is great advantage in having a

relatively high ratio between the supervisory staff and the interviewers. The ratio of one supervisor to four or five interviewers is being suggested as ideal for most household surveys.

As final preparation for the survey, a starting house should be randomly chosen. Then the interval between this household and the next household should be calculated by dividing the total number of households in the survey area by the sample size calculated above. For example, if there are 1000 total households and the sample size is 200, then every 5th household (1000 / 200) should be surveyed. This means that house 1, 6, 11, etc. would be interviewed after house 1 is randomly selected from all of the households in the village. If any household is not available or refuses to be interviewed, then the closest neighboring household should be interviewed before returning to the original pattern of household selection.

MATERIALS NEEDED

In order for the survey operations to be successfully realized, there is always a need to have a well-organized and effective field organization. The Safe Water Station Partners must work together to identify all materials and activities needed to put this organization in place. During implementation of the survey, adequate materials like folders, clipboards, pencils, pencil sharpeners, notebooks and fuel (for vehicles) should be available in adequate supplies along with a sufficient number of copies of the Household Survey Form.

MATERIALS CONTAINED IN THIS TOOL

The Tool is a five-page form on which uniform information can be recorded for each household. It is divided into 6 sections. Section 1 documents a fair and open effort to invite the household's willingness to participate in the survey. In Section 2, the interviewer records basic information about the respondent and the location of the interview. Section 3 collects information that provides a general profile of the household. Section 4 collects qualitative information on the finances of the household and can be used to quantify changes in livelihoods and health expenditure between surveys. Section 5 asks for detailed information about the health challenges of the household. Section 6 summarizes water-related information and tries to identify reasons why households may or may not purchase water from the Safe Water Station.

HOW TO USE THE TOOL

A series of household interviews held at different point in time is referred to as a "longitudinal survey". The Safe Water Station baseline and impact surveys constitute a longitudinal survey where data are collected from the same location over a period of time. The Tool should be used annually and always at the same time of year. Household finances and disease burden can change dramatically with seasons and time of year. The Safe Water Station Partners should be aware that conducting a longitudinal survey is not without risks. The major problem with this type of survey is high attrition rate of respondents from one survey to the next. There is also the problem of conditioning effect where respondents provide answers that they think the interviewers want to hear rather than their own true responses.

The Household Survey Form is used following the personal interview method. This is the most common method used in collecting data through large-scale sample surveys in developing countries. Apart from the usually high response rate resulting from personal interviews, the method is appropriate because of the prevailing high illiteracy rates in some of these countries. The method entails interviewers going to selected respondents collecting information by asking questions. The main advantage of this method is that the interviewers can persuade (through motivation) respondents to answer questions and can explain the objectives of the survey. Further, in using the personal interview method, there is greater potential for collecting statistical information on conceptually difficult items that are likely to yield ambiguous answers without personal interviewing.

The following are some of the limitations in using the personal interview method which the Safe Water Station Team should be aware of and work to plan for:

- Different interviewers may give different interpretations to the question thereby introducing bias in the survey results. For this reason, standardized and rigorous training of interviewers is necessary.
- In the process of probing during the interview, some interviewers may suggest answers to respondents. During interviewer training, this practice should be brought to light and minimized.
- Personal characteristics of the interviewer may influence attitudes or respondents. For example, respondents may provide different answers depending on the ages, gender, race, or sexual orientation of the interviewer. For this reason, both the name of the responder and the interviewer are written down in Section 2 of the Household Survey Form.
- Interviewers may read question wrongly because of the divided attention of interviewing and recording. Both training and revisiting approximately 10% of the interviewed household to verify the information collected are therefore important.

Collectively the limitations listed above are the main sources of so-called interviewer bias, studies of which have shown can cause serious errors in surveys. The following points should be taken into consideration when asking questions to respondents:

- The interviewer should clearly understand the purpose of each question as explained during interviewer training. It is important that interviewers constantly refer to the content of their training.
- Experience has shown that it is best for the interviewer to follow the sequence of questions in the Household Survey Form. In most questionnaires careful thought is given to the ordering of questions, taking into consideration motivation of respondents, linkage of topics, facilitating memory of the respondent's past events, and careful posing of the most sensitive questions.
- Interviewers should by all means refrain from suggesting answers to respondents.
- All questions should be asked. In this way, item non-response is minimized.
- No item in the Household Survey Form should have a blank space unless it satisfies any skip pattern presented in the Form – see Section 5, question B. If a question is not relevant to a particular respondent, then a comment should be included. Such an approach assures the survey manager that all questions included in the questionnaire have been administered.

Household Survey Form

Introduction of the purpose of the Assessment to the villager

Narrate: My name is [INSERT NAME OF PERSON LEADING ASSESSMENT QUESTIONNAIRE]. I am working with [INSERT NAME OF ORGANIZATION CONDUCTING ASSESSMENT]. From time to time, we conduct studies on issues relating to health. Presently, we are carrying out a study on water, sanitation, and hygiene in [INSERT NAME OF LOCATION OF ASSESSMENT]. I will be grateful if you would devote some of your time and answer a few questions. Let me assure you that the information given by you will be strictly kept confidential and used only for research purposes. You have complete independence to choose not to answer any of the questions that you do not want to respond to. However, we wish to mention that the information provided by you will be very useful in understanding health conditions in [INSERT NAME OF LOCATION OF ASSESSMENT] and requirements for further improvements in water and sanitation facilities.

Section 1: OBTAINING THE RESPONDENT'S CONSENT				
a. Are you willing to participate in the assessment?	Yes		No	
If "yes", continue. If "no", end interview				
Section 2: BASIC INFORMATION				
a. Village Name				
b. District/State Name				
c. Respondent Name				
d. Respondent Address				
e. Respondent Gender	Male		Female	
f. Interviewer Name				

safe water network

Section 3: HOUSEHOLD PROFILE

#	NAME	GENDER	AGE	OCCUPATION	EDUCATION	MARITAL STATUS
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

a. Internal reference coding for completing Household Profile information

Gender		Occupation		Education		Marital Status	
Male	01	Not working/Looking for work	01	Illiterate	01	Married	01
Female	02	Work on own farm	02	Literate but no schooling	02	Divorced	02
		Work on own and others' farm	03	Class I to V	03	Separated	03
		Work on others' farm as wage labor	04	Class VI to IX	04	Widow/Widower	04
		Construction labor	05	Class X/SSC	05	Never married	05
		Skilled artisan	06	Diploma	06		
		Factory worker	07	Graduate	07		
		Self-employed business	08	Post-graduate	08		
		Government service	09				
		Private service	10				
		Professional	11				
		Social worker	12				
		Student	13				
		Housework/housewife	14				
		Unable to work	15				
		Handicapped, not working	16				
		Other (specify)	17				

b. Does your household have an individual latrine?	Yes		No	
c. Does your family own this house?	Yes		No	
d. Does your family pay rent for this house?	Yes		No	

e. What cooking fuel do you mainly use in your household?

#	Cooking fuel type	Main
1	Wood	
2	Crop residues/leaves	
3	Dung cakes	
4	Charcoal	
5	Coal/coke/lignite	
6	Kerosene	
7	Electricity	
8	Liquid Petroleum Gas (LPG)	
9	Biogas	
10	Other (specify)	

	Item	Yes	No
f. Would you please tell me the assets that your household own?	Radio	1	2
	Black and white TV	1	2
	Color TV	1	2
	Cable/satellite connection	1	2
	Music system	1	2
	Bicycle	1	2
	Two wheeler	1	2
	Four wheeler/car	1	2
	Tractor	1	2
g. Does your household own any of the following?	Hen	1	2
	Goat	1	2
	Sheep	1	2
	Buffalo	1	2
	Cow	1	2

Section 4: HOUSEHOLD FINANCES

a. Would you please tell me your monthly total household income?		US$ equivalent
b. Please tell me your typical monthly expenditure on the following.	Item	Amount Spent (US$ equivalent)
	Food	
	Clothing	
	Shelter (including repairs)	
	Education	
	Health care	
	Savings	
	Debt payment	
	Transportation	
	Entertainment/alcohol/tobacco	
	Water and/or sanitation	
	Other (specify)	

Section 5: HEALTH-RELATED SERVICES AND CONCERNS

	Facility	Tic as Many as Available
a. Please tell whether the following facilities are available within your village	Community health center	1
	Child monitoring health post	2
	Untrained doctor/nurse	3
	Traditional medicine provider	4
	Private clinic/hospital	5
	Chemist shop	6
	Shop selling medicines	7

	Facility	Travel Cost (US$ equivalent)
b. Please tell the average travel cost by public transport for a round-trip to/from the nearest…	Health center	
	Community health center	
	Child monitoring health post	
	Private clinic	
	Government hospital	
	Chemist shop/medical store	
	Diagnostic laboratory	
	Private hospital	

Narrate: Now let me ask you some questions on the health status of you and your family members. I will read out some of the health care issues / diseases.

c. Please tell me whether you or any of your family members have experienced the following health problems in the past 3 months. If your family did experience these health problems, please tell me where you went for treatment, and why you went to that person / location for treatment. (RECORD THE REASON

VERBATIM)

Disease	Yes	No	Source of Treatment	Reason for Treatment
Diarrhea in children	1	2		
Cholera	1	2		
Typhoid fever	1	2		
Dysentery	1	2		
Skin infections	1	2		
Allergies	1	2		
Cold	1	2		
Pneumonia	1	2		
Flu	1	2		
Respiratory problem	1	2		

Internal reference codes for Source of Treatment

1	Health center
2	Home
3	Community health center
4	Child monitoring health post
5	Private clinic
6	Government hospital
7	Chemist shop/medical store
8	Other (specify)
9	Did not seek treatment YYYYYY

d. Please tell me the amount you have spent for consultation, medicines, and laboratory tests for these health problems during the past year.

Disease	Amount Spent (US$ equivalent)		
	Consultation	Medicines	Laboratory Tests
Diarrhea in children			
Cholera			
Typhoid fever			
Dysentery			
Skin infections			
Allergies			
Cold			
Pneumonia			
Flu			
Respiratory problem			

e. Apart from expenses incurred, how much of your household income did you/your family lose during the sickness in your family _____ (US$ equivalent)

f. What do you think are the major reasons for your family members experiencing the health problems you have indicated? Please think for each health problem and tell me the reasons

Disease	Dirty/Polluted Water				Other Reasons for Disease
Diarrhea in children	Yes		No		
Cholera	Yes		No		
Typhoid fever	Yes		No		
Dysentery	Yes		No		
Skin infections	Yes		No		
Allergies	Yes		No		
Cold	Yes		No		
Pneumonia	Yes		No		
Flu	Yes		No		
Respiratory problem	Yes		No		

Section 6: WATER-RELATED INFORMATION

a. Please tell me the name or describe for me the location and type of your water source:

a1. Does you household use water from this water source?	Yes, regularly	Yes, occasionally	Only in dry season	Only in rainy season	Never				
a2. Please tell me why your household does NOT get water from this water source	Unsafe / bad for drinking and cooking	Inconvenient	Expensive	Insufficient supply	Other alternative	No such service	Other (specify)		
a3. Please tell me the main reason your household DOES use water from this water source	Safe / good for drinking and cooking	Convenient	Cheaper	Sufficient supply	No alternative	Other (specify)			
a4. Please tell me who mainly collects water for your household from this water source	Self	Wife	Husband	Girl child	Boy child	Father	Mother	Other relative	Servant	Other (specify)
a5. Please tell me what kind of container is mainly used to collect water	Narrow-mouth water pot	Broad-mouth water pot	Open tin container	Bucket	Jerry can	Other (specify)			

Narrate: Now I would like to tell you about a facility that would be providing safe and pure water to the villagers at a very reasonable price.

b. If there is a facility in your village where safe and pure drinking water is supplied, would you be willing to use this facility?	Yes **CONTINUE**		No **NEXT QUESTION AND END SURVEY**	
c. If you would NOT be willing to use this facility, please tell your reason				
d. If there is a facility in your village where safe and pure drinking water is supplied, how much would you be willing to pay for a 20 liter container of safe water?	US$ equivalent			
e. Would you be willing to pay an additional amount if you could have water delivered to the door of your household?	Yes		No	
f. If you WOULD be willing to pay an additional amount for water delivered to the door of your household, how much would you be willing to pay for a 20 liter container of safe water?	US$ equivalent			

g. If you WOULD NOT be willing to pay an additional amount for water delivered to the door of your household, please tell me why you would not be willing	Fetch it myself 1	Have servants 2	Have bicycle 3	Family may not like it 4

h. On what schedule would you be willing to pay the bill for buying safe water?	As and when required 1	Weekly payment 2	Monthly payment 3	Other (specify)	
i. The facility that I am talking about provides pure and safe drinking in 20 liter containers. Do you feel that the quantity per water container is:	Very appropriate 1	Appropriate 2	Somewhat appropriate 3	Not appropriate 4	Not at all appropriate 5
j. If 20 liter containers are either "Not appropriate" or "Not at all appropriate":	Why do you think this way?				
	In your opinion, what would be a better volume of the container?				

k. How do you think you would collect water from the facility where safe and pure drinking water is supplied?	By walk – self	By walk – other family member	By walk – servant	On bull cart	Cycle/ Tricycle	Vehicle – scooter / motor bike	Other (specify)

SELL MODULE: TOOL 16

SAFE WATER STATION PILOT RUN

PURPOSE

The Safe Water Station is operated in pilot mode for one week after completion of installation, construction, and operator training. During this Pilot Run, the Safe Water Station is fully operated under different conditions and settings. Modifications to equipment and operating practices are made as required. Records are kept as if the Safe Water Station was under full operation. The Safe Water Station is ready for public use once the Pilot Run is complete and the changes incorporated the operation and / or management of the Safe Water Station.

Various checks are conducted during the Pilot Run including an overall inspection of the building and its yard and checking of source and treated water quality, performance of the treatment technologies, and operator skills. This Tool is a simple checklist of relevant questions covering these topics that should all be answered "yes" for a well-run Safe Water Station.

AUDIENCE

This Tool is for use by the Village Partners – the overseeing agency / organization, Village Partner, and Safe Water Station Committee – in collaboration with the Operator, if other than the Committee, and the Station Supervisor. Each of these stakeholders must agree on the purpose, importance, and criteria of a "yes" response to each question. When these agreements are complete and adequate operating records are being kept – as determined by the treatment technology and the financial management needs of the Safe Water Station – then the Station Supervisor should be allowed to open the Station to customers.

PRE-REQUISITES

This Tool is the final hurdle for the Operator of the Safe Water Station to cross before launching commercial operation. Before using this Tool, the purpose of each of the previous 15 Tools must be satisfied. It is timely before using this Tool to ensure that this is the case.

MATERIALS NEEDED

The Tool is a self-guided checklist of necessary aspects of a well-installed Safe Water Station. The only material needed to complete the checklist is a pen or pencil. The materials that may be needed to ensure that a "yes" answer to each question may vary greatly from one Safe Water Station to another.

To fully implement the Pilot Run, it will be necessary for the Station Supervisor to have and be fully familiar with the operation of two pieces of equipment: (1) a handheld measuring device capable of accurately determining the pH and chlorine concentration of sampled water, and (2) a Global Position System (GPS) device to use to geo-locate a variety of aspects of Safe Water Station operation. These items are widely commercially available and will come with their own instruction information. It should be noted that some countries consider GPS devices to be threats to state security. The agency / organization and Village Partner should determine local regulations and restrictions before providing GPS equipment to the Operator of the Safe Water Station.

MATERIALS CONTAINED IN THIS TOOL

This Tool is a two-page form on which uniform information can be recorded. The Checklist is modeled after an inspection report used in the United States for new construction and / or building improvements. The Safe Water Network and its partners in India and Ghana have simplified the Checklist so that it is directly pertinent to the grounds, infrastructure, and operation of a Safe Water Station. The Checklist is divided into 6 sections. Section 1 poses questions about the grounds outside of the Safe Water Station building but inside the Station's compound. Section 2 documents conditions of the building itself. Section 3 is intended to establish the safety and utility of the electrical installations at the Safe Water Station. Section 4 assesses the quality and logical installation of the piping network that moves water through the Station. Section 5 establishes the baseline operational standards of the Station to ensure its proper operation as per design documents and its delivery of high quality drinking water in quantities that will support the commercial operation of the Safe Water Station.

HOW TO USE THE TOOL

The Operator of the Safe Water Station – either the Safe Water Committee under a community-led management model and/or Entrepreneur under an entrepreneur-led management model – should lead completion of the Checklist for oversight and confirmation by the Village Partner and the agency / organization. Over time, the Operator will be responsible for making sure that the answer to each question in the Checklist remains "yes", so she / he has the most to gain be ensuring a full set of "yes" responses during the Pilot Run.

During the Pilot Run, potential corrective measures that may need to be put in place include alterations to the physical elements of the Station, technology improvements, technology operation refinements, and operator retraining or replacement. None should be neglected in the anxiousness to open the Safe Water Station. Each must be addressed until all responses to Checklist questions are "yes" as submitted and confirmed by the signatories at the end of the form – one to submit the Checklist and three to confirm the accuracy of the information. It is suggested that the former be a representative of the Operator and the latter represent the Village Partner, the agency / organization, and the Safe Water Committee if the Committee is not also the Operator.

Safe Water Station Pilot Run Checklist

Section 1: GROUNDS				
a. Is the areas surrounding the Safe Water Station secure, clean, and inviting?	Yes		No	
b. Is the front door of the Safe Water Station easily accessible in any weather?	Yes		No	
c. Is the land around the Safe Water Station sloped away from the building to keep rainwater away from the building?	Yes		No	
d. Is the exterior of the building equipped with promotional displays and logos in appropriate languages that promote use of the Safe Water Station as well as hygiene and health?	Yes		No	
e. Does the operator have access to a hygienic latrine?	Yes		No	
Section 2: BUILDING				
a. Is the floor tiled and walls tiled to 1.5 meters?	Yes		No	
b. Is rainwater from the roof directed to eliminate pooling and mud?	Yes		No	
c. Are the doors and windows secure and equipped with locks for security?	Yes		No	
d. Is there sun cover in the open areas, queue areas, and other customer locations?	Yes		No	
e. Is the building adequately ventilated to control temperature and vapor accumulation?	Yes		No	
f. Is the Safe Water Station equipped with a location for hand washing?	Yes		No	
g. Is there any visible evidence to water damage/leakage to any part of the building?	Yes		No	
h. Is there screening on all windows?	Yes		No	
i. Are all joints around doors and windows properly caulked?	Yes		No	
Section 3: ELECTRICAL				
a. Are all electrical connections installed as per the design documents?	Yes		No	
b. Is the electrical control box in a safe but accessible location?	Yes		No	
c. Is the electricity from outside connected legally and safely to the Safe Water Station?	Yes		No	
d. Are there any exposed electrical wires inside or outside of the Safe Water Station?	Yes		No	
e. Was the installation of the electrical control box performed by a professional electrician?	Yes		No	
f. Does the master breaker in the electrical control box shut off all electricity?	Yes		No	
g. If the treatment systems requires other than standard voltage, is it equipped with a dedicated circuit?	Yes		No	
h. Is the electrical panel grounded to either the main entry water pipe, a separate ground rod, or the main entry electrical conduit?	Yes		No	
Section 4: PIPING				
a. Are all pipes and piping fittings installed as per the design documents?	Yes		No	
b. When in operation, is there any water leaking from any of the pipes or pipe fittings?	Yes		No	
c. Are the pipes and pipe fittings accessible but protected from accidental impact?	Yes		No	
d. Do all ball valves move freely from the open to the closed position?	Yes		No	

Section 5: TREATMENT TECHNOLOGY				
a. Is the technology installed as per the design documents?	Yes		No	
b. During the first week of pilot operation, is the source water quality the same as previously measured?	Yes		No	
c. During each day of the first week of pilot operation, does the treated water meet national standards or WHO standards as appropriate?	Yes		No	
d. During the first week of pilot operation, does the treatment technology generate, on average, 1000 liters of treated water per hour?	Yes		No	
Section 6: DISINFECTION TECHNOLOGY				
a. Is the technology installed as per the design documents and manufacturer's guidance?	Yes		No	
b. During the first week of pilot operation, does the disinfection technology result in contaminant-free treated water prior to sale?	Yes		No	
c. Does the treated water meet chlorine and pH requirements on a daily basis?	Yes		No	

Person Providing Information Date
Signature

Person Confirming Information Date
Signature

Person Confirming Information Date
Signature

Person Confirming Information Date
Signature

SELL MODULE: TOOL 17

DECORATION AND PROMOTION

PURPOSE

Marketing and communication effort are as critical to the success of the Safe Water Station as are the facility, the treatment technology, and the Operator of the Station. These efforts are critical for helping people understand the relationship between untreated water and health, the importance of consistently drinking safe water, and the efficacy of purchasing treated drinking water from the Safe Water Station. Marketing and communication begin with the design of decorations on and around the Safe Water Station that reinforce important aspects of the Station and its operation.

The purpose of this Tool is to provide examples of on-site marketing and communication efforts that have been made by the Safe Water Network and its Village Partners. These are provided to stimulate the imagination and creativity of Station Operators to decorate their Station in ways that promote the sales of safe drinking water to potential customers while also informing them with messages that are consistent with the behavior change communication that will be developed when the Drink Module is applied.

AUDIENCE

This Tool is for use by the Safe Water Station Partners - the overseeing agency / organization, Village Partner, and Safe Water Station Committee – when they make decisions on the content, location, and design of decorations and signs on the outside, but within the grounds of, the Safe Water Station.

PRE-REQUISITES

Before using this Tool, several decisions must be made by the Safe Water Station Partners. These correlate to the examples of decorations provided in this Tool. First, the Partners should design and have prepared a major and significant sign on the outside of the building that announces the presence of a Safe Water Station, its Operator, and each organization that is providing support to its launch and operation. Second, Partners should decide on the hours and rules of operation of the Safe Water Station. These may be negotiated as part of the Memorandum of Understanding signed with the Operator, but they must be established before the Station is put into operation. Third, the Partners must decide on what branding will be done for the water sold from the Safe Water Station to distinguish it from any other water supplies and to reduce counterfeit sales of sub-standard drinking water by others. Fourth, the Partners must determine if it is financially and socially viable to require, or alternatively promote, the use of special containers for the collection and distribution of safe drinking water. If this is determined to be a viable part of Safe Water Station operation, then it is likely to be helpful to promote the advantages of using these containers: having a container that can be easily cleaned and disinfected as part of Station operations and preventing contamination of the treated water during transportation and household use. Fifth, decorations and / or signs at the Safe Water Station can promote the exclusive use of the treated water for drinking and cooking (and not for other general household uses). Finally, decorations at the Safe Water Station can be used to promote the health benefits from the adoption of key hygienic behaviors including use of latrines by the entire family and, perhaps most importantly, Hand washing after using the latrine and before cooking or eating food.

The Safe Water Partners should identify how they will identify and procure the services of the artist(s) to create any decorations. A professional artist could be employed, existing materials used by the Village Partner or governmental health education authorities could be used or adapted, or contests could be held among school children or artists to create designs for decorations and promotions.

MATERIALS NEEDED

The materials needed to implement this Tool are limited only by the imagination and creativity of the Safe Water Station Partners and the operator. At a minimum, paints, the talents of an artist, and a clever understanding of communication in relevant local language(s) are required to create enticing decorations inside and outside the Safe Water Station.

MATERIALS CONTAINED IN THIS TOOL

This Tool presents ideas that have worked for the Safe Water Network in initiating marketing and communication toward the social goals of Safe Water Station: improving health and livelihoods of households and villages through the best use of safe, treated drinking water while validating the investment of meager funds toward the purchase of drinking water.

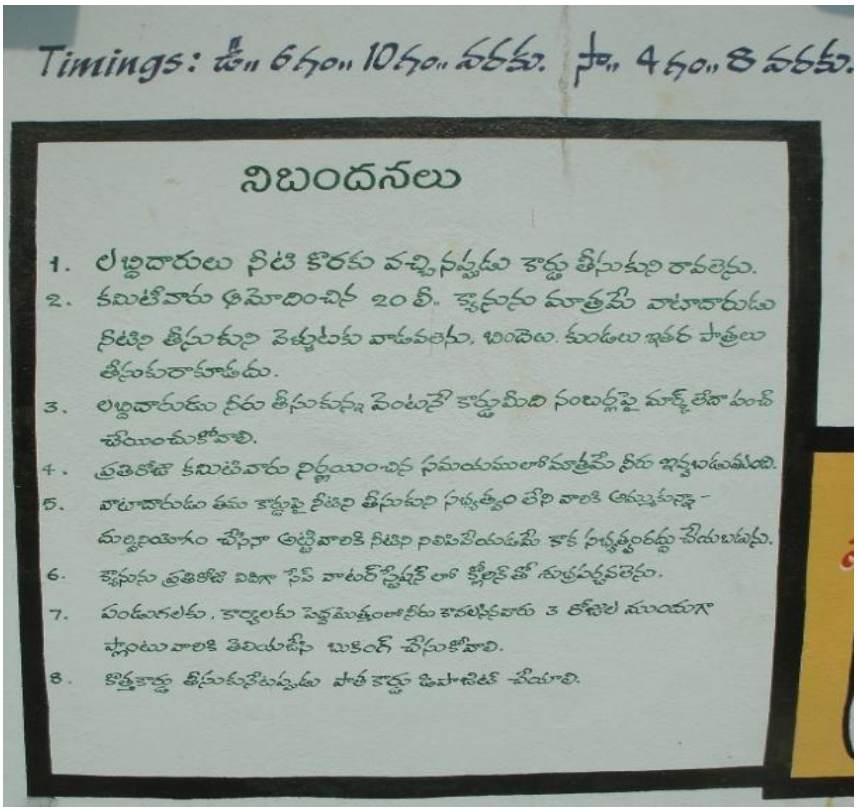
HOW TO USE THE TOOL

The Tool is to be used by the Safe Water Partners and the Operator during the final design of the Safe Water Station. The ideas presented in the Tool should each be considered by the group and those most supportive of generating customers form the Safe Water Station should be prioritized. After locally-specific graphics and messages are determined, then the Partners should prepare cost estimates for each decoration, ensure that adequate funding is available, and engage artists to produce the decorations.

Example Designs of Safe Water Station Decoration and Promotional Displays

Example 1: Above-door sign promoting the Safe Water Station and its supporters

Example 2: Wall painting describing hours and rules of operation



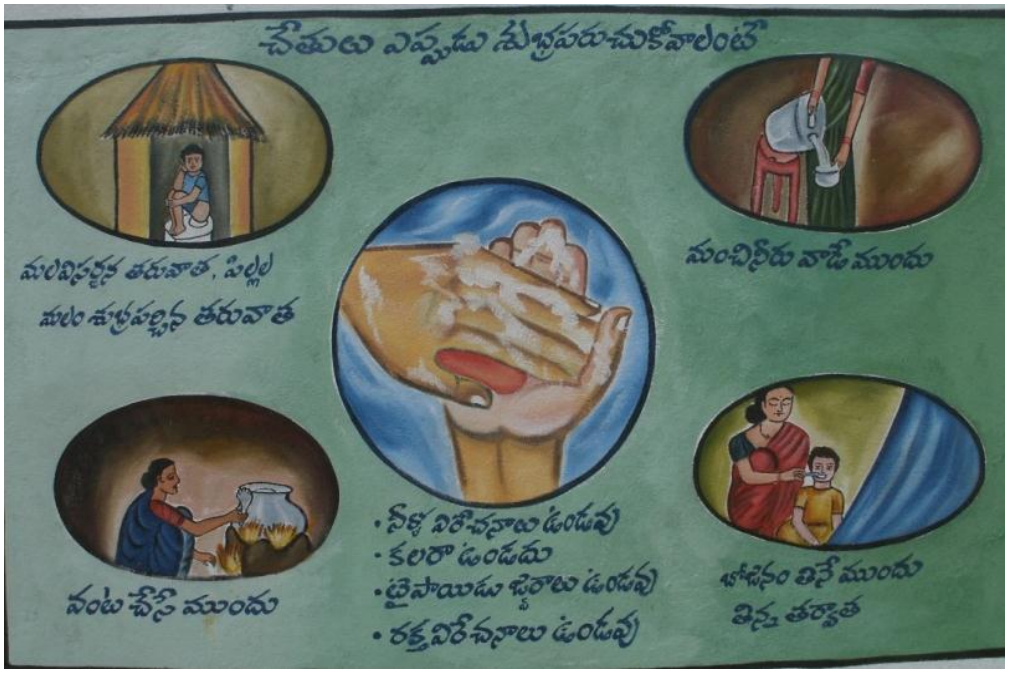
Example 3: Direction Board to Safe Water Station

Example 4: Promotion of Branded Safe Water for better health

Example 5: Promoting Safe Water Storage Containers

Example 6: Encouraging Use of Safe Water only for Drinking and Cooking

Example 7: Promoting Key Times for Handwashing in the Household



SELL MODULE: TOOL 18

INAUGURATION

PURPOSE

Once the construction is complete, the operator(s) is trained, and the pilot run of the Safe Water Station is complete. It is time to formally inaugurate the facility, make it part of the community, and begin promoting the value that the Safe Water Station brings to the community. The Inauguration of the Safe Water Station is perhaps the most important step in the operation of a Safe Water Station. It is a major milestone in the overall lifecycle of the Safe Water Station. Without the successful completion of each previous tool, there would be no Safe Water Station. But, without a successful Inauguration, the early financial viability of the investment would be at risk.

There are many activities that are performed to generate awareness and build demand for the Safe Water Station. This Tool provides ideas for the Safe Water Station Partners and Operator to consider to conduct and Inauguration program that will visibly establish the Safe Water Station as a valued resource and commercial operation in the community.

AUDIENCE

This Tool is for use by the Safe Water Station Partners and the Operator in planning for a highly visible and engaging Inauguration of the completed and piloted Safe Water Station.

PRE-REQUISITES

Before using this Tool, the Safe Water Station Partners should have a thorough understanding of their market in the community. This understanding should be determined using all of the gathered using Tools 15, 9, 6, 5, and 4: the variety of surveys, assessments, and community meetings that set the stage for the Inauguration. Significant differences come into play in introducing an entirely new product onto the market as opposed to simply a new brand of safe drinking water. If the Safe Water Station is a "new product" then attention should be paid at Inauguration to addressing several important considerations.

First, commercial markets in developing countries are cash-poor and risk-averse. In other words, especially at the small kiosk level, potential customers are unlikely to risk their own cash on a new and unproven product such as the product of a Safe Water Station. Second, in locations where credit purchase is not the norm, investment in "up front" promotion – using Inauguration as an important opportunity – help raise initial demand for the product whether as an investment in status or health. In some cases, the Operator may consider providing an initial stock of safe drinking water – perhaps in small, rapidly consumed quantities – at no cost for a "free" trial. Third, the Safe Water Station Operator should be aware that the promotion of safe water purchase may continue to require promotion and uplifting in the community depending on sales of the product, the Operator's entrepreneurial skills, and the maturity of the marketing and distribution chain.

While such efforts are especially important at Inauguration, as the safe water product establishes market position, experience indicates that a consistent push is needed to keep the product in the forefront of consumer minds. These activities are the focus of Module 8: Demand.

MATERIALS NEEDED

The Inauguration of the Safe Water Station is intended to be an event. It need not be limited just to the one day of Inauguration. The Safe Water Network has achieved success with using the week before Inauguration as a time to generate enthusiasm for and attendance at the Inauguration day. Banners, displays, speeches, radio time, vehicle parades, and the widespread engagement of school children have proven to be valuable contributions to successful inauguration. The materials needed for Inauguration are only limited by the energy, creativity, and experience of the Safe Water Partners. All avenues of engagement should be planned for and supported, and the choice of materials will result from this planning.

MATERIALS CONTAINED IN THIS TOOL

This Tool contains only a selection of ideas that the Safe Water Network has used to conduct successful Inaugurations of a Safe Water Stations. A sample Invitation Card is presented. It both shows the Station itself and highlights the innovation and improvements that the Station brings to the community. In the case of this example, the invitation is issued in the name of the local government village head and includes a reference to the Village Partner to support the validity of the Safe Water Station as a new member of the community.

The Village Partners may decide to include visitors and dignitaries in the Inauguration celebration. By using this Tool Kit, a wide range of people from the community, government, the drinking water sector, and funding organizations have participated in creating the Safe Water Station. Representatives from each should be invited to participate in the Inauguration to thank them for their efforts, give them the prominence they deserve for the role each played, and demonstrate to them that their contributions have lead to something real and valued by the community. In many programs, reliance on trusted spokespersons (such as highly placed government personnel, locally known and respected individuals, and national celebrities) and produce champions (such as trained health workers and community leaders) has promoted the efficacy of Safe Water Stations. Local bands, comedy groups, and regional and national government officials have regularly been engaged to support Inaugurations. These endorsements typically enhanced the

Station's appeal as respected and trusted individuals spoke in a local language about the attributes of having and using a Safe Water Station.

HOW TO USE THE TOOL

Inauguration of the Safe Water Station is a very important milestone. This is the first, and possibly most important, opportunity for the Safe Water Committee, the Village Partner, and the agency / organization to promote the importance of using safe water and the benefits provided by safe water and safe storage containers to all communities in the vicinity of the Safe Water Station. It also helps the village gain prominence because it becomes the central point for the neighboring villages for safe water supply. The Inauguration is used to promote the Safe Water Station in neighboring areas of the village.

The Inaugural of the Safe Water Station should be celebrated as one of the festivals in the village. A plan of activities and participants should be developed while the Safe Water Station is being constructed – well in advance of the actual Inauguration day. This Tool only presents a few examples of what can be done on or before Inauguration. The creativity of the Safe Water Station Partners should determine the precise program that would work best in their community and its duration. In the experience of the Safe Water Network, activities – especially involving children – can start up to a week before Inauguration by conducting rallies, street theater, and other events around the village. Using the ideas in this Tool as a guide, a plan of activities should be developed with a cost placed by each. The Safe Water Partners will need to negotiate a budget for Inauguration activities, and all possible resources should be directed in support of this day. Inauguration only happens once, and it sets the stage for a customer base and for future demand generation activities.

EXAMPLES OF CREATIVE IDEAS TO SUPPORT INAUGURATION OF A SAFE WATER STATION

Example 1: Sample Invitation Card

Example 2: Prominence of Visitors and Dignitaries

safe water network

Example 3: Village Participation by Women, Students, and Community Groups

SELL MODULE: TOOL 19

FIFTH VILLAGE MEETING

PURPOSE

The Fifth Village Meeting is intended to remind the community of its achievements so far and begin looking forward to the challenges ahead of maintaining and growing demand for the Safe Water Station. Inauguration of the Safe Water Station was probably the most significant milestone in working with the Safe Water Partners and the community to bring to life a transformative contribution to their community. At this time, Partners, Operator, and Station Supervisor are educated regarding several "myths" that may convince community members to not purchase safe water, and they asked to consider several possible messages that could be adopted to guide demand generation activities, marketing, and communication for the Safe Water Station.

AUDIENCE

This Tool is for use by the Safe Water Station Partners to build the technical capacity of the community and the Station Supervisor and help the community to focus future demand generation activities.

PRE-REQUISITES

Before using this Tool, the Safe Water Partners should meet, review the content of the Tool, and develop a meeting plan that will engage the community and achieve the purpose of this Tool.

MATERIALS NEEDED

Similar to all village meetings, this Meeting will need to be well prepared under the leadership of the Village Partner and the Safe Water Committee with support provided by the agency / organization. In addition, the Safe Water Station should review the content of the Tool to ensure they have a shared and clear understanding of the myths, the truth behind each, the possible messages to use in demand generation, and the importance of limiting the number of messages. With this understanding, the Partners should develop the materials they feel are most useful to communicate with the attendees at the Meeting.

MATERIALS CONTAINED IN THIS TOOL

The Tool consists of two sections. The first presents "Myths that needs to be addressed in promoting the Safe Water Station". These are intended to educate the community on key facts so that they can communicate them clearly throughout the community. The second sections present a long list of possible messages that the Safe Water Partners could adopt to promote the Safe Water Station. This long list is only representation of possible messages. The community can consider others, but by the end of this Meeting should identify 4 that will be used in all demand generation activities in support of the Safe Water Station.

HOW TO USE THE TOOL

The objective of using this Tool is to educate the community regarding the truth behind common myths and to select 4 communication messages that will form the core of communication, marketing, and demand generation activities for the next several months. Section 1 contains the "myths" and their related "truths". These can simply be reviewed with the community at this Meeting in a lecture format. For the presentation of this material, there really is no room for debate. There should be however, adequate time for the addition of other "myths" that the community hears of or knows about, and discussion of the "truths" that the community should know. In Section 1 of the Tool, 6 "myths" are presented that have

commonly surfaced in the work of the Safe Water Network. Each is accompanied by a brief description of the "truth" behind the "myth".

Section 2 contains 3 options for focus. One should be selected as the main health aim of promoting the Safe Water Station. The first pertains to symptoms of arsenic poisoning (throat pain, skin discoloration and other symptoms) or fluoride poisoning (bone weakness and / or deformation, tooth discoloration) – in the community. If arsenic poisoning or high levels of fluoride are found in the source water, and it appears that contamination with these chemicals is of priority in the community, then the importance of drinking water from the Safe Water Station that has been treated with reverse osmosis is or critical importance. If this is a prevailing health problem, then this should be the focus of demand generation activities. If reverse osmosis systems are properly operated, then diarrhea from microbial contaminants will also be reduced. The second option for focus is diarrhea. If chemical contamination is not the priority problem, then messaging in demand generation activities should be focused on the reduction of debilitating and life-threatening diarrheal diseases. The third option for consideration is customer service and a focus on the aged. This could be a highly vulnerable population to disease, and due to physical limitations, they may be reluctant to purchase water from the Safe Water Station. The Operator and the Safe Water Station Partners should make every effort to understand the health needs of their customer base and then select ONE of the highest priority health issues to incorporate into their demand generation activities.

Section 3 presents 6 of the most common reasons that can "drive" people to purchase drinking water from a Safe Water Station: shortening distance, reducing time, saving energy cost, low pricing, improved taste, and local reliability. At the Meeting, the attendees should review these – and any others that they think are reasons for people to purchase water from the Safe Water Station. Through this discussion, they should create a long-list of possible "drivers" to emphasize in demand generation activities. From this long-list, the attendees should choose TWO that they feel will be the most compelling to "drive" customers to purchase water from the Safe Water Station. These two will be combined with the health issue selected above to focus the demand generation activities for the coming 6 months to 1 year.

Section 4 presents 3 examples of payment schemes that could possibly be applied at a Safe Water Station. The first provides a lifetime membership in and access to the Station. This onetime payment is typically used to pay for use of the Safe Water Station. Fully paid members would still need to pay the set fee for 10 or 20 liters of treated water. The second illustrated a commonly used price point for water from the Safe Water Station. This price needs to be payable by the community, consistent with all applicable local laws and regulations, and viably cover the operating costs and loan repayment of the Safe Water Station. The third option could either be a purchase agreement or simply information to entice customers to buy water from the Station in the context of their current monthly household expenses.

Section 5 presents an illustrative list of opinion leaders who can influence villagers to purchase water from the Safe Water Station. During the Meeting, participants should finalize a similar list that applies to their community. The Safe Water Committee or the entrepreneur operator should meet with each listed individual – with the other Safe Water Station Partners is useful – to solicit their help in helping to overturn the myths, promote the affordability of Safe Water Station drinking water, and communicate the prioritized messages from Sections 2 and 3 to their constituents.

OVERTURNING MYTHS, SELECTING MESSAGES, AND IDENTIFYING INFLUENTION LEADERS TO PROMOTE THE SAFE WATER STATION

Section 1: Myths That Need to be Addressed in Promoting the Safe Water Station
LEARN EACH ONE

- ***MYTH #1: Groundwater is pure.***
  TRUTH: Groundwater can contain many kinds of chemical and microbiological contaminants that are natural or generated by man. These can cause diarrhea, cholera, and arsenic or other chemical poisoning
- ***MYTH #2: Water cannot cause illness since illnesses are sporadic and not constant, whereas water is drunk daily.***
  TRUTH: Illnesses can be present all the time but only be apparent when the body is overpowered by the contaminant causing the illness. Dirty water may not always cause illness, but safe water and hygienic practices will always prevent illness.
- ***MYTH #3: Groundwater and water from natural streams is pure.***
  TRUTH: Both sources of water are often contaminated by people, animals, or naturally occurring pollutants. Our water quality tests can show this to prove that it is true.
- ***MYTH #4: Boiling treats the water of its contaminants.***
  TRUTH: Boiling water can eliminate microbiological contaminants and help reduce diarrhea. But, boiling water is useless against chemical contaminants including arsenic, fluoride, and "chalk" or hardness.
- ***MYTH #5: Consuming safe water sporadically can prevent health issues.***
  TRUTH: Safe water needs to be consumed by all family members at all time to prevent health problems. Drinking unsafe water occasionally can contaminate you and the places where you store water. Occasional use of unsafe water can make safe water unsafe!
- ***MYTH #6: Schemes are not to be trusted.***
  TRUTH: We know this is often the case. But, The Safe Water Station is owned and managed by your friends and neighbors in your community. You can contact them or the other Safe Water Station Partners at any time if you need to know something that will give you trust in the Station. Also, the water that is sold must pass strict testing requirements that ensure the quality of the Safe Water Station water is as good as any sold anywhere in the country – and they must make the results of these tests available to customers.

Section 2: Issues Faced by Villagers that a Demand Generation Effort Could Address
SELECT ONE AS THE MOST IMPORTANT

- ***Throat pain, body and joint pains, bone weakness, bending of bones amongst older people.*** If these are present, then it is highly likely that chemical contamination of the water supply has occurred and only very effective drinking water treatment technologies such as reverse osmosis should be used in the Safe Water Station.
- ***Diarrhea, vomiting, and/or fever in children.*** This is the most common effect of contaminated water. Drinking water from the Safe Water Station should reduce or eliminate these problems. Drinking water from the Safe Water Station AND practicing key hygiene behaviors – all using a hygienic latrine, all washing hands after using the toilet and before preparing food, and storing water safely in a dedicated container – should eliminate these problems.
- ***Difficulty in walking after the age of 40, and inability to walk without a stick after the age of 50.*** Both the physical layout of the Safe Water Station and the Station's distribution system for water in containers should take these issues into account.

Section 3: Key Drivers for Obtaining Drinking Water from the Safe Water Station
SELECT TWO AS THE FOCUS MESSAGES

- ***Shorter distance to travel to fetch better quality water.*** When the Safe Water Station is in operation, it will provide water that is guaranteed to be of world-class quality, and it will be available close to your home. You and your family will save a great deal of time and work every day as collecting better water will be easier.
- ***No time will need to be spent on boiling water for purification.*** Boiling water to prepare food or tea requires time to ensure that contamination of the water is eliminated. Using water from the Safe Water Station reduces the time need to cook and make tea because the water is already free of contamination.
- ***Saving energy by reducing need for boiling water for purification saves money.*** Boiling water to prepare food or tea requires fuel. If the time to boil water is reduced, then less fuel is needed, and your family saves money by using less fuel.
- ***Price of safe drinking water bought from the Safe Water Station will be less than what you pay now.*** Water from the Safe Water Station will cost approximately US$0.04 for 20 liters. The cost from other water vendors is higher and the quality of their water is not guaranteed to be purified and safe.
- ***Water from the Safe Water Station always has good taste.*** Water purchased from the Safe Water Station is clean, safe, and sweet tasting. It contains no contamination of any kind.
- ***People you know will reliability operate and then own the Safe Water Station.*** The Safe Water Station is owned and operated by people from your community. It will be in your community for as long as you use it. The technology used to treat the water is of the highest quality. The Station Supervisor is managed by an Operator that reports to a local Village Partner you know and trust. The entire operation is overseen by an agency or organization that is dedicated to providing you and your family with a continuous supply of safe water.

Section 4: Cost of water from the Safe Water Station
APPLY THIS COMBINATION OF PAYMENT PLANS FOR CUSTOMERS

- ***US$ 6 to 10 (equivalent) pays for a lifelong membership in the Safe Water Station.*** This up-front, one-time payment permits you and your family to buy water from the Safe Water Station for as long as you want to.
- ***US$ 0.03 to US$ 0.04 (equivalent) buys 20 liters of water.*** The water should be purchased in a safe water storage container that has a narrow neck so that hands and dirty things cannot enter the container and has a tap so that water can be safely poured out of the container.
- ***US$ 1.25 to US$ 2.00 (equivalent) will buy water for your family for one month.*** This amount of money will buy 10 liters of water every day of the month. Most families use between 10 and 15 liters of water per day for drinking and cooking. You and your family will save more than this amount in reduced amounts of money paid for fuel, medicine, and doctor visits.

Section 5: Key opinion leaders who will influence others to use water from the Safe Water Station
THESE WILL BE THE FIRST PEOPLE WHO ARE CONTACTED ON "MYTHS" AND MESSAGES

- Village head or village chief (traditional or elected leader)
- Older men in the village
- Specific men who are considered knowledgeable and trusted by the villagers as their key advisors
- Doctors, nurses, and staff of health clinics
- Community-based health workers
- Leaders of women's groups
- Older women in the village who are visited by new mothers for advice on raising healthy children

Introduction to the Distribute Module

Distribution of safe drinking water beyond the Safe Water Station is equally about logistics, efficiency, and finances. Logistics focuses on how the safe water will be moved. Efficiency is how safe water can optimally be moved to reach targeted consumers. Both are governed by balancing costs with revenue. Distribution must prove to be financially sustainable, and the Tools to plan, budget, and manage distribution and operation of a Safe Water Station this are presented in this Module.

Use of the three Tools included in this Module will ensure that the Operator and the Safe Water Station Partners are able to project financial needs, estimate costs of distribution and Station operation, and document all Station finances to a level that can be audited by and independent professional. The Module includes Tools to introduce to customers the use and benefits of Safe Water Storage Containers, optimize distribution networks to improve convenience, and document the transactions and financial status of the entire Safe Water Station. These Tools build the capacity and confidence of the Station Operator to manage the operation of the Station and transparently manage the flow of money into and out of the Station.

Use of the first Tool in this Module, Tool 20, Using Safe Water Storage Containers, is critical to maintain the quality of the safe water supply chain keeping water uncontaminated from the point of purchase until the time it is used for drinking or cooking. A solid literature supports the important role of “narrow neck” water containers in keeping water safe to and in the household. This Tool provides guidance on the production, promotion, labeling, and sale of these containers to establish both an income stream for the Station Operator and a high level of value to the consumer.

Tool 21 guides the Safe Water Partners through the selection of Distribution Channels and mechanisms that result in positive income for both the Operator and the Distributor. The success of these Channels is fundamentally financial. If safe water cannot be sold to distribution customers at a price they are willing to pay and that covers the significant costs of distribution, then distribution is not a viable operation. By focusing on the efficient distribution of large volumes of safe water to “clustered” customers, distribution has proven to be a viable income-generating undertaking offering confirmed benefits.

Tool 22 expands on the financial analysis presented in Tool 21. In this Tool, a comprehensive Financial Management Manual is presented to guide all aspects of Safe Water Station operation. The Manual includes definitions of key accounting terms, step-by-step procedures for maintaining the financial records of the Station, and a lengthy set of Annexes containing templates and examples of each necessary financial document that must be kept to ensure the financial sustainability of the Safe Water Station.

In the Safe Water Network’s experience, the tasks in this Module can be a challenge to implement. Their use will be a collaborative effort between the Operator, the Station Supervisor, the Safe Water Station Partners, and the agency / organization. But, when maximizing market size and maintaining the trust of customers that the cash they pay for safe water is being handled in a professional and transparent way so that both money nor assets stay with the Station are at stake, no corners can be cut. When the initial challenges in expanding the operation of the Station in accounting for the money flowing through the station are met, then the Operator has established the potential for sustainable supply of safe water.

The Tools to guide these next steps that expand the operations of the Safe Water Station are presented on the following pages, and the expected outcome from the use of each Tool is introduced in Figure 1. In this Module, the discipline of professional service provision is put in place and the Station Operator is equipped with all of the skills necessary to manage and eventually take full ownership of the Safe Water Station.

Figure 1: The Tools in the Distribute Module of the Safe Water Station Local Operating Unit

The Safe Water Station Local Operating Unit

screening > community > 

Tool Kit Modules →	
Distribute Module Tools:	Outcome
20. Using Safe Water Storage Containers	**Safe Water Station Operators introduce "narrow neck" containers to their customers to improve health and establish a valued sales product for the Station**
21. Establishing Distribution Channels	**Safe Water Station Operators identify financially and logistically viable methods to deliver safe water to individual, commercial, and institutional customers**
22. Manual of Financial Management	**Safe Water Station Operators understand and use standard procedures for financial planning, bookkeeping, and accounting that can be verified by external auditors**

DISTRIBUTE MODULE: TOOL 20

USING SAFE WATER STORAGE CONTAINERS

PURPOSE

Operation of a Safe Water Station provides safe water close to households, treats the water to remove pathogens, and provides a location and materials to clean containers. To completely promote safe drinking water management, the Safe Water Network promotes and makes available "narrow neck" containers that are convenient to use and affordable to consumers. This Tool presents information to describe and promote these containers and provides record keeping forms to use in managing the sales and stocking of containers at Safe Water Stations. It is intended to help Operators decide how best to introduce "narrow neck" containers to their customers and then monitor the growth in sales and use of these containers.

Even if a household has easy access to safe water, the family – especially children – remains at risk to debilitating waterborne disease if the water is not properly stored and the storage container is not properly maintained. During a Safe Water Network study in Ghana, researchers found that 11% of the water leaving Safe Water Stations had microbial contamination, and that this increased to 62% when it reached consumers in their homes. The principle reasons for this drastic increase were (1) consumer use of wide mouth containers and (2) lack of cleaning of water containers. A container with a wide mouth allowed children to dip a cup or glass inside the container to take water contaminating the clean water. Lack of cleaning established an automatic source of contamination for the clean water. The two actions together undermine any potential health improvements from the consumption of safe water.

The Safe Water Network is not satisfied with merely producing and selling safe water as described in the previous 5 Modules of this Tool Kit. The Network is committed to keeping water safe all the way to consumption. This requires promotion of safe drinking water management focusing on "narrow neck" containers that are used only to transport and store safe water.

AUDIENCE

This Tool is for use by Village Partners, Safe Water Committees, Safe Water Station Operators, and Station Supervisors to develop and implement a plan to promote, sell, and encourage the use and cleaning of "narrow neck" drinking water storage containers.

PRE-REQUISITES

Before this Tool can be used, the Safe Water Station Partners must identify a source of high quality, affordable containers of suitable size and shape. It is possible to procure these internationally, but the strong preference is to identify a local source that either manufactures or is a wholesale supplier of containers. The Safe Water Network has tested several containers and proposes that containers meet several requirements. These are presented below under "Materials Contained in This Tool".

Before using this Tool, it will also be necessary to identify a commercial label production facility. An example of a container label and representative specifications for the production of labels are presented in this Tool. The labels placed on containers are a very important part of the advertisement and promotion of the Safe Water Station. The label design must grab attention and promote the brand or name of the Safe

Water Station. Production of the label must follow strict quality instructions to ensure that the labels are durable and long lasting.

Lastly, before using this Too, the agency / organization and the Operator must finalize an agreement on the purchase of safe water containers. The agency / organization or the Operator must take the responsibility for the initial capital investment in purchasing a stock of containers for sale to customers. The purchase arrangement must order a sufficient quantity of containers to merit production by the container supplier and to meet the market demand from the Safe Water Station. The size of this purchase will determine the investment needs. If the Operator makes the initial capital investment in containers, then the risk of failure to sell stays with him as do the recovered costs. If the agency / organization makes the investment, then it must be considered as a loan or advance to the Operator that must be repaid to the agency / organization by the Operator on an agreed-upon schedule.

MATERIALS NEEDED

To use this Tool, two decisions need to be in place that influence the design and use of the materials presented in the Tool: (1) a thematic color scheme and (2) a style of branding for the Safe Water Station. The Safe Water Station, its affiliated distributors, its retail products, and its promotional materials must share a common color palette. This selection of a small number of colors to represent the Safe Water Station was chosen in as part of the Decoration Tool in the Sell Module – Tool Kit Module 5. The decision on branding is locally dependent. In the Safe Water Network's experience, either the product or the Station itself can serve as the brand. Our India program has branded the safe water as "iJal". Our Ghana program has branded the Station itself as "Water Health". In either case, branding has proven helpful in preventing others from entering the market selling contaminated water as safe water and abusing the Station brand.

In addition, the Operator and the Safe Water Station Partners must decide on the material they wish to use to promote safe water containers to the community – poster, wall paintings, brochures, billboards, signs, calendars, bumper stickers, and other information materials have been used. The Operator and the Partners should identify the materials that are inexpensive but effective in their community and then use the information presented with the Tool to create their own promotional material.

MATERIALS CONTAINED IN THIS TOOL

This Tool contains 4 materials to support the sale and use of Safe Water Storage Containers: two presentations of illustrative promotional information describing the features of Storage Containers, an illustrative Container label and specifications for the production of high quality labels, and examples of 3 record keeping forms.

The selection, design, and construction of Containers is specific to the needs of the Operator and the customers. The illustrative promotional materials emphasize the aspects of the Container design that can be used to promote the value of the container and its purchase. At a minimum, Containers must be strong and sturdy, incorporate a comfortable handle grip, and be easy to store and pour. Containers must have a "narrow neck" designed for easy pouring and ensuring that hands and utensils do not enter the Container and contaminate the safe water inside. Criteria for container design and selection are illustrated in the Tool and include the following:

- *Stack Easily:* A stock of containers would be kept at the Safe Water Station, and they should efficiently occupy as small a footprint as possible. In addition, containers are likely to be transported by bicycles, small carts, or truck between the Station and customers. If the containers stack easily, their transport will be simple.
- *Clean Easily:* As seen in Tool 13, a well-designed Safe Water Station has a location for customers to clean their container with a chlorine solution before it is filled with safe water. The inside of the container should be easily cleanable with just a rinse and the outside of the

container should be easily cleanable to help prevent any contamination from reaching the safe water inside.

- *Carry Easily:* Most frequently, women and girls will collect water from the Safe Water Station. One liter of water weighs 1 kilogram (2.2 pounds); 10 liters of water weights 10 kilograms (22 pounds); and 20 liters of water – as is frequently sold at Safe Water Stations – weighs 20 kilograms (44 pounds). The container must make it as easy as possible for women, girls, and children to carry this weight of water for up to one hour.
- *Pour Easily:* The Safe Water Network has found that if the bottom of the container is rounded on the outside rather than angular, it is easier for the customer to tip the container and pour the safe water without fear of splashing or losing any of the purchased water.
- *Long Lasting:* The containers will be one of the advertisements that entice customers to the Safe Water Station. They represent a significant investment by customers with meager disposable funds. For these reasons, the containers must show value through construction with high quality materials that last through daily use in high heat, cold, and all weather.
- *Useful Label:* The Safe Water Network marks the label with an indicator that shows when it contains 10 liters of water as shown in the Tool. This allows the customer to easily purchase 10 liters of water from the Safe Water Station if that is her / his preference. The label also plays a central role in advertising and promoting the use of water from the Station. It must be informative and durable to have value.
- *Shape that is Carryable:* Around the world, people carry water in several different ways: on top of the head, on the shoulder, over the shoulder on a bindle stick, on the back, or by hand. The shape chosen for the container should comfortably accommodate the prevailing way in which customers carry large volumes of water.
- *Leak-proof Cap:* A tight cap avoids leakage of water, prevents contamination, and preserves the customer's purchase. The Safe Water Network has found that the most leak resistant caps are those with an inner and an outer cap.
- *Integrated Handle:* The handle of the container should be a built-in part of the container. 20 liters of water weighs 20 kilograms or 44 pounds. Carrying this weight in a container puts significant strain on the handle. To be worth the customer's investment, the handle cannot be allowed to break or fail.

The Tool also contains an example container label used by the Safe Water Network in India. This label conveys a great deal of information while also grabbing attention and promoting the brand. This label contains information on the volume of the container, the slogan of the India program, the logos and names of the principle supporters of Safe Water Stations in the country, and a volume indicator. The India program has chosen to brand its water as "iJal", and this brand is prominently displayed on all items and events promoting their Safe Water Stations. The Tool presents a table of representative technical criteria that can be applied to the production of high quality labels. Representative details and specifications are provided that should be clearly understood by any professional printing operation globally.

Finally, the Tool contains three simple tables to be used to maintain records on the delivery and sale of containers and the management of container delivery and sale. Typically, an initial investment is required for the purchase of a significant quantity of containers. If the Operator made the investment, then the first two tables are not necessary. If the agency / organization made the investment, then the first two tables are used to establish and keep records on the repayment schedule for the Operator to repay the agency / organization for the advance payment for container purchase.

HOW TO USE THE TOOL

This Tool provides illustrative communication materials to use in describing and promoting the sale and use of Safe Water Storage Containers. It is important to anticipate that villagers will have early resistance towards purchasing and using the Safe Water Storage Container. This has been experienced in all locations by the Safe Water Network, and it was a driving reason that others operating in this market abandoned the promotion of safe containers even though they remain important links in health improvement. However, the Safe Water Network has seen that the resistance can be overcome through interactive and fun activities to introduce the importance of the Safe Water Storage Container to consumers. The first two elements of the Tool convey similar information, and each can be used to explain to villagers and customers "Why should you only use" Safe Water Storage Containers or to simply and graphically illustrate the five key selling points for the container: easy transport, strength, carrying ability, "narrow neck", and easy pouring.

If villagers are initially apprehensive about purchasing and using the Safe Water Storage Containers, their ideas and practices can be addressed through discussion sessions and demonstrations that show the added value of the Containers. Community events can be organized to showcase the strength and ease of carrying the Container. For example, running races can be organized where competitors carry the Container to show how easy it is to carry. To demonstrate the strength of the Container, the Safe Water Network has dropped a filled container from the height of 3 meters (10 feet) without breakage or spillage. The first two elements of this Tool are presented to provide ideas that stimulate the creative innovations of the Operator, the Safe Water Committee, and the Village Partner to develop locally useful displays that promote the purchase and exclusive use of the Safe Water Storage Container. The photographs and key points of each should be reviewed by the Operator and the Station Partner to develop a small set of communication materials and / or displays (for example, brochures, wall paintings, billboards, posters, calendars, health charts, etc.) that can be used to communicate directly to households or to the community at large the value in purchase of a Safe Water Storage Container.

The third element of the Tool presented representative information to guide the Safe Water Station Partners in designing and printing labels for the Storage Containers. The branding and specifications shown were developed by the Safe Water Network Team in India, and they may not be applicable in all locations. But, the specifications presented are intended to guide the Operator and Partners in working with a printer to create high quality, water proof, and durable labels for Storage Containers.

The final element of the Tool presents 3 record keeping forms. The first is a "Record of Container Loan and Repayment for One Safe Water Station". This Record is meant to be shared by the agency / organization and the Operator to document the initial investment made to purchase Containers for a specific Safe Water Station and the amount repaid to the purchaser of the Containers through operating of that Safe Water Station. The second Record guides the agency / organization, or other lender of advance purchase funds, in compiling all of the information collected using the first Record from each Safe Water Station in operation. It is intended to be used by the agency / organization or other purchaser of containers to compare sales of containers across multiple Safe Water Stations and assess the status of overall repayment of investment in advance purchases of Storage Containers. The third Record is for use by the Operator and the Station Supervisor to keep a record of how many containers were initially provided how many have been sold, and how many remain in stock to ensure that all containers provided externally are accounted for at the Safe Water Station.

safe water network

Features of a Safe Water Storage Container

A promotional poster used in India

Features of a Safe Water Storage Container

Graphic illustrating the 5 key advantages of a Storage Container

Stackable for easy transport

Strong, sturdy body with a good handle grip

Easy to carry

Narrow mouth to keep water safe and provide easy flow

Easy to pour rounded bottom

Example Label and Specifications for a Safe Water Storage Container

Description	Detail
Substrate Detail	
Substrate specification	Fas Film Plus Clear Supertac – Glossy PP film with print receptive coating
Face stock thickness	50 micron ± 10%
Liner	62 grams per square meter (gsm) ± 10%
Total gsm	110 gsm
Surface treatment	Laminated with Bopp film 22 micron Adhesive is water resistant
Static build up	The film substrate should be free of any static charge build up
Printed Label Detail	
Design	As per approved artwork
Print quality	Colors must match approved “shade card” Printing free of mis-registration, smudging, mottling, cell filling, and other defects
Ink gsm	2.5 ± 0.5
Printing inks	Light Fast (LF), Heat Resistant (HR), and Alkali Resistant (AR)
Ink adhesion	Should pass 3M Scotch Tap Taco Tape Test as per ASTM methods
Rounded corner / radius	No
Die cut	Must have proper and even die cut as per the die keyline and must not have deep punch problems
Scuff Resistance and Nailing Test	Should pass as per ASTM method
Packaging specification	In cut form, 2500 per pack supplied in 5-ply cartons lined with water resistant wrapping

Record Keeping Forms for Container Sales and Repayment of Advance Investments

Record of Container Loan and Repayment for One Safe Water Station

[INSERT SAFE WATER STATION NAME]			
No.	Date	Payment by Agency / Organization for Safe Water Storage Containers (US$ Local Equivalent)	Payment from Village Partner to Agency / Organization for Safe Water Storage Containers (US$ Local Equivalent)
TOTAL			

Record of Container Loan and Repayment for Multiple Safe Water Stations

No.	Name of Safe Water Station	Containers Issued (#)	Cost per Container (US$ equivalent)	Total Cost of Containers (US$ equivalent)	Repayment to Agency / Organization of Container Cost (US$ equivalent)	Balance (US$ equivalent)
			TOTAL			

Record of container stocks at Safe Water Stations

No.	Name of Safe Water Station	Number of Containers Issued	Number of Containers Sold	Stock
TOTAL				

DISTRIBUTE MODULE: TOOL 21

ESTABLISHING DISTRIBUTION CHANNELS

PURPOSE

To ensure that the benefits of safe water reach the greatest possible number of households, the Station should provide water not only for customers who come to the Station but also to households and other operations that cannot come directly to the Station. The purpose of this Tool is to present a methodology for identifying viable ways of delivering safe water to individual, commercial, and institutional customers operating close to but not immediately in the vicinity of the Safe Water Station.

AUDIENCE

This Tool is for use by the Safe Water Partners or an entrepreneur who wishes to enter into the commercial business of distributing treated water from a Safe Water Station.

PRE-REQUISITES

Before using this Tool, the Safe Water Station should be fully operating and delivering safe drinking water to an established customer base. The Operator of the Station should also determine if the Station can produce enough water to provide roughly 10,000 liters (approximately 2,700 gallons) of water per day for distributed sales and maintain service to established Station customers.

In addition, the Station Operator should have established some level of product "branding" to distinguish Safe Water Station produce from other commercially sold water, and the Station Operator must have established a protocol for maintaining the cleanliness of the water and any containers it contacts. Both the branding and the protocol must be enforced as part of any distribution program.

MATERIALS NEEDED

The basis of planning for and selecting distribution channels is the creation of an informal but accurate community map. The purpose of community mapping is to assist the Safe Water Station Partners (and a distribution entrepreneur, if involved) to bring together information within the community that is useful to them, and then use this information to decide what is important and what is not. Community mapping is a widely used activity in participatory development, and many reference materials are available, if needed, to guide the process. The basic steps are the following:

- *Find the time:* Accurate and useful community mapping can be a long process, so patience, preparation, and funding are needed. Without accurate mapping, the identification of distribution channels for safe water delivery becomes overly difficult.
- *Identify the community:* It is important to identify who the distribution hopes to reach and why. The location of these "targets consumers" should be included in the community map.
- *Identify knowledgeable champions:* Those who intend to distribute water will be key to the effort, but women, potential institutional or commercial customers, and area leaders should be brought in to help with the process. Ultimately, the design of the distribution operation will need to prioritize meeting their needs as they will be customers of the service.
- *Use the earlier "village profile":* When the Safe Water Partners used Tool 4, the "Detailed Village Analysis Form", many important pieces of information were collected that should be included in the community map.
- *Design the community map:* Maps should be drawn on the principle that the buildings – houses, schools, streets, etc. exist in spatial relations to one another. The scale of the map will generally fall into place once mapping is begun. Begin by drawing the Safe Water Station

on the map. Working outwards from the Station draw streets, houses, community spaces, markets, health centers, and other important locations. Accuracy is not critical at this stage. The inclusion of information is critical, however.

- *Add detail:* Include on the map whatever is deemed to be important to the distributed sale and delivery of safe water from the Station. You cannot include too much detail on the map at this time. As the Partners or entrepreneur use the map, they can make decisions about what to keep or delete.
- *Use the map:* Identify grouped areas where potential customers live or otherwise spend time – including market centers, health centers, schools, restaurants, bars, and community centers. Efficiently "clustering" customers will greatly reduce the logistics and cost of water distribution. Using the map in this way will result in the identification of distribution channels – essentially delivery routes that efficiently use fuel and maximize customers.

An example of a community map generated is presented in this Tool as a guide to suggested features to include in a Safe Water Station water distribution map.

MATERIALS CONTAINED IN THIS TOOL

This Tool contains 3 items to help the Safe Water Partners, and an entrepreneur if involved, realistically evaluate the logistical and financial viability of distributing safe water to locations away from the Safe Water Station. The first item is a sample community map used in India to identify locations and routes to include in distribution planning. The second item presents the 4 key factors that must be considered in planning for distribution. The third item is a form to be used to calculate the operating cost, revenue margin, and retail cost of water delivered to locations away from the Safe Water Station.

HOW TO USE THE TOOL

After a community map is drawn, it should first be used to set up efficient delivery routes serving the maximum number of customers at the lowest operating cost. Delivery routes should be compact and initially be developed to serve population centers and accompanying commercial or institutional locations. Distribution points and / or pick up points should be identified and established first within a 4 kilometer (2.5 mile) radius of the Safe Water Station. For whatever distribution method is chosen, manual labor or fuel cost will be the determining factor in establishing a price for distributed water that can cover operating costs of the distribution system and generate an enticing margin for the distributor. The selection of distribution channels ultimately comes down to a comparison of finances: expected expenditures against expected revenue.

Four key factors that must be kept in mind while selecting distribution channels are presented in this Tool:

- *Demand beyond walking distance to the Safe Water Station:* The optimal walking distance to a Safe Water Station can be estimated by the distance that a woman can cover in 30 minutes carrying a full load of water purchased from the Safe Water Station. The intent of distribution is to extend the coverage and reach of the Safe Water Station beyond this walking distance. Demand beyond this distance should be informally assessed through discussions with women, men, and managers of water-using operations. This demand assessment should account for households, restaurants, markets, schools, and health care facilities. In the case of the Safe Water Network operations in Ghana, 70% of the customers purchasing distributed safe water were households, but 60% of the volume of water being sold through distribution is to commercial and institutional customers.
- *Transportation available to distribute water containers:* After the informal assessment identifies nodes of demand, these should be included on the community map. Then consideration should be given to the transportation options available to reach each node. A

wide range of transportation options exists for distributing safe water. These range from bicycles and manual rickshaws to small powered vehicles and four-wheel cars and trucks. The selected means of transportation must be economical and generate livelihood for the distributor. Each option has a cost and limitations associated with it, and before selecting a transport vehicle for distributing, it is necessary to evaluate the economics of distribution to ensure financial sustainability. Options can be compared using the third element in this Tool, the "Operating and Retail Cost Estimator".

- *Cost of transportation:* The cost of transportation will ultimately determine the price at which distributed safe water must be sold to consumers. The price is directly linked to the efficiency of distribution. Optimizing efficiency reduces the cost of transportation per unit volume of distributed water sold. Reducing transportation costs allows lowering of the retail cost of distributed Safe Water. As will be seen when using the third element of this Tool, the cost of transportation must account for a transporter's salary, additional labor if needed to distribute the water, maintenance of the vehicle used, and fuel if required. The initial investment in the transportation vehicle must also be factored into the calculation of overall transportation cost.
- *Price per container of distributed water higher than directly from the Safe Water Station:* Each of the previous factors plus the cost of safe water purchased directly from the Safe Water Station combine to determine the price per volume of water sold by the distributor. The purchasing capacity of villagers in most rural areas is very low. Even for the basic amenities such as safe drinking water, villagers are highly price sensitive. Therefore, every effort should be made to keep production and distribution costs low. An accurate calculation of the "price point" for distributed water can be calculated using the third element of this Tool.

It is clear that establishing distribution channels is as much about logistics and equipment as it is about cost and the pricing of water to make it both competitive and able to cover distribution costs. This Tool will guide Partners and entrepreneurs through this cost calculation. Tool 22 presents the full range of financial management tools to guide overall success of the Safe Water Station.

The third element in this Tool is the "Operating and Retail Cost Estimator". The "Estimator" is used to determine the price of distributed water to cover distribution costs and calculate a price that can provide savings to the distributor. It is divided into four sections: (1) monthly distribution expenses, (2) market size, (3) necessary price for distributed water, and (4) margin and savings. Instructions for the completion of each section are provided below:

- *Section 1: Monthly Distribution Expenses* – This Section is organized in a standard budget tabulating format. The first column, "Item", should be reviewed for completeness as it must contain every anticipated cost for the operation of the distribution system.
  - In the Safe Water Network's experience, both a driver and a laborer are needed for distribution. The first is responsible for vehicle operation, and the second is responsible for distributing the water from the vehicle to customers. The monthly salary of each – including any relevant benefits and / or taxes – should be entered in the "Total Value" column for each personnel required.
  - If the vehicle requires fuel, then a simple calculation of fuel cost per month is provided in the footnote. The result of this calculation should be placed in the "Total Value" column for this item.
  - Any costs related to the legal and safe operation of the vehicle must be included in the next rows. Insurance and registration costs are presented as illustrative examples of these kinds of expenses. These costs which are typically not paid

monthly should be converted to a monthly average cost and entered in the "Total Value" column for each relevant item.

- All vehicles, whether a bicycle or a four-wheel truck, will require some investment in maintenance. An average monthly value to cover these costs should be entered in the "Total Value" column for the "Vehicle maintenance" line.
- It has proven best if distributed water is paid for with cash on delivery and a receipt is given to the customer. Therefore, the distributor will have some costs for stationery that must be included in this calculation of expenses. A sample Receipt Voucher is presented as part of the material in Tool 22. A Receipt Voucher must be collected from each customer at the time of sale of distributed water.
- The distributor must also factor in the purchase price for drinking water from the Safe Water Station. It is possible that the Station Operator could negotiate a less-than-full-retail price with the distributor, but the Station Operator must keep in mind that his / her primary objective is to run a Safe Water Station that covers its operating costs, repays any initial capital investment loans provided, and provides sufficient margin to cover future unanticipated costs.
- The calculation must also account for the purchase of water containers for distribution. Containers could range in size from the 20 liter Safe Water Storage Containers described in Tool 20 to 3,000 liter containers as used for bulk sale of safe drinking water from Safe Water Stations in Ghana. Each of the costs should be converted into a monthly average or total and entered in the "Total Value" column for the "Water containers" line.
- The distributor should add any additional anticipated expenses to the table and add the numbers in the "Total Value" column together to calculate the "Total Monthly Distribution Expenses". This value will be used later to help calculate the required cost of distributed water.

- *Section 2*: Market Size – In this Section, the distributor will use some known data to conduct a series of calculations to estimate the number of liters of safe water that can reasonably be sold through distribution channels.
  - Lines A and A2 provide total population size that can be conveniently reached by distribution channels. The suggested 4 kilometer radius can be expanded if the distributor believes that a larger range of customers can be serviced.
  - Line B (or Line B2) is an actual number representing the total population that is coming to the Safe Water Station to purchase distributed water. It is assumed that these people will not be served by distributed water, so their number should be subtracted from the total population size as is indicated in Lines C and C2.
  - Lines C and C2 are calculated as indicated to provide the estimated number of people or households that are not currently purchasing water directly from the Safe Water Station and could be served with distributed safe water.
  - Line D is an estimation of the percentage of people or households from Line C or C2 that can be expected to purchase distributed water. It is best to use a conservative number, for example 30 % (or 0.30 in the calculation) for the initial calculations of market size. This number can be revised to a different value and the market size recalculated if this number does not provide a reasonable income from the sale of distributed water.
  - Lines E and E2 are then calculated by multiplying respective values from Line C or C2 by the value entered in Line D. This results in the number of people or households that the distribution system will serve.

- Lines F and F2 contain the expected monthly safe water usage per day each day (for example, 2 liters / person / day and 10 liters / household / day) for a 30-day month.
- Line G then presents the total household market size by multiplying either Line E times Line F for the population or Line E2 times Line F2 for households.
- Lines H, I, J, and K are then used to estimate the monthly volumes of water that would be distributed to major users of safe drinking water: restaurants, schools, health centers, and any other commercial or institutional customers identified during the community mapping exercise.
- Lines G through K are then added together to provide the "Total Monthly Market Size in Liters"

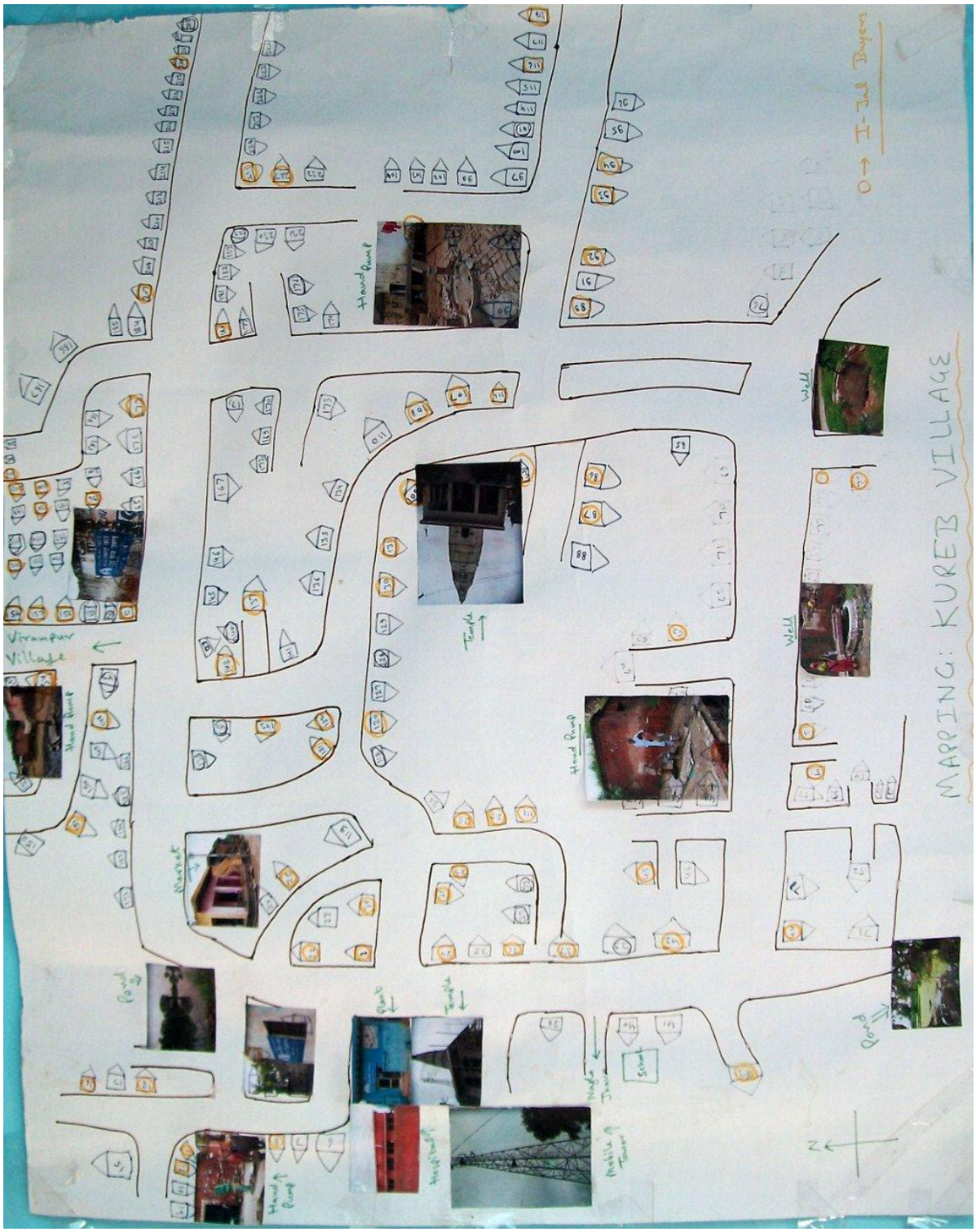
- *Section 3: Necessary Minimum Price for Distributed Safe Water* - In this Section, only two calculations are made using the totals from Sections 1 and 2. By dividing the total monthly expenses calculated in Section 1 by the Total Market Size calculated in Section 2, the minimum price of distributed safe water per liter is calculated that will cover ONLY operating costs. This price would yield no extra income to repay initial loans or invest in future operational needs. The final calculation in this Section simply multiples the first value by 20 to provide a price for 20 liters of distributed water to cover ONLY operating costs.
- *Section 4: Margin and Savings* – The calculations in this section are used to determine a price per liter of distributed water that will cover ALL costs and provide an amount of savings that is satisfactory to the distributor. It will be necessary to conduct these calculations several times until incrementally higher Price per Distributed Liter result in an acceptable "Savings" or Monthly Net Operating Margin.
  - As a first calculation, a slightly higher price than that calculated in Line L should be used in Line N so that more than only distribution expenses are covered by sale of distributed safe water.
  - The number calculated for the "Total Monthly Market Size in Liters" at the end of Section 2 should then be entered in Line O.
  - The Monthly Income expected to be generated at the price selected in Line N is then calculated by multiplying Line N by Line O.
  - The number calculated for the "Total Monthly Distribution Expenses" at the end of Section 1 should then be entered in Line Q.
  - The "Monthly Gross Operating Margin" in Line R is the difference between the anticipated income from sale of distributed water less the distribution expenses. It is calculated by subtracting the value in Line Q from the value in Line P. If this is a positive number, then the distributor is able to cover all operating costs and have some income left over. If this is a negative number, then the distributor needs to either raise the price of distributed water or increase the number of liters sold – or both. When the value in Line R is positive, then calculations can continue in Lines S and T.
  - The value to be placed in Line S is the amount of money that the distributor must pay to any individual or organization that provided a financial advance or loan to cover any of the start-up costs of the distribution system. This number should be negotiated between the lender and the distributor. When there is an agreement on this number, the calculation in Line T can be performed.
  - The "Savings" or "Monthly Net Operating Margin" is calculated by subtracting the value in Line S from the Monthly Gross Operating Margin in Line R. If this is a positive number, then the distributor is able to cover all operating costs, repay any initial start-up loan, and have some income left over. If this is a negative number, then the distributor needs to reduce monthly expenses, increase the number of

liters sold, or increase the price per distributed liter of safe water – or make 2 or 3 of these changes. When the value in Line T is positive, then the distributor will know the price, volume, and expenses that are required to cover ALL expenses and provide savings to the distributor.

When these calculations are complete, the distributor will have a firm idea of what will be required for him / her to operate a financially sustainable business as a distributor of safe water. The distributor should then assess whether the expenses, price, and volume are possible in the village and its surroundings. If the distributor concludes that each is possible, then distribution should begin right away. If the distributor concludes that each is not possible, then the Operator of the Safe Water Station must focus on the customers who purchase safe water directly from the Station as distribution is not financially viable.

safe water network

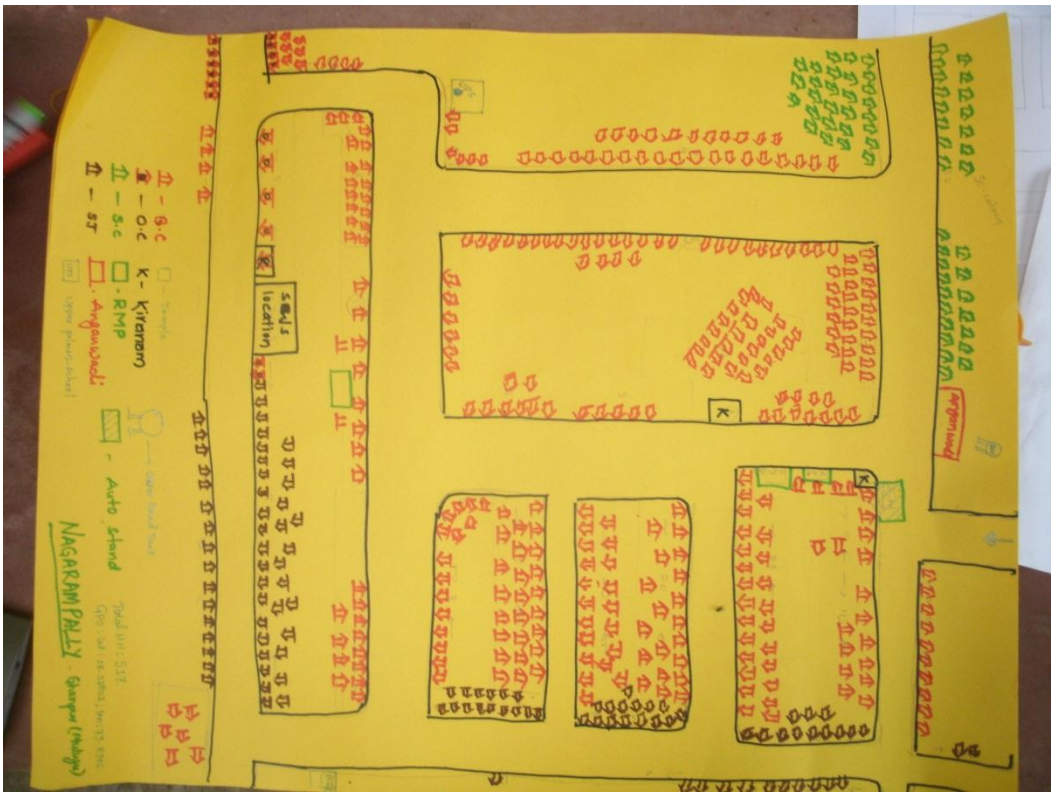
An Example Map created by the Community



Mapping of Kureb village, Gautam Buddha Nagar district, Uttar Pradesh

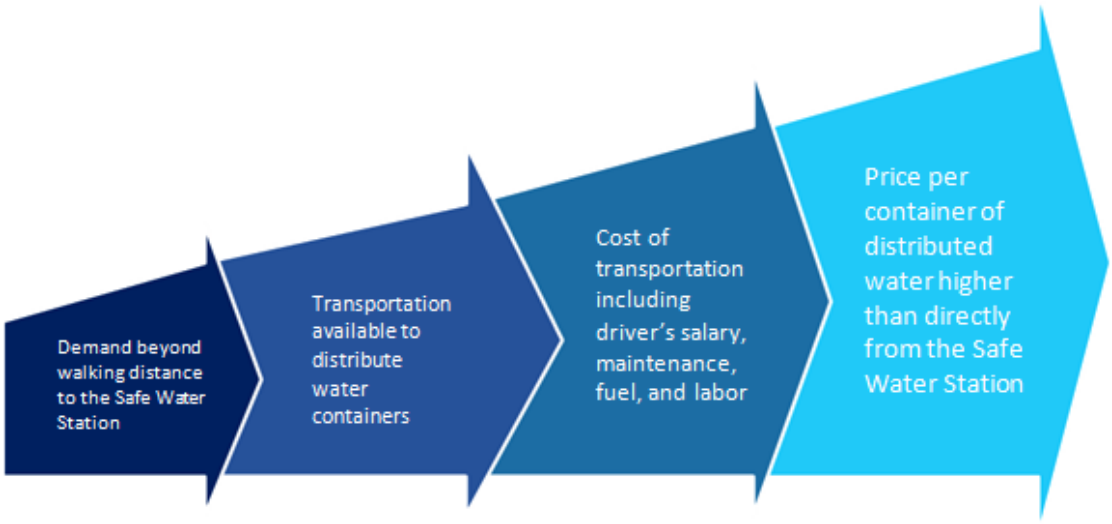
Establishing Distribution Channels

A community map produced by the Safe Water Network India



Nagarampally village PRA, Warangal district, Andhra Pradesh

Factors in Selecting Distribution Channels



Operating and Retail Cost Estimator

Estimating costs and retail water price for an independent water distributor

Item	Number	Unit Value	Total Value
SECTION 1: MONTHLY DISTRIBUTION EXPENSES			
Driver	1		
Laborer	1		
Fuel[1]	See footnote		
Vehicle insurance			
Vehicle registration			
Vehicle maintenance			
Record keeping stationery			
Water purchase at Station			
Water containers			
TOTAL MONTHLY DISTRIBUTION EXPENSES			

SECTION 2: MARKET SIZE	
A. Estimated population within 4km of Safe Water Station	
A2. Estimated households with 4km of Safe Water Station	
B. Total population buying at the Safe Water Station (from Station records)	
B2. Total households buying at the Safe Water Station (from Station records)	
C. Remaining population to serve with distributed water (A – B)	
C2. Remaining household to serve with distributed water (A2 – B2)	
D. Percent of remaining population / households expected to buy distributed water	
E. Population market size (C x D)	
E2. Household market size (C2 x D)	
F. Estimated Safe Water usage per person (example – 60 liters / person / month)	
F2. Estimated Safe Water usage per household (example – 300 liters / HH / month)	
G. Monthly household market size in liters (E x F) or (E2 x F2)	
H. Monthly market size in liters from restaurants	
I. Monthly market size in liters from schools	
J. Monthly market size in liters from health centers	
K. Monthly market size in liters from other customers [SPECIFY CUSTOMERS]	
TOTAL MONTHLY MARKET SIZE IN LITERS (G + H + I + J + K)	
SECTION 3: NECESSARY MINIMUM PRICE FOR DISTRIBUTED SAFE WATER	
L. Price per distributed liter of water to only cover monthly expenses (Total Monthly Distribution Expenses / Total Monthly Market Size in Liters)	
M. Price per 20 liters of delivered water to only cover monthly expenses (H x 20)	

SECTION 4: MARGIN AND SAVINGS[2]

N. Price per Distributed Liter	O. Total Monthly Market Size in Liters	P. Monthly Income (N x O)	Q. Total Monthly Distribution Expenses	R. Monthly Gross Operating Margin (P – Q)	S. Monthly Loan Payment	T. Savings or Monthly Net Operating Margin (R – S)

[1]Monthly Fuel Cost Estimate =
(Trips per day) x (kilometers per trip) x (liters of fuel used per kilometer) x (fuel cost per liter) x (days per month)

BOOK-KEEPING MODULE: TOOL 22

MANUAL ON FINANCIAL MANAGEMENT

PURPOSE

Tool 22 provides a Manual on Financial Management that provides detailed guidance and templates covering all aspects of financial planning, bookkeeping, and accounting for a Safe Water Station. Use of all of the elements in the Tool will result in financial accounts that can guide decisions for one year and can be audited by an external professional.

AUDIENCE

The audience for whom the Manual will be useful includes:

- The agency / organization overseeing program of Safe Water Stations;
- Any individual or agency / organization lending capital investment funds to a Station Operator;
- The management and finance staff of Village Partners;
- The Safe Water Committee or other Operator of a Safe Water Station;
- A community-nominated person assigned to manage the Station's accounts; and
- Any other stakeholder with an interest in the transparent collection and use of funds by the Operator of a Safe Water Station.

The primary implementer of the Manual will be the Safe Water Station Operator. The other members of the audience should obtain a close familiarity with the Manual. They will be responsible for overseeing the accuracy of the financial information documented in the formats and templates. They will also be part of the budgeting process that is completed using the Manual.

PRE-REQUISITES

Before this Tool can be used, the Operator of the Safe Water Station must identify a person with either experience in accounting and bookkeeping or a high degree of skill in mathematics. The Manual is intended to be self-guiding, but before using it, the Operator, the agency / organization, and the Safe Water Station Partners should review the Definitions presented below under "How to Use the Tool" to ensure that all share an understanding of some of the key accounting terms that are used in the Manual.

MATERIALS NEEDED

The forms and templates provided in the Manual on Financial Management are designed for completion either by hand or by computer. Each is presented in MSWord format. If the Operator of the Safe Water Station chooses to enter information using a computer, then he / she may wish to convert the forms and templates into a spreadsheet that automates calculations. In either case, the most important material needed to implement the Manual is a reliable and accurate calculator.

MATERIALS CONTAINED IN THIS TOOL

The Tool contains a self-guided Manual of Financial Management. Chapter One provides an Overview of Financial Management to be Practiced at Safe Water Stations introducing fundamental concepts of budgeting, accounting, and banking. Chapter Two provides information and a step-by-step process to follow for Budgeting. Chapter Three gives directions for Receiving and Accounting for Income. Chapter Four provides similar guidance for Making Payments. Chapter Five introduces the activities necessary for Preparing Financial Statements and Conducting Audits. Annexes to the Manual contain the following templates to complete the requirements of each Chapter:

- Annex A: Payment and Receipt Vouchers;
- Annex B: Cash Book;
- Annex C: General Ledger:
- Annex D: Receipt and Payment Sheet;
- Annex E: Operating Margin Calculation Sheet;
- Annex F: Example Asset Register;
- Annex G: Budget Template; and
- Annex H: Quarterly Financial Statement.

HOW TO USE THE TOOL

The agency / organization, Safe Water Station Partners, and Operator should work together through each Chapter of the Manual. This will ensure that a capable person is assigned the responsibility of leading the completion of each portion of the Manual on Financial Management. None of the portions, forms, or templates is optional. Each is a necessary element to ensuring rigorous financial planning, operation, documentation, and reporting.

To help guide working through each Chapter, the following definitions are provided of the key technical accounting terms used in the Manual:

1. *Operating Expenditure*
   This is a recurrent expenditure that is incurred monthly. Operating expenditures must be met from the income received from the sale of safe water at the Safe Water Station. Typical operating expenditures include:
   - Salaries;
   - Chemicals;
   - Electricity;
   - Borewell charges;
   - Treatment system maintenance;
   - Building and other maintenance;
   - Generator fuel;
   - Laboratory tests;
   - Local travel;
   - Cleaning;
   - Insurance;
   - Filters;
   - Transportation; and
   - Miscellaneous expenses such as stationery and other petty expenses.
2. *Capital Expenditure*
   This is an amount of money spent to acquire or upgrade assets such as a building, machinery, equipment, or vehicles in order to establish or increase the capacity or efficiency of a Safe Water Station for more than one accounting period. This is also referred to as “capital spending” or “CAPEX”.

3. *Gross Operating Margin*
   This is the money that remains after paying for operating expenditures but before making payments on loans or investment advances. The Gross Operating Margin is used to pay third party loans and repay capital expenditures incurred by others.

4. *Net Operating Margin*
   This is the money that remains after payments are made toward third party loans and repaying the capital expenditure incurred by others. It can be referred to as the "savings" or the "profit" collected by the Operator of a Safe Water Station.

5. *Fixed Asset*
   This is a type of asset that is not easily sold in the regular course of a business' operation for cash and is generally owned for its contribution to the business' ability to generate income. It is expected that the benefits gained from a fixed asset will extend beyond a time span of one year. Fixed assets typically include property, plant, and equipment. Values of fixed assets are stated as the cost of acquisition including taxes, duties, freight, and other incidental expenses related to acquisition and installation. Fixed assets are sometimes referred to as a "capital assets".

6. *Depreciation*
   This is a method of allocating the cost of a fixed asset over its useful life. Businesses depreciate fixed assets for both tax and accounting purposes.

Manual on Financial Management for a Safe Water Station

1. Objectives of this Manual

This Manual is prepared to guide the financial management practices of the Operator of a Safe Water Station. Establishing rigorous financial management practices has several objectives. These include:

- Providing an orderly system for managing and recording all income and expenditures by a Safe Water Station;
- Providing transparency that enables people in the community to have faith and trust in those who are responsible for managing the community's funds;
- Providing efficient, up-to-date, and accurate information that can be used to assist in identifying, planning, budgeting, implementing, and managing Safe Water Stations; and
- Establishing an "audit trail" that can be followed by external analysts to confirm that all financial practices of the Station Operator are legal and ethical.

2. Importance of consistency and regularity for managing Safe Water Stations

This manual recommends very simple financial management practices. The materials and instructions are not enough to ensure a well-maintained financial management system. The system depends on the people who are running it and will not work unless they are:

- *Consistent*: this means that they follow the system and do things in the same way every time; and
- *Regular*: this means that they complete records either immediately after a transaction has taken place or on a regular and frequent basis. If this is not done, then the details of transactions will be forgotten or recorded incorrectly.

3. Structure of the Manual

This Manual has 5 Chapters and 8 associated Annexes. Direction to the information provided in the Annexes is presented in relevant sections of each Chapter. The Chapters are the following:

- Chapter One: describes the overall financial management system;
- Chapter Two: introduces how to develop and use a budget for financial planning and control;
- Chapter Three: provides details about how to receive and account for income;
- Chapter Four: discusses how to authorize, make, and account for expenditures; and
- Chapter Five: covers financial statements and audits.

SECTION ONE
OVERVIEW OF FINANCIAL MANAGEMENT TO BE PRACTICED AT SAFE WATER STATIONS

This Chapter introduces and explains the importance of the three core activities that comprise a financial management system:

- ***Budgeting***: for planning, controlling, and monitoring money received (income) and money spent (expenditure);
- ***Accounting***: for accurately recording income and expenditures; and
- ***Banking***: for keeping cash safe, preferably in a secure bank account.

Good financial management can only be achieved if each one of these activities is operating well and is fully understood by the Safe Water Station Partners and other stakeholders.

Budgeting looks forward into the coming months and serves two separate functions:

- *Planning income and expenditure*: A budget shows what income is expected during the year and how the Operator proposes to use it. It clearly indicates how income will be used to pay for operating expenditures and repayment of loans for acquisition of fixed assets. An annual budget must be prepared by the Safe Water Station Operator – either the Safe Water Committee or an entrepreneur – for review by the agency / organization for as long as the agency / organization has a financial interest in the Safe Water Station.
- *Controlling income and expenditure*: During the financial year, actual income and expenditures must be compared with the budget on a monthly basis so that if income falls short of expected targets, management and operations of the Safe Water Station can be altered to address the issue. Or, if the actual expenditures are more than the planned expenditure, ways of either reducing costs or increasing income can be found.

Accounting documents income and expenditure when it actually takes place. For the Operator to manage Safe Water Station funds effectively, simple but accurate accounting is needed. This is achieved by using the following documents:

- *Checkbook:* Each Safe Water Station must use a checkbook to make payments and get cash from its bank account.
- *Payment Voucher:* Every time a Safe Water Station makes a payment, either as cash or check, the transaction must be recorded by writing a Payment Voucher. A Payment Voucher is used to record all kinds of payment transactions including but not limited to purchase of goods and services and payment of salaries. A sample Payment Voucher is shown in Annex A of this Manual. These shall be filed sequentially in a Payment Voucher File along with all original, supporting documents.
- *Receipt Voucher:* Every time the Safe Water Station receives money, either as cash or check, the Operator must complete a Receipt Voucher and issue a copy to the person who gave the money. A sample Receipt Voucher is shown in Annex A of this Manual. These vouchers shall be filed sequentially in a Receipt Voucher File along with all original, supporting documents.

How to maintain a Voucher File: Both Payment and Receipt Vouchers will always be pre-numbered when printed. Each Voucher must be signed by the person preparing it and by the person authorizing or receiving payment. The amount of the Voucher is written on the Voucher in figures and in words. To the extent possible, all payments will be made through the bank by check. In cases where payment is made by cash, the signature of the recipient must be obtained on the Payment Voucher. In exceptional cases, where payment made in cash is more than US$100 (or local equivalent), the signature of the recipient should be obtained by affixing a revenue stamp on the Voucher or another official indicator of the transaction, if used in the implementing country. All original, supporting documents for each Voucher - including at a minimum the invoice, purchase order, or delivery notice - must be attached to the Voucher before filing. The Vouchers are then filed in numerical sequential order in a Voucher File along with all supporting documents.

- *Cash Book:* Details of every cash or check transaction must be entered into the Cash Book by the Safe Water Station Operator. The Cash Book is an important document as it records all transactions irrespective of their nature on a daily basis. A sample simple format for the Cash Book is included in Annex B of this Manual. It is referred to as a "Double Column" Cash Book because Receipt Vouchers are recorded in the left side column and Payment Vouchers are recorded in the right side column. Rules to be followed while completing the Cash Book include:
  - The Cash Book must be completed on a daily basis;
  - All Receipt Vouchers shall be entered on the left hand side of the Cash Book;
  - All Payment Vouchers shall be entered on the right hand side of the Cash Book;

- Once the recording of daily transactions is complete, the daily cash and bank balance shall be calculated and shown as closing balances for the day; and
- The previous day closing balance automatically becomes the opening balance for the next day.

- *General Ledger:* A General Ledger provides a summary of monthly information for both debit (expenditure) and credit (income) transactions. At the end of each month, the Safe Water Station Operator must calculate and report closing Cash Book balances. The source of most information for preparing the General Ledger is the Cash Book. A sample format for the Monthly General Ledger is included in Annex C of this Manual.
- *Receipt and Payment Sheet:* A cash accounting report called a Monthly Receipt and Payment Sheet, or "R&P Sheet", is prepared monthly by each Safe Water Station Operator providing details of initial account balances, income, expenditures, and end-of-month account balances. This is prepared by the Operator and reviewed by the Village Partner. It is regularly certified by an independent auditor appointed by the agency / organization. The format for preparing a Monthly Receipt and Payment Sheet is shown in Annex D. A completed example for a Safe Water Station in India is also provided in Annex D.
- *Gross operating Margin Calculation Sheet:* This sheet shares a great deal of information with the Receipt and Payment Sheet, but it has a different use. The Operating Margin Calculation Sheet is specifically used to calculate whether or not the Safe Water Station Operator is bringing in income that exceeds his / her costs each month. The metric by which this is determined is the Gross Operating Margin of the Safe Water Station. If this number is positive, then income from water sales is sufficient to cover all operating costs of running the Safe Water Station. The income from water sales must be more than the operating expenses if the Safe Water Station is to function as a successful business. A template for preparing a Gross Operating Margin Calculation Sheet if provided in Annex E.
- *Asset Register:* This record is maintained at each Safe Water Station to document all fixed assets in possession of the Operator of the Safe Water Station. The Asset Register provides a means of controlling all Station fixed assets by recording the acquisition, disposal, and transfer of the asset. Moreover, it allows the assets to be checked regularly to avoid misuse or misappropriation. Signature boxes are provided at the bottom of the Register to document each time the Register is updated with new information. A sample Asset Register is provided in Annex F.

Banking ensures the security of the Safe Water Station's money. The Safe Water Station must keep its money either in a secure Cash Box or in a Bank Account. A small amount of money can be kept in the Cash Box to pay for short-term needs. But, most of the Safe Water Station's money must be kept in a Bank Account. These two key items are described below:

- *Cash Box:* A cash equivalent to a maximum of two weeks' expenditures may be kept in the Cash Box.
- *Bank Account:* The Safe Water Station must keep the remainder of its money in a Bank Account because it is safe and the money can earn interest.

Who is responsible for financial management?

There are three levels of responsibility for financial management. The Safe Water Station Operator is responsible for the day-to-day control and documentation of income and expenditure. The Village Partner is responsible for ensuring the accuracy of the records kept by the Operator. The agency / organization is responsible for ensuring a professional audit is completed of the financial management at each Safe Water Station.

If the Operator of the Safe Water Station is a Safe Water Committee, then the Committee Treasurer is responsible for the financial management at the Safe Water Station. The Treasurer's functions are to:

- Prepare a budget for approval and use by the Safe Water Committee;
- Monitor the use of funds according to the approved budget;
- Manage the Bank Account and cash in the Cash Box;
- Make payments and receive income on behalf of the Safe Water Committee;
- Ensure that all necessary documents are properly obtained and filed;
- Ensure that every transaction is recorded in the Cash Book; and
- Regularly report to the Safe Water Committee on the financial status of the Safe Water Station.

If the Operator of the Safe Water Station is an entrepreneur, then the entrepreneur is responsible for each of the Treasurer's functions listed above.

SECTION TWO
BUDGETING

A budget is a forward-looking plan for expected income and expenditures.

What is the purpose of a budget?

A budget is used for planning and controlling income and expenditures.

How does a budget help with planning?

The budget helps the Operator, the Village Partner, and the agency / organization to plan for a given time period in the future. An annual budget shows, for example, what income the Operator expects to receive and how it will be spent in a period of one year. The annual budget can be divided into half yearly, quarterly, or monthly budgets as desired. The choice should be agreed to by all of the Safe Water Station Partners. Such division helps in revising the budget if it is necessary as comparison between planned and actual income and expenditure can be done on a more regular basis and differences between the budgeted and actual numbers can be identified and addressed in a timely and systematic manner.

What are the major sources of income in a budget?

The major sources of income for Safe Water Stations are the following:

- *Local government funds:* any contribution by the local government toward establishing or operating the Safe Water Station;
- *Membership fees:* the fees collected from community members that make it possible for them to buy water from the Safe Water Station
- *Sale of water:* the most important and regular source of income for Safe Water Stations is income from the sale of water. This is used first to pay operating expenses. If sufficient income is generated, then income from water sales is used to repay third party loans and repay capital investments made by the agency / organization
- *Third party loans:* these are loans obtained by the Operator to cover any shortfall of funds required to cover operating expenses. Such loans are not encouraged as they are interest-bearing loans that can be difficult to repay. Before taking a third party loan, the Operator should make all efforts to cover the shortfall by decreasing operating expenses or increasing income through more membership fees and / or sales of water

Local government funds and membership fees are one-time income and are best collected before Inauguration of the Safe Water Station. The income earned from sale of water is the regular source of funds used to pay operating costs and loan repayments.

What are the major categories of expenditures?

Expenditures are mainly divided into two categories, operational and capital:

- *Operational expenditure:* These are regularly recurring expenditures that are important for smooth running of Safe Water Stations. They primarily consist of expenditures for salaries chemicals, electricity, bore well charges, Safe Water Station repair and maintenance, generator fuel, laboratory tests, filters, and other miscellaneous expenses. These expenses must be paid for with the income received each month.
- *Capital expenditure:* This is a one-time expenditure which includes construction or renovation of civil structures of the Safe Water Station, treatment plant costs including accessories, and costs of other fixed assets such as batteries, water motors, water tanks, and piping.

Who is responsible for developing the budget?

Ideally, the Operator is responsible for developing the budget. The Operator should lead this process with active participation from other Safe Water Partners. Gradually, this responsibility will be transferred to the Operator as he / she becomes more educated on financial management and comes closer to ownership of the Safe Water Station.

What period should the budget cover?

A budget is typically developed for one calendar year, that is, January to December. For planning and management purposes, it is useful to break down the annual budget into months. This will help the Operator plan cash flow so that it never runs out of money. Breaking down the annual budget into monthly units will show the times when the Operator's financial resources are low or over-stretched and when resources are high and investments can be made. If the forward-looking budget shows that the Operator will run out of money or that there is a time when its cash balances are low, expenditures should be reorganized to stop this from happening.

How is a budget developed?

The most important point to keep in mind while developing a budget is that budgeting is a process – putting into numbers a vision of how the future will unfold, not a permanent commitment. This means that the budget should become more and more accurate each time the Safe Water Station Partners work on it over the duration of the budgeted year. By following three steps, the Operator and the Safe Water Station Partners will develop a budget for a year. A template to help guide budget preparation is presented in Annex G.

Step One – Estimate the income for the year

There are three types of income that need to be included in the budget. These are:

- *The balance of funds saved during the previous year:* even if this is only a small amount, it must be included as funds available for the new budget.
- *Income expected to be earned during the year:* estimate of the income that will be earned from the sale of water and, possibly, the sale of containers.
- *Income from other sources:* Estimates of the income expected to be earned from sources other than the sale of water or containers.

These three items are represented by Lines 1 through 12 in the budget template. The balance of funds brought forward from the previous year should be a known value. The Safe Water Station Partners will have to estimate the other sources of income. The money from these three types of income is added together to give the total expected income for the year – Line 13 in the budget template.

Step Two – Estimate the funds required to meet operational expenditures

The second step is to estimate the funds that will be required to pay for the operating expenditures of the Safe Water Station. Items expected to be needed during the operation of the Station are presented in Lines 14 through 30 in the Budget Template presented in Annex G. Current stocks of materials, for example, stationery or chemicals, should be taken into account before deciding on how much more is required to be purchased in the next year. The Safe Water Station Partners must remember that they should aim to minimize operational costs without losing the ability to manage the Safe Water Station efficiently.

Step Three – Set the objectives for the year for repayment of loans for capital expenditures

After the Safe Water Station Partners have estimated the total expected income for the year for the Safe Water Station, then they can set its financial objectives for repayment of any loans they obtained to support the Safe Water Station. These may include a capital investment loan provided to help launch the Safe Water Station, a loan provided to supply Safe Water Containers, or other loans acquired by the Operator. Before initiating this exercise, the Safe Water Station Partners must confirm that the estimate of income for the year is equal to or greater than the estimate of funds required to meet only operational costs. If estimated income is greater than estimated costs, then funds will be available to be budgeted for repayment of loans.

How can a budget be used as a monitoring tool?

The budget is the Safe Water Operator's plan to meet certain objectives that are set at the beginning of the year. The Operator, either the Safe Water Committee or an entrepreneur, monitors income and expenditure each month comparing them with the expected figures in the budget to monitor progress toward the annual objectives. The Operator should not approve any unbudgeted expenditure until satisfactory justification is provided by the Operator to the Safe Water Station Partners for incurring such cost. This will help the Safe Water Partners to prevent unplanned expenditures.

SECTION THREE
RECEIVING AND ACCOUNTING FOR INCOME

The Safe Water Station Operator receives cash on most the days of the month. This income must be properly accounted for each day using Receipt Vouchers (see Annex A) and the Cash Book (see Annex B). The following steps are presented to guide the recording of each financial transaction in which income is received by the Operator or the Station Supervisor:

Step One – Assign one person to receive cash

Only the Safe Water Station Supervisor should receive cash.

Step Two – Issue a Receipt Voucher

A Receipt Voucher is used to record any receipt of cash from a Safe Water Station customer. Each time a cash payment is received by the Supervisor, he / she must immediately issue a Receipt Voucher to the person paying the cash. A copy of the Receipt Voucher is kept by the Supervisor. A sample Receipt Voucher is contained in Annex A. Each Voucher must contain all the required information such as amount in figures and words, name of the person paying, narrative description of the purpose of the payment, and the signature of the person receiving the cash.

Step Three – Secure the cash

All cash managed at the Safe Water Station must be placed in a Cash Box that is kept in a safe place. At the end of each day, if the amount of cash received is significant it must be deposited in the bank. For

security reasons, there should be an upper limit to the amount of cash held in the Cash Box. We suggested earlier that this never exceed two weeks of anticipated expenditures. All cash above the amount must be transferred to the bank account.

Step Four – Fill in the Cash Book

A sample Cash Book is presented in Annex B. At the end of each day, the Station Supervisor and / or the Operator must complete the Cash Book. The date and an entry for each Receipt or Payment Voucher written on that day are entered in separate lines in the Book. If the transaction was in cash, then the entry is placed in the "Cash Amount" column. If the transaction uses a bank check, then the entry is placed in the "Bank Amount" column. To complete Cash Book accounting, both receipts and payments are totaled, and a closing cash balance is written at the end of the page.

Step Four – Inspect accuracy and account for cash

A representative of the agency / organization should frequently, but at irregular intervals, check the amount of cash-on-hand and confirm that it conforms to the records in the Cash Book. This person should not be directly involved in financial management of the Safe Water Station. These inspections will ensure the accuracy of daily records and stop those involved in cash management from taking unauthorized loans for their own use.

SECTION FOUR
MAKING PAYMENTS

In most Safe Water Stations, making payments for goods and services is one of the most common tasks of the Operator. It is important that the Operator only makes payments that are included in the budget and that are fully authorized. In order to monitor that this is the case, accurate records of the Operator's cash-in-hand, bank account balance, and records documented in the Cash Book must be available to the Safe Water Station Partners and the agency / organization for as long as they have a financial interest in the operation of the Station.

For each payment that is planned, the Operator must ensure that there is a budget line for the expenditure and must know how much money is available in that budget line. He / she must also insist on an invoice for all purchases. An invoice is proof, provided by the supplier, that the goods requested actually cost the given amount. Finally, the Operator must ensure that a Payment Voucher is completed for each expense, and that the information from the Voucher is entered into the Cash Book. As described earlier, the Voucher must be attached to the invoice and placed into the Payment Voucher File in number order.

The following steps shall be followed for making payments:

Step One – Authorizing the expenditure

It is not normally possible to authorize every expense. The Operator must come to written agreement with the Safe Water Station Partners on how large expenditures must be before they need to be authorized by the Partners. The Payment Voucher contained in Annex A has a line for the signature for authorization for expenditures above the agreed upon amount.

Step Two – Proof of expenditure

There must be proof for every expense which is made either in cash or by check from the bank account. For individual purchases, the receipt or invoice issued on purchase is the proof of payment. The person who receives the receipt or invoice must make sure that it has been correctly completed to reflect the item or service purchased and the provider of the item or service. After approval, the receipt or invoice is attached to the Payment Voucher and placed in the Payment Voucher File.

Step Three – Recording of expenditure

Expenditures made either by cash or bank check must be recorded on the same day in the Cash Book. In the sample Cash Book provided in Annex B, Payment Vouchers are recorded on the right side of the page. The date and Payment Voucher Number are entered along with the Particulars as written on the Payment Voucher. If the expenditure is made with cash, the value of the Voucher is entered in the "Cash Amount" column. If the expenditure is made with a bank check, then the value of the Voucher is entered in the "Bank Amount" column. At the end of each day, the total of both the income (receipt) and expenditure (payment) sides of Cash Book are calculated and the closing daily balance of cash is entered.

Step Three – Systematic filing of Payment Vouchers

All Payment Vouchers attached to related original invoices, receipts, and other supporting documents are sequentially filed in the Payment Voucher File. The File so prepared will be kept ready for reference / inspection by a representative of the Village Partner or the agency / organization as long as they have a financial interest in the operation of the Station.

SECTION FIVE
PREPARING FINANCIAL STATEMENTS AND CONDUCTING AUDITS

Financial statements and audit reports communicate to a range of internal and external stakeholders. These tell them about the financial status of the Safe Water Station and the transparency and accountability of the Station.

What are financial statements?

Financial statements are reports that give an accurate picture, at regular intervals (monthly, quarterly, six-monthly, annually), of the income earned by the Operator and how it has been spent. The statement also shows a comparison of actual income and expenditure against budgeted income and expenditure. A template for a Quarterly Financial Statement is presented in Annex H.

How are financial statements created?

The mechanism of creating a financial statement will depend on how the Operator is keeping the financial records for the Safe Water Station. If the Operator follows the guidance of this Manual and uses the recommended Cash Book, then a field accountant will have to extract and analyze the information to transfer if from the Cash Book to the format of the Financial Statement. To do this, the field accountant will need to:

- Go through the Cash Book and allocate each transaction to a budget line;
- Calculate the total income or expenditure against each budget line;
- Calculate the difference between the budgeted amount and the actual income or expenditure for each budget line;
- Summarize the results in a Financial Statement.

What is an audit?

An audit is an independent assessment of the truth and accuracy of the financial documentation and reporting of the Safe Water Station Operator. The auditor should be considered as someone who can help and assist the Operator rather than as an outsider looking for problems. The auditor will be employed by the agency / organization as long as it has a financial interest in the Safe Water Station to review the following records of accounts maintained at each Safe Water Station:

- Voucher Files with all original supporting documents;
- Cash Book;
- General Ledgers;
- Bank Statements;
- Asset List;
- Monthly Receipt and Payment Sheets; and
- Financial Statements.

In addition to this, the auditor may also review, if so required, any other document that is maintained at the Safe Water Station.

How often should an audit be carried out?

Until auditing shows a flawless financial management system in operation, a monthly audit should be carried out for each Safe Water Station by an independent auditor hired by the agency / organization. When it appears that the Station Operator is keeping adequate records, the interval between audits can be made longer.

Plant-level Auditing at Safe Water Stations

How does a Safe Water Station prepare for an audit?

In preparation for an audit, the Operator and/or a field accountant must ensure that:

- The Voucher Files are complete and in numerical order;
- All entries in the Cash Book have been made;
- All totals in all records are correct;
- All transactions from the Cash Book are properly recorded in the General Ledger;
- A reconciliation with the bank statement has been done; and
- Receipt and Payment Sheets and Financial Statements accurately reflect Station operation.

How is an audit carried out?

The auditor will:

- Inspect the Cash Book;
- Cross-check the entries with the supporting vouchers and documents;
- Compare the Cash Book and the entries in the Bank Statement;
- Examine the General Ledger;
- Review and confirm the accuracy of the Asset List;
- Examine Receipt and Payment Sheets and Financial Statements; and
- Examine the entire financial system for weaknesses.

The auditor will also need to discuss the financial system with the Village Partner and, as appropriate, with the agency / organization.

When is an audit complete?

An audit is complete when the auditor signs a certificate and attaches it to the most recent Financial Statement. The certificate and the Financial Statement will then be presented to Safe Water Station Partners and, as appropriate, the agency / organization for consideration. The certificate will:

- Describe the audit that was completed;
- Present an analysis of the effectiveness of the financial management system used by the Operator; and
- Make specific recommendations as to how the system might be improved.

SECTION SIX
CONCLUSION

Financial management is hard work. It has to be done accurately and record keeping cannot be allowed to fall behind or it will achieve nothing. It must be done with honesty and transparency and for the benefit of all. It is a tough task and requires a lot of self-discipline. However, it can be very rewarding for the community to know that good financial management has helped them to a have a well-run, daily source of safe drinking water.

Manual on Financial Management – Annex A

PAYMENT AND RECEIPT VOUCHERS

Voucher Number _____	**PAYMENT VOUCHER**	**Date** _____
PARTICULARS		**AMOUNT**
NAME _____		
NARRATION _____ _____		
AMOUNT IN WORDS _____		

APPROVED BY _____ RECEIVER SIGNATURE _____

……

[INSERT ORGANIZATION LOGO]	[INSERT ORGANIZATION NAME]	[INSERT LOCAL IDENTIFICATION LOGO]
Voucher Number _____	**RECEIPT VOUCHER**	**Date** _____
PARTICULARS		**AMOUNT**
NAME _____		
NARRATION _____ _____		
AMOUNT IN WORDS _____		

APPROVED BY _____ RECEIVER SIGNATURE _____

Manual on Financial Management – Annex B

CASH BOOK

CASH BOOK FOR THE MONTH OF _____ YEAR _____												
SAFE WATER STATION NAME:												
Date	Receipt Voucher Number	Receipt Voucher Particulars	Cash Amount	Bank Amount	Total		Date	Payment Voucher Number	Payment Voucher Particulars	Cash Amount	Bank Amount	Total

Manual on Financial Management – Annex C

MONTHLY GENERAL LEDGER

GENERAL LEDGER FROM [INSERT BEGINNING DATE] TO [INSERT ENDING DATE]						
SAFE WATER STATION NAME:						
Date	**Voucher Number**	**Voucher Particulars**	**Cash Book Folio Number**	**Receipts**	**Payments**	**Balance**

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Manual on Financial Management – Annex D RECEIPT AND PAYMENT (R&P) SHEET

No.	Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Income (all values in [INSERT LOCAL CURRENCY NAME] – 1 US$ = xxx [INSERT LOCAL CURRENCY NAME])														
1	Initial Balance in Cash													
2	Initial Balance in Bank													
3	Local Government Funds													
4	Loans from Others													
5	Water Sales at Safe Water Station													
6	Water Sales Through Distribution													
7	Functional Sales													
8	Total Water and Functional Sales													
9	Other Sources of Revenue													
10	Bank Interest													
11	Membership Fees													
12	Container Sales													
13	TOTAL INCOME													
Expenditures (all values in [INSERT LOCAL CURRENCY NAME])														
14	Operator Salary													
15	Supervisor Salary													
16	Chemicals													
17	Water Tank													
18	Electricity													
19	Borewell Charges													
20	Plant Construction													
21	Treatment System Maintenance													
22	Building & Other Maintenance													
23	Generator Fuel													
24	Laboratory Tests													
25	Local Travel													
26	Cleaning													
27	Insurance													
28	Filters													
29	Transportation													
30	Miscellaneous Expenses													
31	Capital Loan Repayment													
32	Container Loan Repayment													
33	Other Loan Repayment													
34	TOTAL EXPENDITURES													
35	BALANCE													
36	Cash in Hand													
37	Cash at Bank													
38	Balance as per Bank Statement													
39	Difference in Bank Accounting													

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EXAMPLE: MONTHLY RECEIPT AND PAYMENT (R&P) SHEET - Nizampally Village 2011

No.	Item	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Total
Income (all values in Indian Rupees – 1 US$ = 53 Indian Rupees)														
1	Initial Balance in Cash	13,025	19,587	20,454	17,344	17,894	41,560	44,965	40,764	42,346	39,245	43,505	30,853	
2	Initial Balance in Bank	50,807	56,807	67,165	47,575	15,100	15,100	21,925	6,925	6,925	6,925	6,925	6,925	
3	Local Government Funds	---	---	---	---	---	---	---	---	---	---	---	---	
4	Loans from Others	---	---	---	---	---	---	---	---	---	---	---	---	
5	Water Sales at Safe Water Station	14,520	9,840	17,040	18,240	21,720	16,080	12,960	11,400	13,216	11,760	10,080	8,760	**1,65,616**
6	Water Sales Through Auto	2,600	4,435	6,060	7,230	10,380	10,325	4,460	6,015	---	4,436	3,797	2,092	**61,830**
7	Functional Sales	50	---	---	100	---	---	---	---	310	50	---	---	**510**
8	**Total Water and Functional Sales**	**17,170**	**14,275**	**23,100**	**25,570**	**32,100**	**26,405**	**17,420**	**17,415**	**13,526**	**16,246**	**13,877**	**10,852**	**2,27,956**
9	Sale of Old Water Motor	---	---	---	---	---	19,850	---	---	---	---	---	---	**19,850**
10	Bank Interest	---	---	---	---	---	---	---	---	---	---	---	706	**706**
11	Membership Fees	---	200	---	---	200	---	---	---	---	---	---	---	**400**
12	Container Sales	750	2,500	250	250	250	---	1,000	---	250	---	---	---	**5,250**
13	**TOTAL INCOME**	**81,752**	**93,369**	**1,10,969**	**90,729**	**65,544**	**1,02,915**	**85,310**	**65,104**	**63,407**	**62,416**	**64,307**	**49,336**	**3,17,994**
Expenditures (all values in Indian Rupees)														
14	Operator Salary	---	---	---	---	---	---	---	---	---	---	---	---	**0**
15	Supervisor Salary	---	3,000	6,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	**36,000**
16	Chemicals	---	250	300	3,000	3,700	---	500	600	---	---	---	---	**8,350**
17	Water Tank	---	---	---	---	---	---	---	---	---	---	---	---	**0**
18	Electricity	4,830	---	5,570	8,365	---	---	11,660	7,321	---	---	10,600	---	**48,346**
19	Borewell Charges	---	2,000	4,000	3,000	2,000	2,000	2,000	4,000	2,000	2,000	2,000	2,000	**27,000**
20	Plant Construction	---	---	---	---	---	---	---	---	---	---	---	---	**0**
21	Treatment System Maintenance	---	500	---	---	---	---	---	---	---	5,998	9,260	8,897	**24,655**
22	Building & Other Maintenance	---	---	---	---	---	---	---	---	---	---	---	---	**0**
23	Generator Fuel	---	---	---	---	---	---	---	---	---	---	---	---	**0**
24	Laboratory Tests	---	---	---	---	---	---	---	---	---	---	---	---	**0**
25	Local Travel	---	---	---	---	---	---	---	---	---	---	---	---	**0**
26	Cleaning	---	---	---	---	---	---	---	---	---	---	---	---	**0**
27	Insurance	---	---	---	---	---	---	---	---	---	---	---	---	**0**
28	Filters	---	---	---	---	---	---	---	---	---	---	---	---	**0**
29	Transportation	---	---	---	---	---	---	---	---	---	---	---	---	**0**
30	Miscellaneous Expenses	528	---	190	370	184	25	461	912	177	988	1,669	---	**5,504**
31	Capital Loan Repayment	---	---	---	32,334	---	31,000	20,000	---	11,700	---	---	---	**95,034**
32	Other Loan Repayment	---	---	---	---	---	---	---	---	---	---	---	---	**0**
33	Container Loan Repayment	---	---	30,000	7,666	---	---	---	---	---	---	---	---	**37,666**
34	**TOTAL EXPENDITURES**	**5,358**	**5,750**	**46,060**	**57,735**	**8,884**	**36,025**	**37,621**	**15,833**	**16,877**	**11,986**	**26,529**	**13,897**	**2,82,555**
35	**BALANCE**	**76,394**	**87,619**	**64,909**	**32,994**	**56,660**	**66,890**	**47,689**	**49,271**	**46,170**	**50,430**	**37,778**	**35,439**	**35,439**
36	Cash in Hand	19,587	20,454	17,344	17,894	41,560	44,965	40,764	42,346	39,245	43,505	30,853	25,518	
37	Cash at Bank	56,807	67,165	47,575	15,100	15,100	21,925	6,925	6,925	6,925	6,925	6,925	9,831	
38	Balance as per Bank Statement	56,807	67,165	47,575	15,100	15,100	21,925	6,925	6,925	6,925	6,925	6,925	9,831	
39	Difference in Bank Accounting	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

Manual on Financial Management – Annex E

GROSS OPERATING MARGIN CALCULATION SHEET

No.	Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Income (all values in [INSERT LOCAL CURRENCY NAME] – 1 US$ = xxx [INSERT LOCAL CURRENCY NAME])														
1	*Volume of Water Sold (liters)*													
2	Total Water and Functional Sales													
3	Promotion Contribution Value													
4	TOTAL INCOME FROM WATER SALES													
Direct Operating Costs (all values in [INSERT LOCAL CURRENCY NAME] – 1 US$ = xxx [INSERT LOCAL CURRENCY NAME])														
5	Operator Salary													
6	Supervisor Salary													
7	Chemicals													
8	Water Tank													
9	Electricity													
10	Borewell Charges													
11	Treatment System Maintenance													
12	Building & Other Maintenance													
13	Generator Fuel													
14	Laboratory Tests													
15	Local Travel													
16	Cleaning													
17	Insurance													
18	Filters													
19	Transportation													
20	Miscellaneous Expenses													
21	TOTAL DIRECT OPERATING COSTS													
22	GROSS OPERATING MARGIN (Line 4 – Line 21)													

EXAMPLE: GROSS OPERATING MARGIN CALCULATION SHEET – Nizampally Village 2011

No.	Item	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Total
Income (all values in Indian Rupees – 1 US$ = 53 Indian Rupees)														
1	***Volume of Water Sold (liters)***	*72,580*	*70,060*	*1,00,140*	*1,18,220*	*1,52,940*	*1,25,600*	*78,920*	*79,500*	*68,600*	*78,300*	*71,040*	*53,340*	***10,69,240***
2	**Total Water and Functional Sales**	17,170	14,275	23,100	25,570	32,100	26,405	17,420	17,415	13,526	16,246	13,877	10,852	**2,27,956**
3	**Promotion Contribution Value**	(2,654)	(263)	(3,072)	(1,926)	(1,512)	(1,285)	(1,636)	(1,515)	194	(586)	331	(184)	**(14,108)**
4	**NET INCOME FROM WATER SALES**	**14,516**	**14,012**	**20,028**	**23,644**	**30,588**	**25,120**	**15,784**	**15,900**	**13,720**	**15,660**	**14,208**	**10,668**	**2,13,848**
Direct Operating Costs														
5	**Operator Salary**	---	---	---	---	---	---	---	---	---	---	---	---	**0**
6	**Supervisor Salary**	---	3,000	6,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	**36,000**
7	**Chemicals**	---	250	300	3,000	3,700	---	500	600	---	---	---	---	**8,350**
8	**Water Tank**	---	---	---	---	---	---	---	---	---	---	---	---	**0**
9	**Electricity**	4,830	---	5,570	8,365	---	---	11,660	7,321	---	---	10,600	---	**48,346**
10	**Borewell Charges**	---	2,000	4,000	3,000	2,000	2,000	2,000	4,000	2,000	2,000	2,000	2,000	**27,000**
11	**Plant Construction**													
12	**Treatment System Maintenance**	---	500	---	---	---	---	---	---	---	5,998	9,260	8,897	**24,655**
13	**Building & Other Maintenance**	---	---	---	---	---	---	---	---	---	---	---	---	**0**
14	**Generator Fuel**	---	---	---	---	---	---	---	---	---	---	---	---	**0**
15	**Laboratory Tests**	---	---	---	---	---	---	---	---	---	---	---	---	**0**
16	**Local Travel**	---	---	---	---	---	---	---	---	---	---	---	---	**0**
17	**Cleaning**	---	---	---	---	---	---	---	---	---	---	---	---	**0**
18	**Insurance**	---	---	---	---	---	---	---	---	---	---	---	---	**0**
19	**Filters**	---	---	---	---	---	---	---	---	---	---	---	---	**0**
20	**Transportation**													
21	**Miscellaneous Expenses**	528	---	190	370	184	25	461	912	177	988	1,669	---	**5,504**
22	**TOTAL DIRECT OPERATING COSTS**	**5,358**	**5,750**	**16,060**	**17,735**	**8,884**	**5,025**	**17,621**	**15,833**	**5,177**	**11,986**	**26,529**	**13,897**	**1,49,855**
23	**GROSS OPERATING MARGIN**	**9,158**	**8,262**	**3,968**	**5,909**	**21,704**	**20,095**	**(1,837)**	**67**	**8,543**	**3,674**	**(12,321)**	**(3,229)**	**63,993**

Manual on Financial Management – Annex F

EXAMPLE ASSET REGISTER

ASSET REGISTER									
SAFE WATER STATION NAME:									
#	**Item**	**No.**	**ID Number**	**Supplier**	**Date**	**Inventory Code**	**Donor**	**Action (Acquisition, Disposal, Transfer)**	**Signature**
1	Treatment System								
2	Membership Cards								
3	Cash Box								
4	Bore Well Pump								
5	pH Meter and Probe								
6	Total Dissolved Solids (TDS) Meter and Probe								
7	Chlorine Measuring Device								
8	Water Meter								
9	Water Tank(s)								
10	Remote Monitoring System Panel and Sensors								
VERIFIED BY:						**DATE:**			
VERIFIED BY:						**DATE:**			
VERIFIED BY:						**DATE:**			
VERIFIED BY:						**DATE:**			
VERIFIED BY:						**DATE:**			

Manual on Financial Management – Annex G BUDGET TEMPLATE

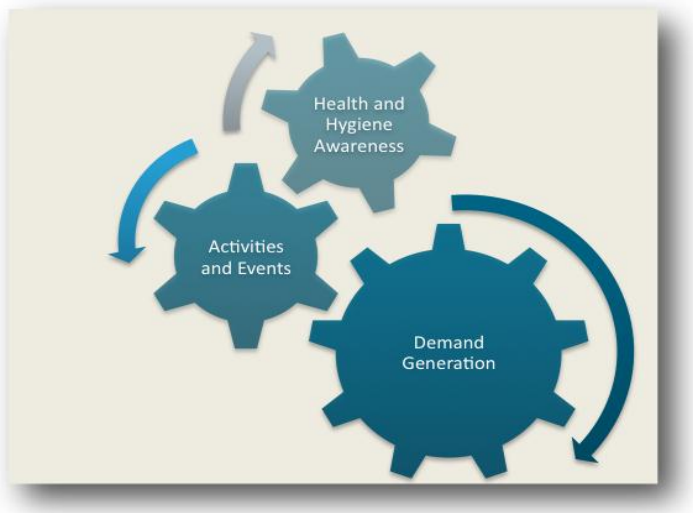
No.	Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Expected Income (all values in [INSERT LOCAL CURRENCY NAME] – 1 US$ = xxx [INSERT LOCAL CURRENCY NAME])														
1	Initial Balance in Cash													
2	Initial Balance in Bank													
3	Local Government Funds													
4	Loans from Others													
5	Water Sales at Safe Water Station													
6	Water Sales Through Distribution													
7	Functional Sales													
8	Total Water and Functional Sales													
9	Other Sources of Revenue													
10	Bank Interest													
11	Membership Fees													
12	Container Sales													
13	TOTAL INCOME													
Expected Expenditures (all values in [INSERT LOCAL CURRENCY NAME])														
14	Operator Salary													
15	Supervisor Salary													
16	Chemicals													
17	Water Tank													
18	Electricity													
19	Borewell Charges													
20	Plant Construction													
21	Treatment System Maintenance													
22	Building & Other Maintenance													
23	Generator Fuel													
24	Laboratory Tests													
25	Local Travel													
26	Cleaning													
27	Insurance													
28	Filters													
29	Transportation													
30	Miscellaneous Expenses													
31	Capital Loan Repayment													
32	Container Loan Repayment													
33	Other Loan Repayment													
34	TOTAL EXPENDITURE													
35	BALANCE													

Manual on Financial Management – Annex H QUARTERLY FINANCIAL STATEMENT

Quarterly Financial Statement from [INSERT MONTH] to [INSERT MONTH] in Year [INSERT YEAR] – Quarter Number [INSERT 1, 2, 3, or 4]							
Safe Water Station Name:							
No.	Item	A. Annual Budget Amount	B. Total Through Previous Quarter	C. Current Quarter	D. Total To-Date (B + C)	E. Percent of Budget To-Date (D / A)	F. Budget Remaining (A – D)
Income (all values in [INSERT LOCAL CURRENCY NAME] – 1 US$ = xxx [INSERT LOCAL CURRENCY NAME]							
1	Initial Balance in Cash						
2	Initial Balance in Bank						
3	Local Government Funds						
4	Loans from Others						
5	Water Sales at Safe Water Station						
6	Water Sales Through Distribution						
7	Functional Sales						
8	Total Water and Functional Sales						
9	Other Sources of Revenue						
10	Bank Interest						
11	Membership Fees						
12	Container Sales						
13	TOTAL INCOME						
Expected Expenditures (all values in [INSERT LOCAL CURRENCY NAME]							
14	Operator Salary						
15	Supervisor Salary						
16	Chemicals						
17	Water Tank						
18	Electricity						
19	Borewell Charges						
20	Plant Construction						
21	Treatment System Maintenance						
22	Building & Other Maintenance						
23	Generator Fuel						
24	Laboratory Tests						
25	Local Travel						
26	Cleaning						
27	Insurance						
28	Filters						
29	Transportation						
30	Miscellaneous Expenses						
31	Capital Loan Repayment						
32	Container Loan Repayment						
33	Other Loan Repayment						
34	TOTAL EXPENDITURES						

Introduction to the Drink Module

The Drink Module is the first of two mutually supportive but separate Modules: Drink and Demand. The Drink Module focuses on the changes that are necessary and doable to improve hygiene and health. The Demand Module focuses on the generation of demand to expand the customer base of the Safe Water Station and promote the purchase of Safe Water. Improving hygiene and health requires an understanding of the ways in which people change personal behaviors. Affecting purchasing behavior relies on identifying the ways in which people make decisions regarding the allocation of household resources. Their similarities lie in their reliance on a combination of broad public and individual communication approaches implemented through activities and events that target the motivators of hygiene behavior change and the drivers behind purchasing behavior change.



The objective of the Drink Module is to provide Tools that are targeted toward changing two key hygiene behaviors that are generally accepted to be the most effective at preventing waterborne diseases: (1) safe transport and storage of household drinking water, and (2) hand washing at key times of each day. In order to understand how to affect these changes, it is important to review and clarify some important terminology. Three phrases are often used interchangeably in the water, sanitation, and hygiene (WASH) profession: “health education”, “hygiene education”, and “hygiene promotion”. However, they are quite different from one another, and effective programs understand and make use of this difference.

- ***Health education*** is the process of interaction between people to discuss their health situation, aiming to create awareness about health status and decide jointly how the situation can be improved.
- ***Hygiene education*** included all activities aimed at encouraging behaviors that will help to prevent water and sanitation-related diseases.
- ***Hygiene promotion*** is the planned approach to preventing diarrheal and other water and sanitation related diseases through the widespread adoption of safe hygiene behaviors.

In the Tool Kit, we give preference to the term ***hygiene promotion*** because our success is measured by the adoption of the two key hygiene behaviors. “Health education” and “hygiene education” are often still used in their narrow meanings of spreading information and giving instructions. On their own, these activities are seldom suitable to bring about long-term improved conditions and behaviors. But, the nonetheless play roles in contributing to a hygiene promotion program.

Effective hygiene promotion reduces the priority risky hygiene practices and conditions for women, children, and men. It does so in a measurable way, to a significant level, in a pre-set period, and within available resources. It aims to have a positive influence on the health conditions and

behaviors of large populations. It reaches out directly to individual households and persons in these households through a combination of mass communication and interpersonal contacts.

But, hygiene promotion programs need to focus. They are at their most successful when they target only one or two specific conditions or behaviors that constitute a particular risk. Examples that are directly relevant to the goals of Safe Water Stations are (1) proper hand washing habits by all at critical times, and (2) only using Safe Water for drinking and food preparation. The Drink Module focuses on promoting these two key behaviors but also includes educational material on other waterborne threats including fluoride, arsenic, nitrate, and other chemicals. These can be eliminated by effective treatment systems at the Safe Water Station. Practicing the two key behaviors will keep the Safe Water clean from the Station to the lips.

The people targeted through hygiene promotion are not one homogeneous group. They consist of older and younger people, women and men, people with different class, ethnic, and religious backgrounds, living and working in different environments. Although the primary targets will be those carrying out the risky behaviors, it is also important to reach others who can influence how they behave. So, fathers, mothers-in-law, neighbors, grandmothers, and social contacts are "secondary" targets for hygiene promotion so that they may exert peer pressure. Also included in hygiene promotion are opinion leaders and people in authority in different walks of life. Teachers, religious leaders, government officers, politicians, and informal community leaders are the "tertiary" targets for efforts which improve their understanding of health, health impacts, and other benefits from specific behavioral changes. Each group has its own and often different interests, responsibilities, skills, and resources. The nature of risks, and the possibilities to reduce risks, is also different. Most importantly, the channels for communication will be different for the different groups. Some segmentation is needed for the target groups, whether primary, secondary, or tertiary.

The Tools presented in the Drink Module are intended to guide the planning of a hygiene promotion program by providing guidance to answer six questions:

- What are the risky behaviors of the different groups, including as seen by them?
- Who are the primary, secondary, and tertiary target audiences?
- What can motivate behavior change of the target groups?
- What may prevent this change in each target group?
- How can different target audiences be reached and involved?
- How do we measure the effects, and the cost-effectiveness, of the program?

The answers need to come not just from health and communication specialists, but also from the different user groups in the program area. The first Tool in this Module provides an example of how information about the norms, behaviors, and potential of hygiene promotion in a community can be organized. The second Tool provides core information about the linkages between water and health, and the importance of using Safe Water to protect and nourish the body. The third Tool in the Drink Module provides examples of the importance and ways to approach three

of the target audiences most directly able to change the two key hygiene behaviors: children, teachers, and health care professionals.

There are many reasons why people may adopt better hygiene behaviors: more convenience, less work, more status, self-respect, better life for children, more safety for women and girls, less walking distance, solving problems of the sick or elderly, improving hygiene as a condition for marriage, following an example by neighbors or admired people, responding to pressure from others, or meeting needs of visiting relatives. Different groups have different reasons. Finding out what messages and communication channels best reach each target group is the foundation of successful hygiene promotion programs.

Figure 1: The Tools in the Drink Module of the Safe Water Station Local Operating Unit

The Safe Water Station Local Operating Unit

screening > community > 

Tool Kit Modules →	
Drink Module Tools:	Outcome
23. Obtaining Consumer Insights	**Safe Water Station Partners document their understanding of actual and potential consumers to organize a focused program promoting key hygiene behaviors and purchasing behavior**
24. Communicating Fundamentals of Water and Health	**Safe Water Station Partners, Operators, and Supervisors understand and can communicate about why the body needs Safe Water, the contaminants in drinking water, the diseases these contaminants cause, and the role of Safe Water in preventing these diseases**
25. Approaches to Hygiene Promotion	**Safe Water Station Partners and Operators understand the most important hygiene behaviors, their role as communicators, and the many ways they can engage children, teachers, and health care professionals to promote adoption of the key hygiene behaviors**

TOOL 23

OBTAINING CONSUMER INSIGHTS

PURPOSE

Understanding consumer aspirations and practices is the first step in developing either (1) a hygiene behavior change program and / or (2) a purchasing behavior change program. The former is focused on health improvement and emphasizes diarrheal disease reduction. The latter is focused on expanding the customer base of a Safe Water Station. Gaining this insight into consumer thinking can be achieved through in-depth interviews, observations, and, sometimes, focus group discussions. The purpose of this Tool is to provide examples of the variety of consumer insights that need to be obtained in order to construct focused hygiene and purchasing behavior change programs.

AUDIENCE

This Tool is for use by agencies/organizations to work with Safe Water Station Partners to develop methods of inquiry that result in the findings that will guide strategic communication and participatory programs that address (1) hygiene behavior change and (2) purchasing behavior change.

PRE-REQUISITES

Understanding consumer aspirations, capacities, and practices is the pivot point that determines the extent and success of communication efforts. It is therefore necessary that the understanding is comprehensive, objective, and accurate. A pre-requisite of this is the establishment of a trusted relationship with active and potential consumers. Hopefully, this is in place as a result of collaborative completion of Tools 1 through 22 of the Tool Kit.

MATERIALS NEEDED

Consumer insights can be obtained through highly structured information collection or through very informal conversations and observations. The former may require information-collection instruments such as household survey questionnaires, focus group guides, or key informant interview forms. The latter can be conducted without any formalized information collection tools – simply by listening, inquiring, and observing the commonalities in a community.

MATERIALS CONTAINED IN THIS TOOL

This Tool presents categorized findings from Safe Water Network field programs. The headings and categories are intended to guide agencies / organizations toward the broad types of findings that they should prepare to uncover during their formal or informal inquiries. The representative findings presented in this Tool were gleaned from two years of work in the field, informal enquiries made by Safe Water Network field personnel, and the everyday interactions of local Safe Water Station Partners.

The findings are first presented as general Consumer Insights. The second part of the Tool provides an overview of some of the typical hurdles that limit adoption and utilization of Safe Water, alongside some of the messaging content, channels, and audiences that can be leveraged to change either hygiene or purchasing behaviors.

HOW TO USE THE TOOL

This Tool is to be used as a guide to the categories of information that need to be documented to understand the aspirations, capacities, and behaviors of current and potential consumers. In the first part of the Tool, information on each is categorized under 7 headings: Myths, Perceptions, Drivers, Price, Quantity, Influencers, and Locations. When the information is categorized in this way, the Safe Water Station Partners can work to agree on a small set of key messages, communication channels, and target audiences One set to improve hygiene behaviors, and another set to affect purchasing behaviors. The basic structure of a communication program – addressing both hygiene behaviors and purchasing behaviors – is shown in the second part of this Tool. Here, the information collected is reorganized under 4 headings that form the basis of a communication program: Hurdles to be addressed, Content to address the Hurdles, Channels to communicate the Content, and the Audience to most effectively Channel messages to. The example responses presented in each part of the Tool are those gathered, organized, and used by the Safe Water Network to guide its hygiene behavior and demand generation activities in India. They are merely representative of the types of findings that are likely to be uncovered in other localities.

Hygiene behaviors – safe water collection and storage, and hand washing at critical times – are the focus of the remainder of the Drink Module. Purchasing behaviors are dealt with in the follow-on Demand Module.

Safe water collection and storage: The scope and seriousness of health risks influences the need for behavior change regarding safe water management. The near eradication of guinea worm in Rajasthan, India and in West African countries is an example of effective programs. Drinking water was kept clean of the pathogen from collection through consumption. Global experience shows that such change can be achieved by combining (1) protection of water sources, (2) communication strategies that combine mass approaches with interpersonal contacts, (3) treatment, and (4) monitoring of household practices.

Hygienic hand washing: Soiled hands are an important source of transmitting diarrhea. There is ample proof that hand washing before preparing and eating food and after defecation and cleaning children's bottoms are effective preventive behaviors. Benefits of hygienic hand washing behaviors are universal in all areas and with all groups, but children - and parents and siblings caring for young children - are especially important groups. Hand washing is best done with soap and enough water for rinsing. However, if soap is not available or affordable, ashes, clean mud, or local plants can also be hygienically used. If nothing better is available, firm rubbing while rinsing under a flow is the best alternative.

But hygiene behavior change requires more than just communication or education. To target efforts, the Safe Water Partners need to break down each desired behavior into essential actions, and learn about current practices and which essential actions are least practiced and why. In order to address this challenge, the Partners should learn through formative research what people are willing to try and are able to do, and what most influences them positively and negatively. Based on these finding, the Partners can then develop a strategy by using the findings as the basis for organizing an approach to target key behaviors, through logical channels, and reaching targeted audiences.

Example Consumer Insights for Planning for Behavior Change

1. ***Myths*: need to be tackled / kept in mind during designing the program**
   - Groundwater is pure
   - Water cannot cause illness since illnesses are sporadic and not constant
   - "Sagar" water, another branded RO water being sold in the region, is pure
   - Boiling treats contaminants in water including fluoride and "chalk"
   - Health problems can be prevented by consuming safe water only sporadically
   - Schemes are not to be trusted
2. ***Perceptions*: consumer ideas on negative effects of contaminated water**
   - Throat pain, body and joint pains, bone weakness, bending of bones amongst older people
   - Diarrhea, vomiting, and fever in children
   - Difficulty in walking after the age of 40 and inability to walk without a stick after age 50
3. ***Drivers*: the key motivations among consumers for purchasing Safe Water**
   - Distance (a BIG one!). People are willing to pay a premium to avoid traveling distances and prefer to suffer health issues rather than travel distances to collect better quality water
   - Time (people avoid boiling water for this reason as well as energy costs)
   - Taste (fairly important)
   - Price (total monthly budget a constraint for poorer families, so they consume safe water only sporadically)
   - Reliability (if people pay up front for a lifetime service, they are wary from past experience of unreliable service)
4. ***Price*: place the necessary retail price of Safe Water among household budgets and willingness to pay**
   - People are willing to pay a substantial up front one-time lifelong membership price
   - People are willing to pay a price that can ensure financial viability of the Safe Water Station
   - Monthly budgets of even poor families can cover the cost of 10 liters of Safe Water every day for one month
5. ***Quantity*: estimate how much Safe Water a household might purchase**
   - Most households consume 10 to 15 liters per day for drinking and cooking purposes
6. ***Influencers*: identify key opinion leaders and who they influence**
   - Older men in the village
   - Husbands
   - Local government officials
   - Specific men who are considered knowledgeable and trusted by villagers as their key advisors (e.g. auto distributors)
   - Doctors
7. ***Locations*: where people gather who make decisions on household purchases**
   - Grocery shops (most frequented) which may be distribution locations
   - Temples, churches
   - Houses of the local leader and key advisors

safe water network

Hurdles

Awareness
- Lack of health education
- Disinformation by health workers
- Misperceptions

Ability to Pay
- Price point of water
- Initial investment in containers
- Seasonal Cash Availability

Convenience
- Distance to distribution point
- Necessary infrastructure

Attitudes
- Caste separation
- Resistance to change
- Willingness to pay for water

Seasonal / Intermittent Use

Content

Health and Water Quality
- Linkage between water and health
- Health implications of alternative water sources
- Healthier children
- Electrolyser demonstration
- Current pollutants vs. ancestral

Aspirations
- Reduced health expenses
- Productivity gains
- Better lifestyle in present
- Better future for children
- Higher status for household and community
- Ownership of Safe Water Station
- Awareness of urban lifestyles

Behaviors
- Expand water use to cooking and carrying to the fields
- Handwashing
- Containers for easy transport
- Shared responsibility for men and women

Other Drivers
- Pricing and promotions
- More distribution points

Channels

Safe Water Stations
- Physical site
- Site operator
- Branding
- Village walks
- Sell sheets
- Initial Community mobilization
- Launch event

Influencers
- Local government
- Community leaders
- Health workers
- Schools
- Peer advocacy
- Businesses

Media
- Radio
- TV
- Posters
- Village walks
- Pamphlets
- Newspapers
- Folk music and theater

Audience

Households
- Women (mothers)
- Men
- Boys
- Girls

Advocates
- Community
  - Local government
  - Other leaders
- Health
  - Doctors
  - Registered medical practitioners
  - Clinics
  - Other health workers
- Educational
  - Schools
  - Teachers
- Businesses
  - Restaurants
  - Offices
- Safe Water Station
  - Operators
  - Volunteers

TOOL 24

COMMUNICATING FUNDAMENTALS OF WATER AND HEALTH

PURPOSE

Establishing uniform understanding of the linkages between water and health remains a global challenge. Across the globe the basic connections between contaminated water and disease and early death or between safe water and health are not part of everyday knowledge. This Tool contains 4 visual communication pieces that can be used to educate – clearly and simply – the fundamental connections between water and health. This knowledge is a pre-requisite to convincing people that hygiene behavior change and the purchase of Safe Water are worth the investment of time, effort, and money.

AUDIENCE

This Tool is for use by the Safe Water Station Partners or by the Station Operator to communicate the fundamental connections between water and health to potential or actual customers.

PRE-REQUISITES

The material presented in this Tool is basic, but it is also technical. Before using the material, the communicator of the information needs to make sure that he / she fully understands the concepts and terminology presented. In addition, the communicator must be familiar with the ways in which use of the Safe Water from the Safe Water Station addresses each health risk or need.

MATERIALS NEEDED

The materials in the Tool are intended to be stand-alone communication materials. The Safe Water Station Partners only need to determine the venues in which the use of each is most appropriate as part of the behavior change and demand generation programs they are implementing.

MATERIALS CONTAINED IN THIS TOOL

This Tool presents the key threats to health from contaminated water. The first material illustrates the importance of water to the functions of the human body. It makes the clear, factual statement that the human body is 72% water. Moving clockwise around the right side of the graphic of the human body, the bodily functions that are made possible by water are indicated: regulating body temperature, moisturizing the air we breathe, removing toxins from the body, aiding metabolism and therefore the healthy digestion of food, and protecting internal organs that sustain a healthy life. Continuing clockwise around the left side of the graphic, several core facts regarding the role of water in muscle, bone, blood, and the brain are presented.

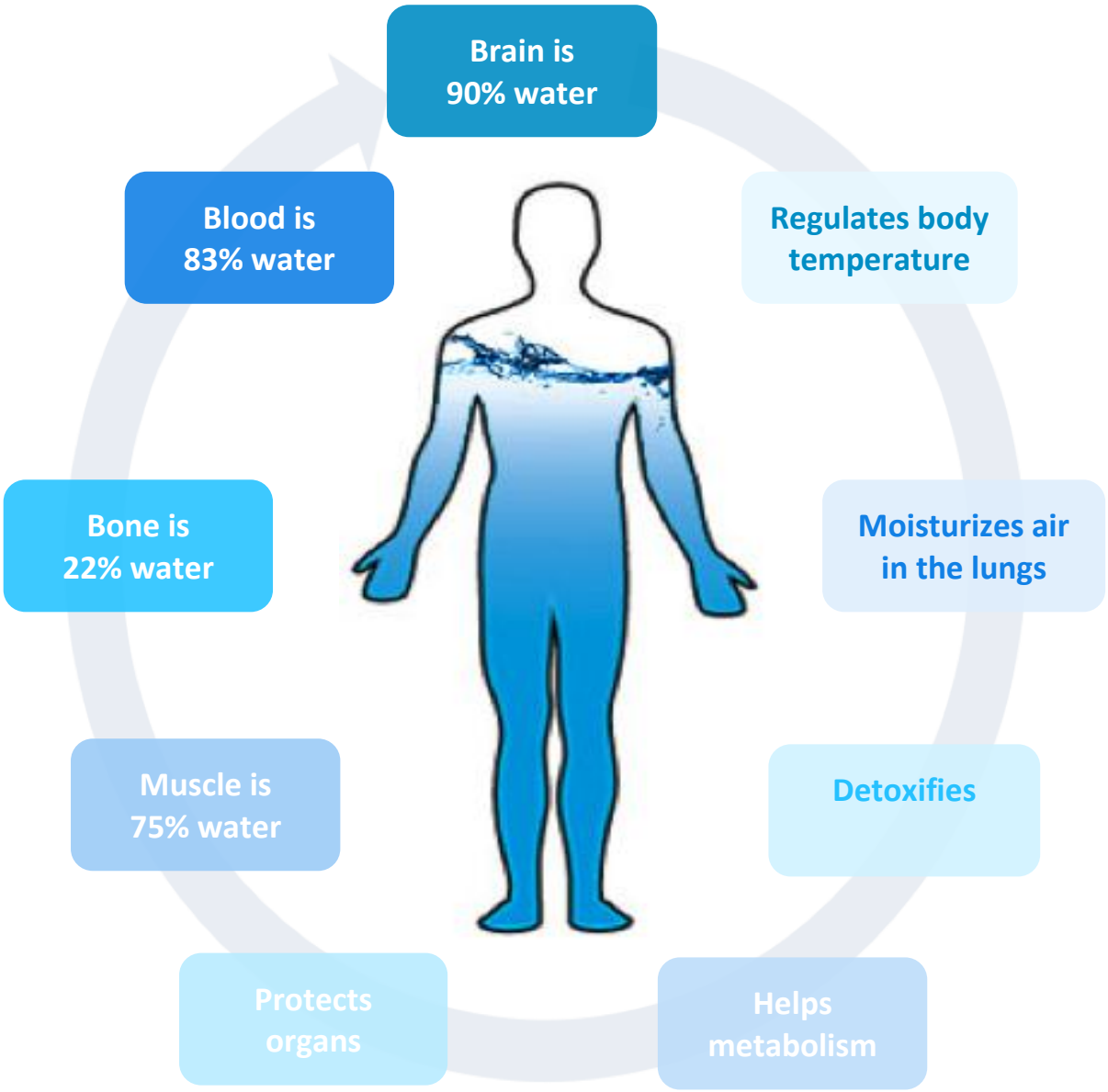
The second material presents the wide variety of contaminants that are typically found in natural water supplies and the many diseases that they commonly cause. The third material shows how each contaminant harms the health of the human body. The fourth material illustrates the burdens that drinking contaminated water places on families: costs for fuel, sickness, costs for treatment, loss of opportunity and income, and death.

HOW TO USE THE TOOL

This Tool can be used both as a stand-alone display and as an educational tool. It can be used as part of communication and mobilization activities with local leaders, men's and women's groups, school children, or any other target audience and as part of the daily operations of the Safe Water Station. It can be used anywhere and with any audience that may not appreciate the importance of water to the body and the importance of Safe Water to the health of the body and the prosperity of families.

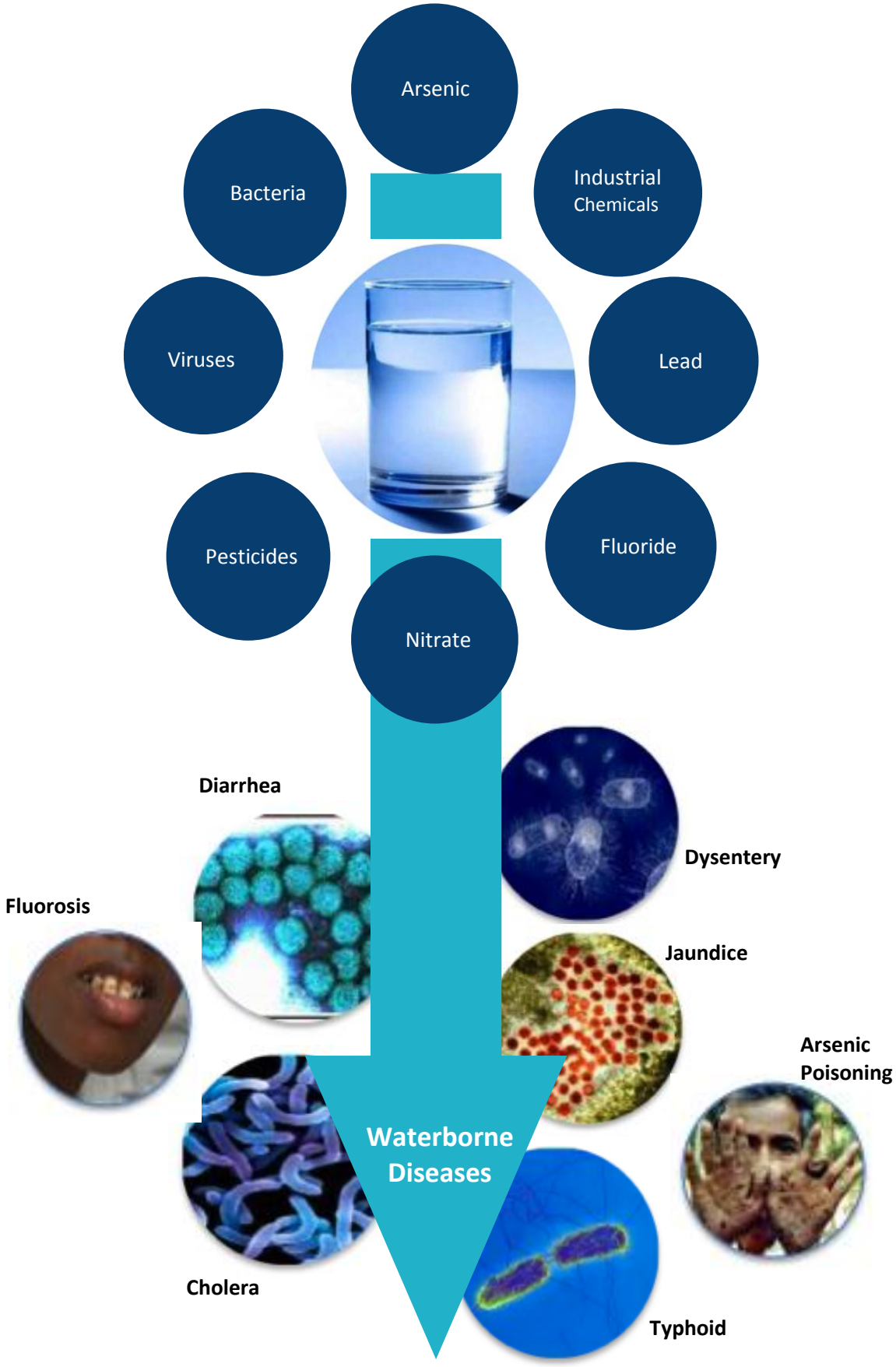
Key Points on Water and Human Health

The Human Body is 72% Water

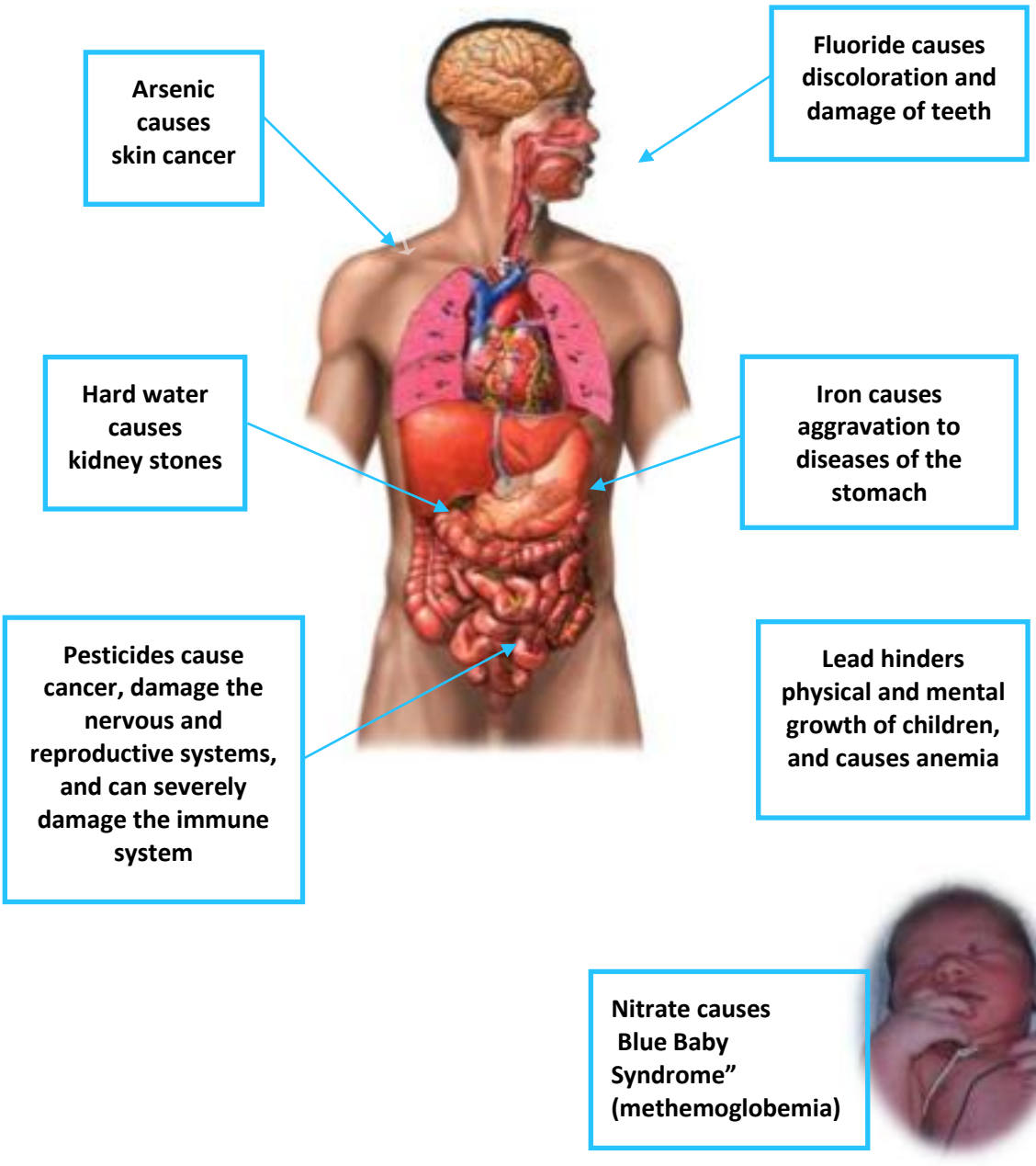


safe water network

Water Contamination and Waterborne Diseases



Harm to Human Health By Common Chemical Contaminants



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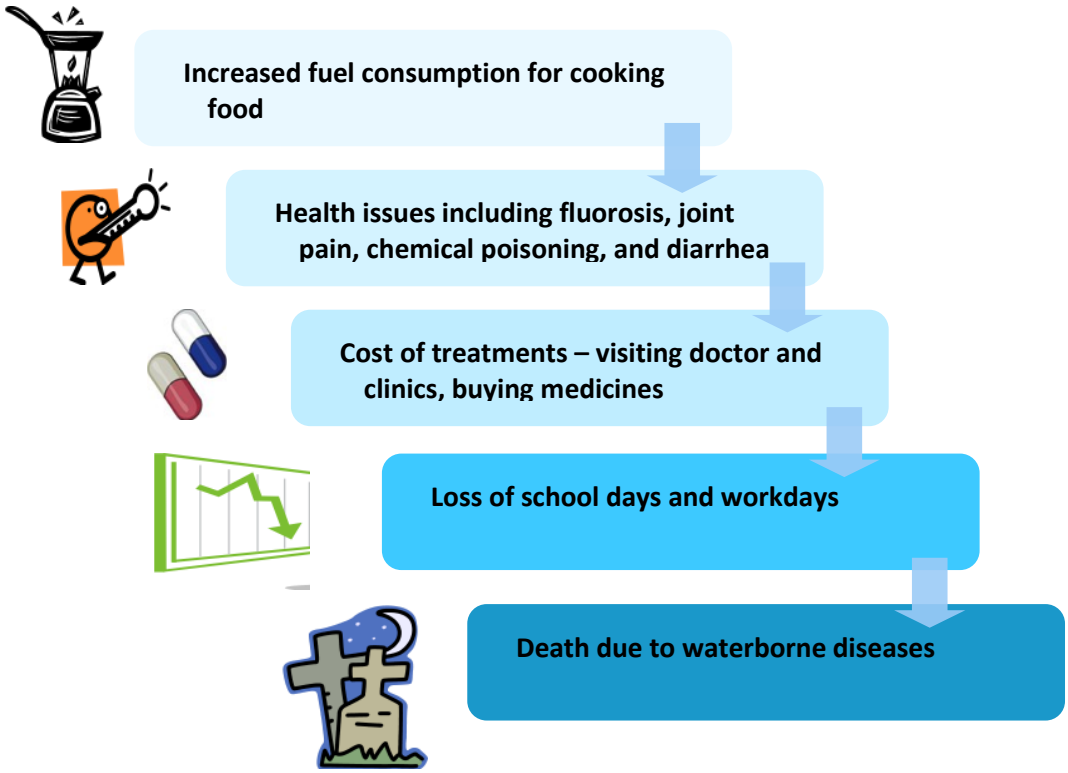
Household Burdens and Costs from Drinking Contaminated Water



TOOL 25

APPROACHES TO HYGIENE PROMOTION

PURPOSE

Hygiene promotion is most effective when it focused on those key hygiene behaviors that are the most readily achievable and contribute the greatest health impact. In the water, sanitation, and hygiene (WASH) profession, the two key behaviors are (1) handwashing with soap and (2) safe management of household drinking water. The purpose of this Tool is to provide material and ideas for Safe Water Partners to use to improve these two key hygiene behaviors in their communities.

AUDIENCE

This Tool is for use by the Safe Water Station Partners or by the Station Operator to communicate with potential or actual customers to improve the two behaviors that are most directly involved in prevention of diarrheal diseases among adults and children.

PRE-REQUISITES

The communicator of the information contained in this Tool needs to make sure that he / she fully understands the concepts and terminology presented. In addition, the communicator must be familiar with the ways in which use of the Safe Water from the Safe Water Station addresses each health risk or need.

Regarding handwashing, the communicator should know the following facts:

1. To improve household hygiene, it is important that all family members – but especially caregivers and those responsible for food preparation – wash their hands after using toilet facilities, after handling a child's feces, and before preparing food
2. Appropriate handwashing involves three elements: (1) handwashing supplies, (2) handwashing technique, and (3) handwashing at critical moments
3. Handwashing supplies include: (1) water (from tap or container), (2) soap, ash, or other detergent, (3) a device that facilitates unassisted handwashing such as a basin, sink, bucket, or tippy tap, and (4) a clean towel or cloth (although this is optional as air drying is an acceptable alternative)
4. Handwashing technique involves the following: (1) using water, (2) using soap, ash, or other detergent, (3) washing both hands, (4) rubbing hand together at least three times, and (5) drying hands hygienically
5. Handwashing at critical moments include (1) after defecation, (2) after handling child's feces or cleaning a child's bottom, (3) before preparing food, (4) before feeding a child, and (5) before eating
6. Handwashing with soap has been shown to reduce diarrheal diseases by 35%

Regarding Safe Drinking Water Management, the communicator should know the following:

1. Even if a household has easy access to Safe Water, the family – especially children – could be at risk if the water is not properly stored and the storage container is not properly maintained
2. Safe Drinking Water Management includes
    a. Using a safe water source that is convenient (reachable in 30 minutes or less in rural areas and 5 minutes or less in urban areas) and accessible daily
    b. Using covered and narrow-neck storage containers
    c. Limiting access of children to drinking water by raising water containers above ground

d. Treating drinking water to remove pathogens
e. Keeping the container clean

MATERIALS NEEDED

The materials in the Tool are intended to stimulate the creativity of the user. The Tool presents numerous options for engaging children, teachers, and health care professionals in a community in learning and communicating the key hygiene behaviors presented above. Should Safe Water Partners decide to follow any of the ideas presented, then they will likely require basic educational materials such as paper, posters, and materials for demonstrations.

MATERIALS CONTAINED IN THIS TOOL

This Tool presents both materials for use in communication and a series of ideas that the Safe Water Network has applied in its hygiene promotion efforts with children, teachers, and health care professionals. In addition, this Tool contains material that describes the central roles that the Safe Water Station Operator and Station Supervisor need to play in promoting the key hygiene behaviors.

This first material is a simple poster that graphically illustrates the key times for handwashing. The second material is another poster that illustrates the steps that a household should take to safely manage their drinking water supply. The third material in this Tool presents key ideas for the Station Supervisor to apply in his / her daily interaction with customers to promote their full adoption of the key hygiene behaviors. The remainder of the Tool presents and describes a range of activities that can be undertaken to engage children, teachers, and health care professionals in promoting the key hygiene behaviors.

HOW TO USE THE TOOL

This Tool can be used both as a stand-alone display and as an educational tool. It can be used as part of communication and mobilization activities and as part of the daily operations of the Safe Water Station. The posters can be used anywhere and with any audience that may not appreciate the importance of handwashing and / or safe water management.

The first poster, “When Do We Have To Wash Our Hands”, can be used in public forums, small group meetings, or at the Safe Water Station to remind customers and community members of the key times and benefits of handwashing. The second poster on “Storage Instructions” shows how the Safe Water Container developed and promoted by the Safe Water Network in India is properly used. It emphasizes the qualities of the Container – sturdiness, narrow neck, and tight seal – that serve to keep the Safe Water from the Station safe to drink through collection, storage, and enjoyment.

The next graphic emphasizes the role of the Station Supervisor in promoting the key hygiene behaviors with customers. It should be noted that the Station Supervisor is not only a technician, salesman, and business operator. He / she is also a communicator and educator who has direct contact every day with the primary initial audience for hygiene behavior change: the customers who have decided to commit resources to the purchase of Safe Water with the expectation of health benefits for his / her family.

The following three parts of the Tool are intended to stimulate the Safe Water Partners in ways to work with children and those most influential to them – teachers and health care professionals – to work together to improve the hygiene of children. The children are then highly likely to influence their family members to also adopt the key hygiene behaviors.

Hygiene Promotion of Key Times for Handwashing

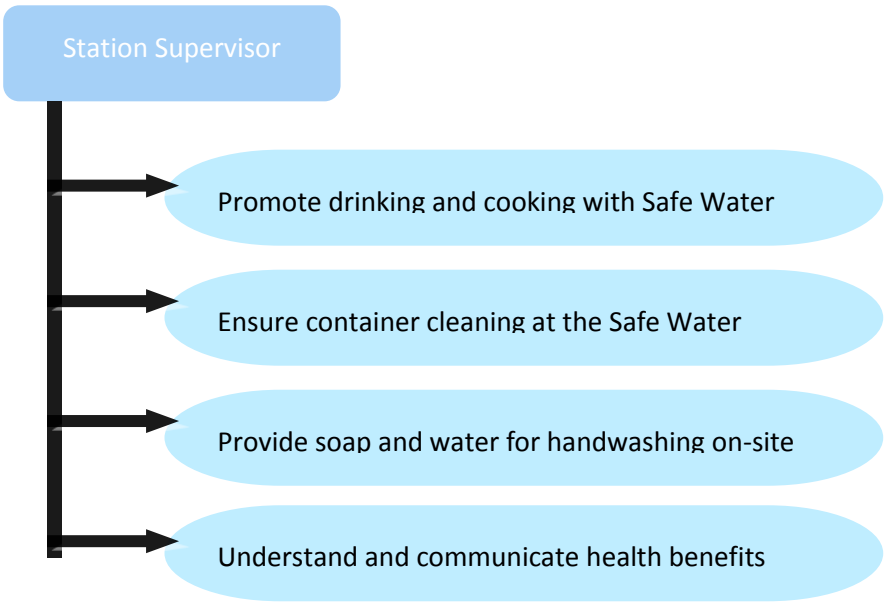
An informational poster

Hygiene Promotion of Safe Water Storage

An informational poster

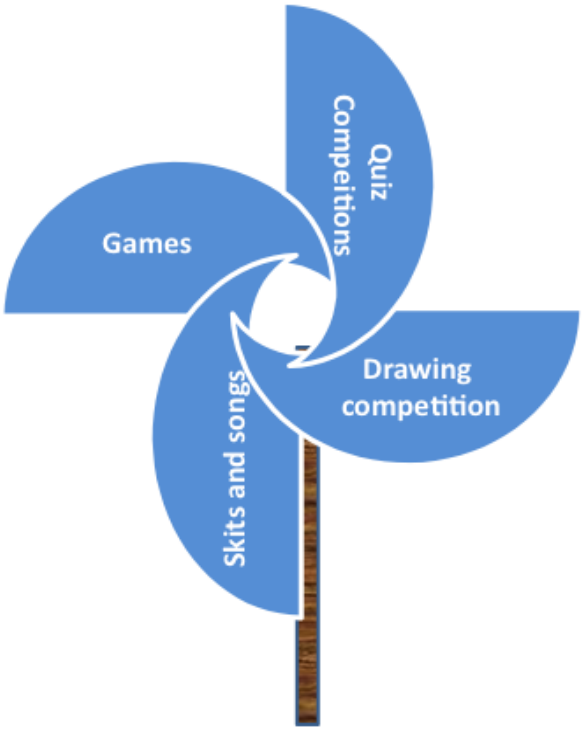
Role of the Station Supervisor in Hygiene Promotion

The Station Supervisor has 4 unique opportunities to promote the two key hygiene behaviors. He / she has daily interaction with customers, and a well-designed Safe Water Station offers opportunities for handwashing, purchase of Safe Water Storage Containers, and cleaning of Containers owned by families. The Station Supervisor can be the most important person in supporting hygiene behavior change in the community. The graphic below illustrates the ways in which the Station Supervisor can maximize his / her role in improving the health of the community.



Involving Children in Hygiene Promotion

In a community, children may be the most important "change agents" – messengers and adopters – of the key hygiene behaviors in a community. Not only do they suffer the most from waterborne illnesses and hence, are a key target group. They are also capable of influencing their family's behavior by learning new and important habits and communicating them in their households. Children are typically best motivated by various entertaining and engaging activities that teach about the benefits of Safe Water and good hygiene. They care that the waterborne illnesses from consuming unsafe water prevent them from going to school and playing with their friends.



Ideas for Involvement

- Campaign throughout the village
- Free Safe Water at the school
- Showing videos and short films
- Awarding prizes for knowledge or maintaining clean habits
- Practicing proper method and timing of handwashing

Ideas for Activities with Children

Visual Demonstrations – showing videos and short movies about drinking Safe Water and the effects of drinking unsafe water. Posters and photographs can also be shown of how drinking impure can affect the health of individuals.

Awareness lectures in schools – In coordination with classes, curricula, or clubs instruction can be provided on clean and healthy hygiene behaviors, prevailing waterborne diseases, and communication of messages such as the following logical series of ideas:

- You drink unsafe water
- You have diarrhea and fever
- You have to miss school

- You cannot play with your friends
- You need to drink Safe Water and cook with Safe Water to be healthy
- Never drink any other water even when you are in school or outside
- Tell your family and friends about Safe Water and be healthy
- Wash your hands with soap before and after meals, after defecating, and before cooking

Free Safe Water in the School – These ease and good taste of Safe Water can be promoted if children are given the opportunity to drink free Safe Water at school. This could either be done as a onetime demonstration or it could be part of the regular marketing strategy and contribution to the community by the Operator of the Safe Water Station.

Games for Family Outreach - A "Snakes and Ladders" game is frequently developed to promote key hygiene behaviors. In one example, it was given to 10 different students weekly who understand and can play the game. A teacher encouraged them to play the educational game with different family members highlighting the importance of Safe Water. In this way, students can be engaged in a fun activity that encourages their family to purchase Safe Water and improve their health

Poster Making - Organize a regular prize competition that would include drawings from children about Safe Water. Children can be asked to make posters on drinking Safe Water and what happens if they drink impure water. They could be displayed at gathering points in the village such as the center, shops, schools, and the Safe Water Station. Prizes should be given to two winners at a small ceremony at the Safe Water Station and could include "gift certificates" for a volume of Safe Water.


Rally Around the Village - A procession could be led by school children on important days (e.g. World Water Day, Global Handwashing Day) or on important days to the Safe Water Station (e.g. launch, anniversaries, selling of 1,000 liters of Safe Water, 100 days of constant operation). This would engage students and the community to learn about key hygiene behaviors and encourage them to become customers of the Safe Water Station.

Involving Teachers in Hygiene Promotion

All teachers should be provided with an awareness session by the Safe Water Partners. Topics to cover include the benefits of Safe Water, the Safe Water Station, and the key hygiene behaviors. They should then use this information to help children understand the key hygiene behaviors by engaging them in various activities such as games, quizzes, essays, etc. The Safe Water Station Partners should provide support and necessary materials to carry out each activity. The teachers can raise points like the ones below to help educate the children:

- You drink unsafe water
- You get diarrhea and fever
- You have to miss school
- You cannot play with your friends
- Therefore, you need to drink safe water and cook with Safe Water to be healthy
- Safe Water is now available in your village
- Tell your family and friends about Safe Water and be healthy

Ideas for Activities with Teachers

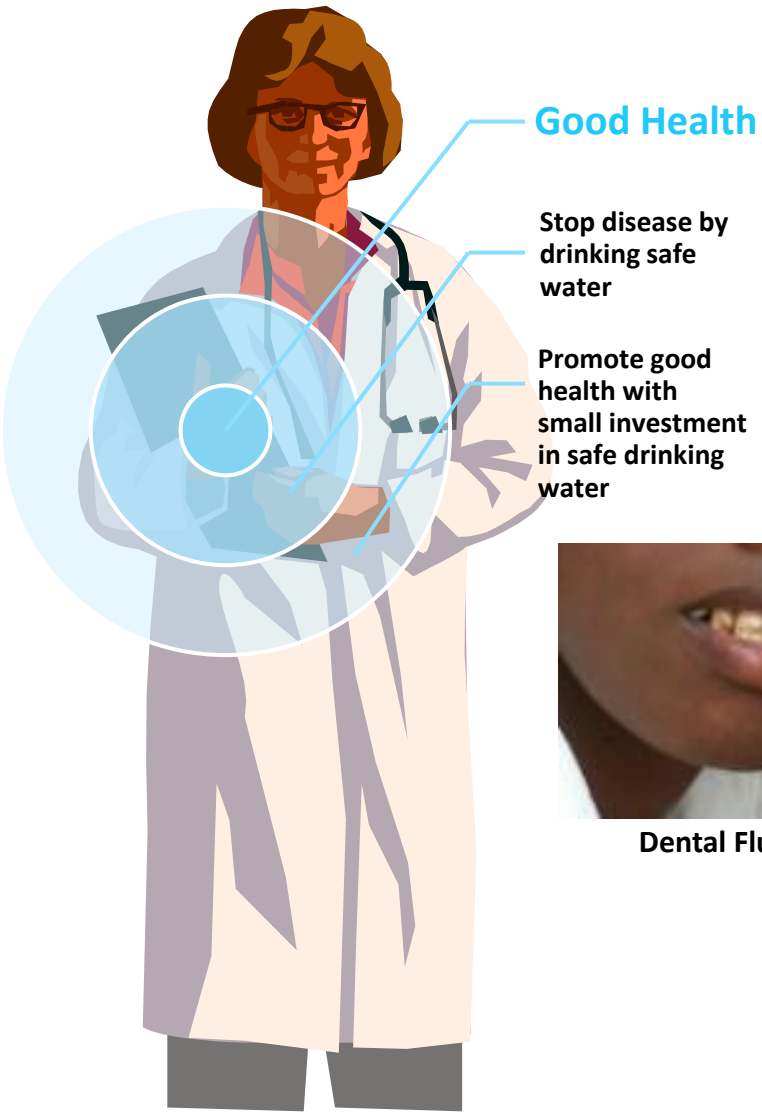
Orientation Session – This activity would be conducted to educate them about Safe Water and its benefits, the availability and operation of the Safe Water Station, and the key hygiene behaviors. Hopefully, this session would open opportunities to engage them in various education and promotional activities with children at school.

Curriculum Inclusion – The Safe Water Partners would work with teachers and school directors to include messages about the key hygiene behaviors and Safe Water in the appropriate classroom curriculum. Materials from the Safe Water Station Partners could be used by the teacher and, if desired, as part of a contest for a prize.

Essay and Quiz Contests - Essay and / or quiz contests could be held regularly and the student contributing the best essay or quiz results could be given a prize related to the Safe Water Station. In this way, students would be encouraged to read, write, improve their hygiene, and inform their families about the benefits of Safe Water.

Involving Health Care Professionals in Hygiene Promotion

Safe Water Partners should work closely with doctors, caregivers, clinic officials, and community health workers to promote the key hygiene behaviors as ways to prevent the harm and costs that come from unnecessary diseases. They should help communities have "Good Health" and "Stop" easily preventable diseases.



Children Having Diarrhea

Dental Fluorosis

Skeletal Fluorosis

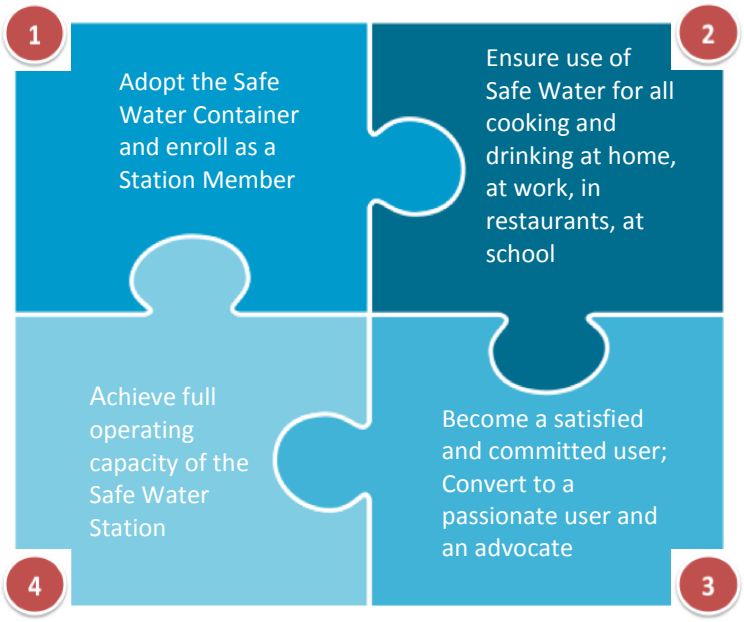
Arsenic Poisoning

Ideas for Activities with Health Care Professionals

Safe Water for Health Clinics – All health facilities should be equipped to provide Safe Water for the treatment and care of their patients. Too many do not have the resources to do this. The Safe Water Station Partners may wish to provide complementary Safe Water complementary to health centers in exchange for their communicating messages on the key hygiene behaviors and providing clinical data on community diarrhea to the Safe Water Station Partners.

Introduction to the Demand Module

Demand Generation refers to the activities that will ensure that continually increasing amounts of water are purchased daily from the Safe Water Station. It is vital for the long-term sustainability of the Station as illustrated in the graphic below. It begins with the Inauguration of the Safe Water Station (see Tool 18) where community members first enroll as members of the Station and purchase the first Safe Water Containers for transporting and storing their new investment. Demand Generation then results from an unyielding focus on promoting the use of Safe Water – and only Safe Water – for all cooking and drinking wherever they might take place. The objective over time is to establish an expanding network of customers who are satisfied with and committed to the regular use of Safe Water. To expand the customer base, the Station Operator and Safe Water Station Partners must identify the passionate and influential users in the community and gain their support as advocates for the purchase and exclusive use of Safe Water for cooking and drinking. Finally, as the customer base grows, the Station Operator aims to maximize revenue and water distribution by operating the Safe Water Station a full capacity. Then the market opens to another Safe Water Station, and the stages of the linked cycle continue.



Demand Generation is a continual process of identifying and signing up new customers – and maintaining the loyalty of old customers - for the Station in the area immediately around the Station and in surrounding areas. This Module presents a range of Demand Generation activities that emerge from the understanding of the customer base established following Tool 23 and getting more and more villagers signed up to purchase safe drinking water from the Station. Demand Generation activities have only one objective: changing the *purchasing* behavior of community decision-makers to increase the volume of water sold to community members. Specific objectives include:

- Having all villagers use Safe Water for their cooking and drinking needs;
- Increasing uptake of Safe Water by household, public sector, and commercial customers
- Convincing villagers of the security and benefits of investment in a Safe Water Storage Container and encouraging Safe Water collection in branded Containers
- Ensuring the acceptance and uptake of Safe Water Storage Containers purchased from the Safe Water Station

And, because Demand Generation activities are often implemented hand-in-hand with hygiene promotion activities as described in the Consume Module of this Tool Kit, *hygiene* behaviors also change and health is improved. The success of the two activities combined is reflected in (1) steadily increasing sales of Safe Water to an expanding customer base and (2) steady expansion of the adoption of the two key family practices discussed in the Consume Module: (1) proper storage and management of drinking water and (2) proper handwashing at key times.

Fortunately, there are multiple groups within a community who can significantly help generate demand. These groups need to be identified and addressed as part of using the Demand Module. Possible ways to engage them are the center of this Module. The two Tools in the Module are intended to help Safe Water Partners achieve broad based engagement of decision-makers. The first Tool recommends ways in which the Safe Water Station can place a "footprint" in the community as a valued health, business, and educational partner. It focuses on options for branding the Station and / or its products and on the identification and engagement of key influencers to be early joiners of the Safe Water Station and establish its customer base and reputation within the community. The second Tool provides guidance on Demand Generation activities that can be conducted widely across the community or specifically for target audiences of men or women. The Tools and the expected outcome from their use are presented in Figure 1.

Figure 1: The Tools in the Demand Module of the Safe Water Station Local Operating Unit

The Safe Water Station Local Operating Unit

screening > community >

Tool Kit Modules →	
Demand Module Tools:	Outcome
26. Establishing a Safe Water Station "Footprint"	**Safe Water Station Partners determine the appropriate branding scheme for the Safe Water Station and its products and begin promoting each to key influencers with the community**
27. Generating Demand Among New Customers	**Safe Water Station Partners, Operators, and Supervisors develop an action plan that promotes the Safe Water Station to men, women, and the whole community based on an understanding of their aspirations, hopes, priorities, and resources**

TOOL 26

Establishing a Safe Water Station "Footprint"

PURPOSE

The Purpose of this Tool is to establish Safe Water as a valued product and obtain the commitment of influencers to helping the Safe Water Partners build the customer base of the Safe Water Station. The process begins by establishing a "footprint" for the Safe Water Station in the community. Two decisions by Safe Water Partners initiate the process: (1) how they will "brand" Safe Water so that it is recognized and identified with only the Safe Water Station, and (2) who and how they will engage to ensure the support of "key influencers" in the community.

AUDIENCE

This Tool is for use by the Safe Water Station Partners in developing and initiating a strategy of communication and action that firmly establishes the Safe Water Station as a valued provider of priority and needed products.

PRE-REQUISITES

Before using this Tool, the Safe Water Partners need to agree on an approach to establishing a "brand identity" for the Safe Water Station. Two options that have been implemented by the Safe Water Network are branding the Station as a whole or branding the Safe Water that is sold by the Station. Either approach can be successful and requires a basic understanding of marketing techniques and the consumers the Partners want to engage.

Brand identity is the combined effect of visual elements in marketing materials and products. A basic *brand identity kit* consists of a logo, tagline, and business card, and the placement of the logo on Safe Water and / or the Safe Water Station. This basic set of materials can be extended to include paintings, billboards, brochures, posters, flyers, or any other publicly displayed or distributed materials. But, in any case all materials present the logo and establish a uniform and consistent set of communication products to prospective customers.

A successful brand identity is built around the following 8 key characteristics:

- **Uniqueness** in "look and feel" to ensure that the Safe Water and / or the Station's appearance stand out from and cannot be confused with those of competitors providing similar products or services
- **Repetition** helps potential customers - and current customers - to remember and relate to who the Safe Water Partners are and what they do
- **Consistent** use of the logo and tagline by the Safe Water Station Partners, Operator, and Supervisor. They must repeat those elements through all of the materials created to support the Station
- **Memorable** elements help the Safe Water Station to stand out as well. The Safe Water Partners can create brand memorability through consistency, repetition, and uniqueness of graphics and materials
- **Meaningful** graphics make the Safe Water Station's message come to life through consistent use of symbolic graphics, colors, and type choices in all of the Partners' education and communication materials. Meaningful text expresses what the Station is all about and helps to give depth to the brand but only if it is easily understandable by potential customers

- **Clear** graphics and text communicate Station messages in an understandable way. Graphics must be crisp, clean, simple, and meaningful. Text must express a key point and not be unfocused or confusing.
- **Honesty** in the brand identity. If customers engage with the Safe Water Station and then the Operator doesn't live up to the promises made in materials, then customers will be unlikely to become passionate customers who advocate to others to use the Station
- **Professionalism** in all things including the quality of graphics, the way text is written and the way Safe Water Partners talk, dress, and speak. Professionalism in customer service and in the way Partners and Operators treat people is also important.

When the "footprint" is established, customers should be motivated to play an important role in promoting Safe Water throughout the village. The Safe Water Station Partners should seek the support of key community influencers as a first step in operating a Safe Water Station and continue to motivate them to support the Station over the long-term. Possible key opinion leaders include local government, older men and women, school leaders, business women and men, and both formal and informal caregivers at the household. In addition, the contributions of small businesses should not be minimized. The Safe Water Network has seen considerable success when restaurants and other social gathering places adopt Safe Water and promote its use to their customers. After Safe Water Partners identify key influencers, then they should develop a strategy of "influencer marketing".

Influencer marketing focuses on specific key individuals (or types of individual) rather than the target market as a whole. It identifies the individuals that have influence over potential buyers, and orients marketing activities toward these influencers. Influencers may be potential buyers themselves, or they may be third parties. These third parties may be retailers or restaurateurs or may be external influencers such as journalists, academics, caregivers, and so on.

Influencer marketing is comprised of four main activities:

- Identifying influencers, and ranking them in order of importance
- Marketing *to* influencers, to increase their awareness of the Safe Water Station
- Marketing *through* influencers by using them to increase awareness of the Station among potential consumers
- Marketing *with* influencers and turning them into advocates of the Safe Water Station.

The first step in Influencer Marketing is to identify influencers. Attributes of influencers include:

20. *Activist*: influencers get involved with their communities, political movements, and charities.
21. *Connected*: influencers have large social networks
22. *Respected*: influencers are looked up to and are trusted by others
23. *Thoughtful:* influencers have multiple and diverse interests
24. *Trendsetting:* influencers tend to be leaders in adopting new products and / or ideas

With a branding strategy in place and key influencers identified, the Safe Water Partners are ready to launch their demand generation program.

MATERIALS NEEDED

To initiate a demand generation program, the Safe Water Partners and the Operator only need a brand identity and a small set of materials that clearly describe the objectives and operation of the Safe Water Station.

MATERIALS CONTAINED IN THIS TOOL

This Tool contains two items. The first are examples of the graphics that the Safe Water Network has used in its programs to brand (1) the Safe Water product and (2) the Safe Water Station itself. The second are examples of activities that the Safe Water Network has conducted to engage key influencers to understand and support the operation of the Safe Water Station.

HOW TO USE THE TOOL

The first part of the Tool contains examples of core elements of a branded campaign. They are presented as examples to stimulate thought and local planning by the Safe Water Station Partners. In India, the Safe Water Network has identified two graphics that have become integral to the organization's brand identify. The first shows two "footprints" and the text "near my home". During investigation of customer insights, this team identified that is was of primary important to prospective customers that the Safe Water Station be close and convenient to their homes. If this were not the case, then most people would continue to rely on their existing sources of drinking water. The second part of their brand identity is two drops of water accompanied by the tagline "drops of health for me".

This tagline was developed to achieve two objectives. During customer research, the team identified that the contribution of the Safe Water to health – particularly the health of children – was a primary driver for families to purchase Safe Water. The second part of the tagline focuses on "me". Customer research showed a significant distrust of commercial schemes in general. But, because the Safe Water Station is locally owned and operated – either by a Safe Water Station Committee or by a local entrepreneur who is known to villagers – it was important to re-emphasize that the Safe Water Station is not driven by or responsible to people or organizations outside the community. In the case of the India program, proximity, health benefits, and local ownership where the key points embedded in their brand identify. In other locations, it has been found to be more appropriate to simply brand the "Safe Water Station" tagline and use this repeatedly and consistently at the facility, in meetings, and in promotional activities and materials.

The second part of the Tool illustrates how the Station facility was transformed by the local Safe Water Station Partners. They took over an abandoned, partially constructed building, and they turned it into a living logo and advertisement for the Station. This team created an inviting place intended to be a hub of community gathering and activity – all under the very visible colors and tagline of the Safe Water Station.

The third part of the Tool presents ideas on creative ways to engage key influencers in becoming supportive communicators of the "5 points":

1. You and the people in this community drink unsafe water
2. The water you drink caused diarrhea, weak bones, joint pains, and teeth stains
3. Community members lose money by missing work and paying doctor fees. Your children have to miss school each time they are sick
4. There is a Safe Water option now available in this community. Safe Water is available for about US$0.07 (or local currency equivalent) for 20 liters at the Safe Water Station near your house
5. Buying Safe Water brings health to you and your family

Key influencers are not necessarily expected to be new customers of the Safe Water Station, although it is helpful if they decide to become customers. Their support is, however, very important. It is obtained by clearly presenting to them the advantages and cost-effectiveness of the purchase of Safe Water to their friends and the entire community. Through these discussions, the key influencers within the community should be motivated to play an important role in promoting Safe Water and recommending good hygiene behaviors through the community. The Safe Water Station Partners should seek their support as a first step before establishing broader promotion of the Station directly with community members.

safe water network

Elements of a Branded Campaign

Raising Awareness of Key Influencers

Activity: Demonstrating local government endorsement of the Safe Water Station through monthly WASH (water, sanitation, and hygiene) days to encourage WASH activities and improve health such as Handwashing and use of Safe Water Storage Containers

Purpose: To raise the awareness of key influencers about Safe Water through hygiene education

Time: Monthly as planned by local leaders

Materials Needed: Interesting theme for each month

How to Conduct the Activity:

1. The local leaders should be engaged from the beginning of the project. Their support is essential for the success of the series of activities
2. The Safe Water Station Partners should ensure the local government's participation in the village-wide meeting
3. The local government should be requested to promote Safe Water and hygiene at its various meetings. The Safe Water Station Partners should provide any materials required for them to carry this message.
4. A local leader should announce Monthly WASH Days to encourage WASH activities and improve hygiene through promotion of handwashing and the use of Safe Water Storage Containers

Activity: Meetings with key influencers in the community such as government leaders, the Safe Water Committee members, teachers, doctors, leaders of women's groups, and community health workers at the Safe Water Station.

Purpose: To inform the key influencers about Safe Water, the operation of the Safe Water Station, its benefits, and its cost effectiveness through materials, instruction, and hygiene education. Also, build awareness about the Safe Water Station and engage them in its promotion through various activities across the community.

Time: Two hours; to be conducted in advance of the design of any demand generation campaigns

Participants: Facilitated by the Safe Water Station Partners and leaders of the local government

Materials Needed: Posters, brochures, and informational material

How to Conduct the Activity:

1. The Safe Water Station Partners should ensure that each key influencer is informed of the meeting in advance. It would help to speak to each individual separately about the Safe Water Station before the meeting
2. The Station Operator should lead the meeting
3. The Station Operator should introduce himself / herself and all of the Safe Water Station Partners to the entire group
4. Representatives of the Safe Water Station Partners should cover, at a minimum, the "5 Points" during the meeting
5. Posters and brochures presented throughout this Tool Kit can be used to explain the benefits of Safe Water and the Safe Water Storage Container
6. Explain that the Safe Water Station is branded for identification and is part of the community. Emphasize that the Safe Water Station is owned and managed by members of

the community, and if possible introduce each managing member to the attendees at the meeting.

7. Emphasize the rigor of operation, maintenance, monitoring, and financial management that occurs at the Safe Water Station
8. Explain the role of all relevant community, national, and international partners working to support the Safe Water Station
9. Use the Safe Water Storage Container wash and storage instruction to explain the benefits of using the Container to store water and wash the Container
10. Explain the purchase, durability, convenience, and health benefits of the Container using one of the posters available in the Tool Kit
11. Emphasize that Safe Water should be drunk all the time to ensure good health and use Safe Water Storage Containers. They should take it in a clean container to the fields. It is not curative but preventive.
12. Answer any questions calmly and make sure to resolve all queries.

TOOL 27

Generating Demand Among New Customers

PURPOSE

Demand generation requires convincing decision-makers that it is in their interest to prioritize the investment of meager funds in the purchase and use of Safe Water. The purpose of this Tool is to provide ideas and guidance for Safe Water Station Partners, Operators, and Supervisors to use to develop a plan of action to promote the Safe Water Station to men, women, and the whole community based on an understanding of their aspiration, hopes, priorities, and resources.

AUDIENCE

This Tool is for use by the Safe Water Station Partners and the Operator as a guide to the types of activities that can be carried out with various audiences that pique their interest, account for their priorities, and result in growth of the customer base for the Safe Water Station.

PRE-REQUISITES

Before this Tool can be used, the Safe Water Partners need to have three things in place: (1) a broad range of educational and informational materials on the operation and benefits of the Safe Water Station, (2) ownership of the Water Electrolyser, and (3) completed training of Station Partners and the Operator in using the educational and informational materials.

MATERIALS NEEDED

To use this Tool is will be necessary to have available a large number of educational and informational materials available for use and distribution in meetings, trainings, and at the Safe Water Station. In addition, the Partners and Operators should practice using the Water Electrolyser so that its use in demonstration to the public is clear and results are consistent and informative.

MATERIALS CONTAINED IN THIS TOOL

The Tool is organized into 3 broad sets of information. The first set presents ideas for generating community wide demand for Safe Water. Operator and Station Supervisor training needs are elaborated and suggested activities are presented for reaching villagers, community health workers, and entrepreneurs through visual demonstrations and repeated emphasis of the “5 Points”:

1. You and the people in this community drink unsafe water
2. The water you drink caused diarrhea, weak bones, joint pains, and teeth stains
3. Community members lose money by missing work and paying doctor fees. Your children have to miss school each time they are sick
4. There is a Safe Water option now available in this community. Safe Water is available for about US$0.07 (or local currency equivalent) for 20 liters at the Safe Water Station near your house
5. Buying Safe Water brings health to you and your family.

Information is also presented to help prepare for public sessions on Safe Water Storage Containers, conducting public performances and play, celebrating special days, and establishing the Safe Water Station as a community convening spot. Two specific materials are elaborated upon: (1) maximizing customers’ cost-effectiveness of their water investment by limiting its use to only drinking and cooking and (2) demonstrating the purity of safe water through electrolysis.

Lastly, suggestions are presented regarding approaches to create demand among audiences of women and of men. They gather and process information in different ways, so specific activities related to the typical drivers of each gender to purchase Safe are proposed along with a rapid analysis of the typical interests of men and women, and how demand generation programs can be targeted to those interests.

HOW TO USE THE TOOL

This Tool is a guide not a prescription. It offers a range of possible activities that Safe Water Station Partners and Operators can undertake as part of a demand generation targeted around the "5 Points" listed above. However, some parts of the Tool are more important and prescriptive than others. In the part on Generating Demand Across the Community, there is a section of suggested training to provide to Station Operators and Supervisors so that they can become valued participants in demand generation efforts. This part of the Tool should not be overlooked. Operators should develop innovative activities that make the Safe Water Station a destination for community members. Suggested activities include regularly conducting electrolysis demonstrations, and running a monthly contest during which all villagers purchasing Safe Water are challenged to answer a series of questions correctly. Those who answer them all correctly may be awarded with a small prize.

Most of the rest of the information in this section will be site specific, so Safe Water Station Partners should use this part of the Tool to stimulate their thinking about possible local allies in demand generation and how they might be beneficially engaged. The section on purity and electrolysis should also be carefully reviewed. The Water Electrolyser referenced in the section is readily available for purchase, and the demonstration around it is highly visual and graphic. But, there is a risk of electrical shock, so the demonstration should be planned very carefully, and the instructions presented should be followed closely.

The Tool ends with a section on Generating Demand Among Women and one on Generating Demand Among Men. Women are often the key target group as they are primarily responsible for water collection in villages. Women can typically be motivated to purchase Safe Water by highlighting how it will help their children lead healthier lives. It should also be highlighted that spending extra towards purchased Safe Water will in return help reduce overall costs for the family incurred towards medical costs. Men, however, make most of the financial decisions in villages and hence their support is also crucial for the success of the Safe Water Station. Men are most often motivated to purchase Safe Water by highlighting the income that they lose due to sick days and paying doctors' fees.

The two sections are meant to provoke thought on how the Safe Water Partners will best account for gender roles and norms in their communities. Audiences of women and men require different approaches, materials, and messages. These two sections are intended to guide Partners and Operators in thinking about how best to approach women and men to achieve the final objective of convincing them that investment in Safe Water is wise for the family, household, and community.

Generating Demand Across the Community

After launch of the Safe Water Station, demand generation is focused on achieving 80% penetration of the community. There are two groups who have a vested interest in expanding the customer base to its maximum size: the Safe Water Station Partners and the Safe Water Station Operator and Supervisor. Each has a financial interest in the operation of the Station. They must lead organizing of coordinated communication for demand generation across the community – every day that the Station is in operation.

The following are examples of activities that the Partners, Operator, and Supervisor can undertake in coordination with one another to maximize the customer base of the Safe Water Station.

Train Operators and Supervisors in Communication Skills

Activity: Operators and Station Supervisors are given the skills and confidence to be regular communicators of the "5 Points"

Purpose: The Safe Water Station Partners are highly likely to have experience in training and communication skills. This activity is for them to provide training to the Operator and Station Supervisor to make sure that they have a core set of communication skills to carry out the following as part of their everyday operation of the Safe Water Station:

- The Operator and Station Supervisor should clearly understand that their job is important and a direct contribution to health of villagers
- The Operator and Station Supervisor should be trained to appreciate each of the "Consumer Insights" gleaned from use of Tool 23 of the Consume Module, and they should develop a plan for how they incorporate these in the day to day operation of the Safe Water Station
- The Operator and Station Supervisor should be trained to use each health related communication material in Tool 24 of the Consume Module, and they should identify specific ways in which they will use each material during daily operation of the Station to explain the health benefits of Safe Water and use of Safe Water Storage Containers
- As introduced in Tool 25 of the Consume Module, the Station Supervisor should be trained to (1) promote drinking and cooking with Safe Water, (2) ensure Container cleaning at the Safe Water Station, (3) provide soap and water for handwashing on-site at the Station, and (4) understand and communicate health benefits
- The Operator and the Station Supervisor should understand how to promote cost-effective use of water purchased at the Safe Water Station using the "Do's and Don'ts" poster presented in this Tool
- If possible, the Operator and the Station Supervisor should be equipped with and trained to use the "Water Electrolyser" described in this Tool to demonstrate the high quality of Safe Water in comparison to current alternatives
- Very importantly, the Operator and the Station Supervisor should clearly understand the role of all relevant partners working to develop and support the operation of the Safe Water Station and be able to communicate these roles to community members
- The Operator and Station Supervisor should be equipped to promote the purchase of Safe Water Containers by explaining to the community the durability, convenience, and health benefits of using the Safe Water Storage Container every day and exclusively for storing and pouring Safe Water. For this, they should develop ideas and a plan for using the information on the Container presented in Tool 20 of the Distribute Module
- The Station Operator should be trained to remind each customer while filling their Container of three key messages:

- Need to get Safe Water for family's drinking and cooking needs daily to avoid ill effects
- Need to ensure that the water in the Container is not touched to avoid contamination
- Need to ensure washing of hands with soap for the entire family after key activities

Meeting with Villagers to Educate about the Various Waterborne Diseases

Activity: Villagers are educated regarding the various diseases caused by impure water and simple ways to prevent each disease

Purpose: Health improvement for the family and especially children can be a critical driver for a family to choose to purchase Safe Water and a Safe Water Container. The Safe Water Station Partners and / or the Station Operator should use the hygiene promotion in Tools 24 and 25 of the Consume Module to explain the benefits of purchase and use of Safe Water for drinking and cooking.

Meeting the community to understand their experiences of consuming safe drinking water

Mobilizing and Rewarding Community Health Workers

Activity: Providing motivation, information, and rewards to Community Health Workers to promote the Safe Water Station and generate new customers

Purpose: Community Health Workers are generally trained to communicate with mothers and women about personal and family health matters. Part of their communication typically centers on prevention and treatment of diarrhea and other diseases in young children. They should be provided with knowledge and information to communicate the benefits and costs of Safe Water to convince families that they should purchase and use Safe Water as part of their effort to eliminate the costs of debilitating diarrhea and other diseases.

Demonstrations for Entrepreneurs

Activity: Stimulating interest among business-oriented entrepreneurs to expand the number of Safe Water Stations

Purpose: Generating demand for Safe Water can involve the engagement of entrepreneurs as distributors of Safe Water or as operators of additional Safe Water Stations. This activity should focus on the prestige and income-generating aspects of Safe Water Stations to create opportunities for local investment in establishing new Safe Water Stations. It should include a description of both the distribution and operation opportunities for entrepreneurial delivery of Safe Water.

Advantages of Drinking Safe and Purified Water

Activity: A visual marketing program can be conducted throughout the community to illustrate the benefits of drinking pure water, its affordable cost, and its local availability

Purpose: Each Module of this Tool Kit contains material that can easily be used as part of a marketing program across the community. Building on insights gained into the ways in which community consumers receive trusted information using Tool 23, the visual materials in the Tool Kit can be reproduced and posted in key locations in the community, in businesses, and in locations where people gather – health centers, markets, or local government offices.

Demonstrating the Purity of Safe Water through Electrolysis

Activity: Using a technical and highly visual presentation to demonstrate to villagers why Safe Water is to be preferred over tap water

Purpose: Typically, people who regularly drink contaminated water do not realize that it is contaminated and harmful. The electrolysis demonstration described in this Tool shows very clearly how dirty current drinking water sources are and how clear and clean Safe Water is.

Electrolyser Test being conducted at every village to demonstrate water

Marketing the Purchase and Healthy Use of Safe Water Storage Containers

Activity: The quality, durability, purchase price, and health benefits of Safe Water Storage Containers is marketed in multiple public venues

Purpose: The sale of Safe Water Storage Containers is one of the sources of operating income for the Safe Water Station. The use of Safe Water Containers by families to store water purchased at the Safe Water Station is a proven contributor to health improvement. The purchase and use of Safe Water Storage Containers contributes to the financial viability of the Safe Water Station and can be promoted in community meetings, other public forums, with individuals, and through the placement of marketing materials in public locations across the community.

Plays and Public Performances to Tell the Importance of Safe Water

Activity: Plays and / or other performances are arranged to promote the purchase and use of Safe Water and communicate through personal stories and entertaining productions the changes that result from family membership in the Safe Water Station

Purpose: Promoting the purchase and use of Safe Drinking Water need not always focus on technical issues such as health, price, or purity. It can just as easily and successfully focus on aspirations and result from demonstrations of the successes of others. Plays and public performances are entertaining ways to market the simplicity and benefits of purchasing and using Safe Water for drinking and cooking.

Celebrating Special Days

Activity: Celebrate "Safe Water Day" anniversary of operation, World Water Day, Global Handwashing Day or other local water- and health-related holidays each year

Purpose: Each Safe Water Station is part of a global effort to eliminate childhood diarrhea through the provision of safe water, sanitation, and hygiene promotion. Several global organizations – as well as local ones – organize broad-scale efforts on special days. Participation in celebrating these days promotes Safe Water purchase and use in the community while also providing an opportunity for the Safe Water Station Partners to communicate their programs and success to a national and / or global audience. This would stimulate water purchase and perhaps mobilize global funding to expand the operations of the Safe Water Station Partners.

Small, Informal “chats” to Support Safe Water

Activity: Villagers are assembled as small groups of friends to discuss why Safe Water is to be preferred over drinking water from traditional sources

Purpose: The Safe Water Station itself is a marketable item and venue. The Operator and the Safe Water Station Partners should use the facility to engage influencers and opinion leaders to become deeply familiar with and accustomed to using the Safe Water Station. They should use the Station as a venue for convening, discussing, and promoting the Station as a center of community life taking advantage of its security, facilities, and electricity to encourage people to accept the Station as a valued community resource.

Promoting Cost-effective Use of Purchased Safe Water

The purchase and use of Safe Water and Safe Water Storage Containers requires a careful dedication of scarce resources by families and individuals. It is reasonable for the Safe Water Station Partners and consistent with health objectives to promote limited use of Safe Water to maximize the impact from household investment. Safe Water Station Partners typically promote the use of Safe Water for drinking and cooking only. This targets health outcomes and makes cost-effective use of family and individual commitments.

Demonstrating the Purity of Safe Water Through Electrolysis

Activity: A Water Electrolyser is a common and inexpensive device to visually assess the quality of water. Use of the Electrolyser can take place as part of small discussions, community meetings, sessions with key influencers, or at the Safe Water Station.

Purpose: A simple electrolytic test of source water precipitates solvents out of solution so they will be visible and observers can readily know whether their current source water is contaminated or not. After electrolysis for only 30 seconds or a few minutes, the sample water turns a telling color if dissolved materials are present. Safe Water, particularly source water treated by reverse osmosis, should show little or no color.

Typical colors and what they indicate are tabulated below:

Color of Water After Electrolysis	Contaminant
Salmon pink	Ferric oxide (iron)
Green	Cupric oxide (copper)
	Chlorine compounds
Blue	Aluminum sulfate
	Organophosphorus (fertilizers, pesticides, detergents)
White	Magnesium compounds
	Calcium compounds
	Colloids, bacteria, viruses, algae
	Asbestos
Black	Heavy metal compounds
Yellow	Minerals

Materials Needed: Commercially-available Water Electrolyser, two transparent glasses

How to Conduct the Exercise:

1. Clean the electrodes of the Electrolyser (follow equipment directions as available)
2. Take 2 transparent glasses
3. Fill one glass with Safe Water Station water and the other with raw contaminated water used in the community
4. Ensure the Water Electrolyser is not plugged in
5. Place the two glasses close together on a flat surface visible to the audience
6. Place the Water Electrolyser into the glasses with one electrode dipped in each of the tumblers (follow equipment instructions if available). The electrodes must be at least an inch-and-a-half submerged in the water in each of the glasses
7. Ensure that the set-up is stable on its own and does not need to be held by a person to keep from falling
8. Ensure no one is touching the Water Electrolyser and plug the Electrolyser into an electric wall socket with the proper voltage
9. Wait for 2 minutes and see the raw water tumbler contents turning darker (sometimes it may take up to 5 minutes for a color difference between the raw water and the treated water to appear)
10. Turn the Water Electrolyser off by unplugging it
11. Remove the Water Electrolyser from the water and hold the glasses high up to demonstrate how the contaminated water has turned color due to contaminants in the water
12. Clean and dry the Water Electrolyser electrodes and store the device

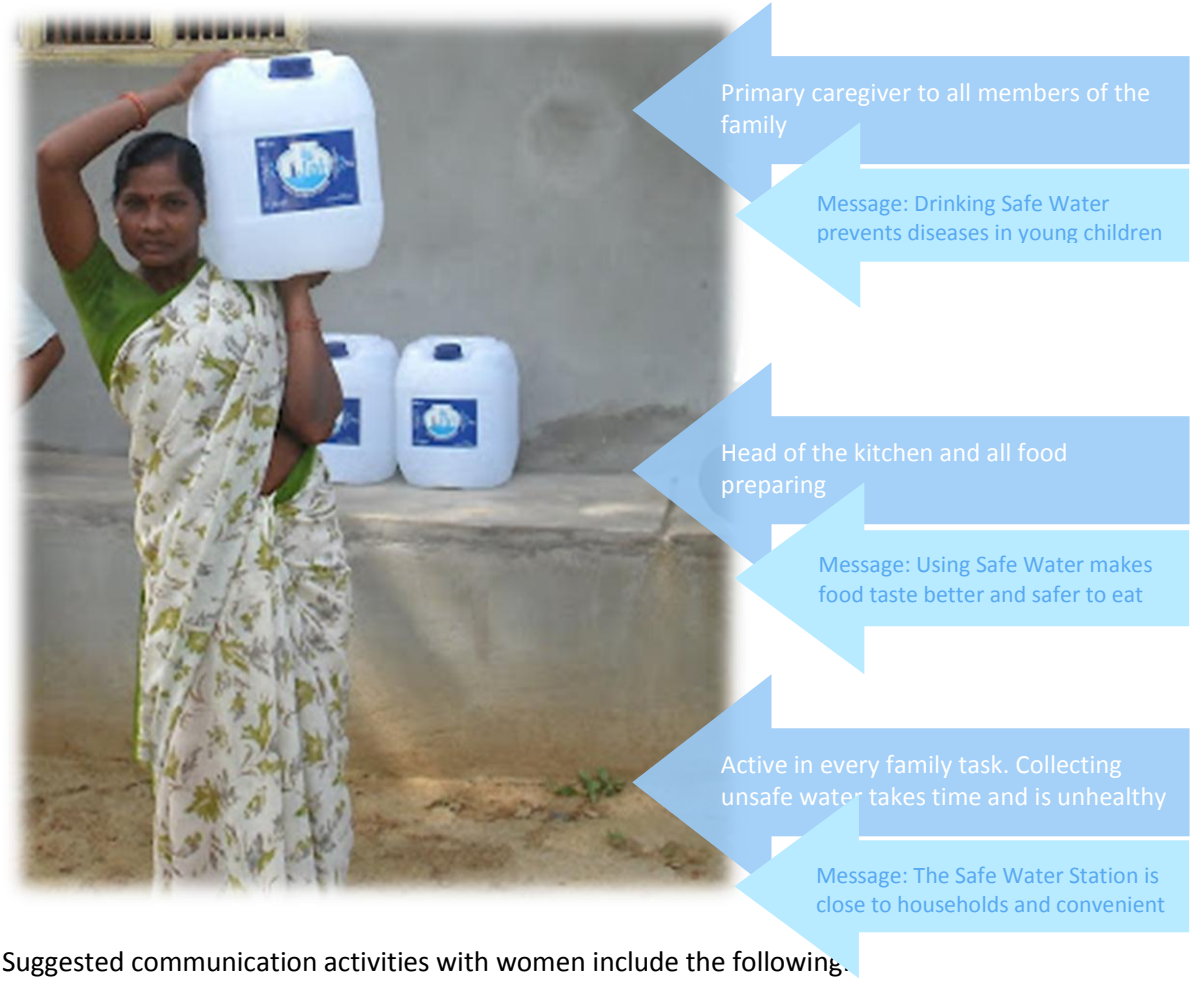
Setting up the Water Electrolyser

Untreated, contaminated village water

Safe Water Station Water: 100% free of contamination

Generating Demand Among Women

Men and women hear and prioritize message in different ways, and different communication approaches should be styled to meet their practices and needs. Some general guidelines to follow in developing communication programs to appeal to women are presented in the follow illustration. The first, larger arrow presents typical roles of women in community life. The second, smaller arrow indicates the style of messages that may be attractive to women who have the indicated role.



Suggested communication activities with women include the following.

Monthly Talks

Activity: Monthly meetings with women's groups.

Purpose: To educate the leaders and members of women's groups about Safe Water and the benefits of Safe Water Storage Containers and the Safe Water Station. To seek their support and engage them in promotion Safe Water purchase and use.

Personal and Family Hygiene

Activity: Women are taught about personal and family hygiene. Special focus is placed around how this affects the health of children and other family members

Purpose: To promote the purchase and use of Safe Water

Activity: Women are provided with information that helps them understand the various diseases caused by impure water

Purpose: To promote the purchase and use of Safe Water

Activity: Demonstrations are conducted showing how cooking with Safe Water reduces fuel consumption, which in turn can bring in cost savings for them. The demonstration also illustrates how food cooked with Safe Water tastes better than cooking with normal groundwater

Purpose: To promote the purchase and use of Safe Water

Prize Distribution for Best Maintained Safe Water Storage Container

Activity: Prizes are distributed by the Safe Water Station for the best maintained Storage Container. Prizes should be supportive of the operations of the Safe Water Station

Purpose: To promote the purchase, use, and maintenance of Safe Water Storage Containers

Running Competitions Using Safe Water Storage Containers

Activity: Running competitions are organized for women while carrying filled Storage Containers.

Purpose: Showcases how easily women can carry full Safe Water Storage Containers to promote purchase and use of Safe Water Containers

Generating Demand Among Men

Men make most of the financial decisions in villages and hence their support is crucial for the success of the Safe Water Station. Men are often best motivated to use Safe Water by highlighting the income lost due to sick days and paying doctors' fees.

Some general guidelines to follow in developing communication programs to appeal to men are presented in the illustration on the following page. The first, larger arrow presents typical roles of men in community life. The second, smaller arrow indicates the style of messages that may be attractive to men who have the indicated role.

Several suggested activities that communicate the "5 Points" and are likely to be attractive to men are presented after the illustration on the following page.

Activity: Monthly meetings with men at the Safe Water Station

Purpose: To educate leaders and husbands about Safe Water and the benefits of Safe Water Storage Containers and the Safe Water Station. To seek their support and engage them in its promotion in their families and across the community. To display the rigor of Safe Water Station operation and ensure that their questions are answered.

safe water network

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