



Sustainable Village Water Systems Program (SVWSP) for Tanzania

Rural Water Service Franchise Model

The Need for a New Approach

Water points in rural Africa currently face a high failure rate (40% according to a 2015 Tanzania Water Point Mapping exercise), in part because communities are not always able to manage them on their own. Many factors have been identified that contribute to water point failure, including:

- **Lack of financial resources:** Communities often have a difficult time saving money for operational and maintenance costs, so they are not able to keep the system functioning. This occurs for a variety of reasons: only a portion of those who use the system actually pay for the water they consume either due to favoritism, corruption or inability to pay; the attendants charged with collecting the tariff on each water purchase fail to do their job or keep a portion of the revenue for themselves; and the committee in charge of the water system allocates funds collected for other purposes besides operations and maintenance costs. When diesel fuel is needed or something in the water system breaks-down, they cannot afford to get the system operating again
- **Inadequate knowledge and institutional capacity:** Communities are not equipped to manage the installation of a new well, from correct siting to professional construction, or to independently operate and maintain their water system.
- **Lack of access to service and parts:** There is not a well-developed network of mechanics or supply chain for spare parts, so communities often cannot fix a non-functioning water system.
- **Inadequate monitoring and supervision:** Although the District government is charged with monitoring and supervision of village water systems, they lack the funding to do this effectively. Not having a single point of responsibility from end-to-end with enforceable standards leads to a failure of the overall water scheme.

The Need for a New Business Model

To accomplish the goal of developing a sustainable rural water system, GWI is proposing the implementation of a franchise model involving the private sector. The core philosophy behind the establishment of this system for water service and maintenance is that a water point is more likely to be sustainable if individuals, contractually obligated to meet defined brand performance standards, have a vested economic interest in the continual flow of water.

The national government's rural water policy is based on two main principles: community participation and private sector involvement. To foster these principles, the government is actively promoting public-private partnerships as a preferred approach for improving rural water sector performance. Given the favorable environment for public-private partnerships, GWI devised a rural water service franchise model that allows for responsible community participation and private sector leadership which will effectively address the causes of water system failure cited above and enable consistency in clean water availability at the local level.

The Rural Water Service Franchise Model

According to Tanzanian national policy, each village owns its water supply system. Acting on behalf of the community, the Village Council has responsibility for operating and maintaining the borehole and distribution infrastructure. Typically, the Village Council delegates this responsibility to a Village Water Committee (VWC) or a Community-Owned Water Supply Organization (COWSO) that handles the day-to-day operations of the water system. More recently, the trend has been for Village Councils or their delegate entity (VWC or COWSO) to subcontract operations and maintenance of the village water supply

to a private sector operator. Because of a lack of oversight and consistent direction, significant deficiencies exist that a franchise model can effectively address.

In the GWI rural water service franchise model, a *Franchisor* obtains capital to invest in high-quality, reliable and efficient solar-powered pumping systems which reduce the cost and improve the reliability of groundwater pumping and delivery. The *Franchisor* introduces the prospective village to a public-private partnership in which the Franchisor installs the new pumping system in exchange for the right to operate and maintain the village water system. The Franchisor pays the village to lease the borehole and distribution system as part of the private operator scheme. The *Franchisor* recruits, selects and trains a *Franchisee* to be the private operator, and the franchisee handles the day-to-day operations of the water system to the franchisor's brand standards. This *Franchisee* pays the *Franchisor* to sub-lease the borehole, pumping equipment and distribution system and for access to the Franchisor's intellectual property and support services. The *Franchisor* provides the *Franchisee* with training, marketing support, service standards, proven operating and maintenance procedures, access to an established supply chain, and support from trained repair technicians. As a contractual relationship exists between the franchisor and franchisee and the franchisor has defined its standards of performance, franchisees can lose their rights to their water business, including their economic investment if they fail to meet the obligations of the contract.

The responsibilities of the Franchisee and Franchisor are as follows:

- **Franchisor:** This is an existing or newly created entity, backed by an in-country management team with extensive business experience and franchise system management training. The Franchisor is primarily in the business of selecting and supporting the Franchisees and its number one priority is the growth and management of the franchise system. The Franchisor will obtain support for the franchise model from the Ministry of Water and Irrigation (MOWI), and regional and district governments, and use this support to establish credibility with rural villages regarding the benefits of the franchise model. As part of a public-private partnership, the Franchisor will use capital it raises to install new solar-powered pumping, distribution and storage equipment in exchange for the right to operate the village water system. The Franchisor will retain ownership of the pumping equipment, but will pay the village to lease the borehole and distribution system. The Franchisor is responsible for recruiting and selecting a Franchisee, and providing the training, marketing, supervision, field support and compliance oversight necessary to meet the obligations set forth in the franchise agreement. It will also maintain a supply chain by working with preferred vendors to ensure replacement parts are available in a timely manner when Franchisee water system require repairs. Franchisees will be trained and are responsible for day-to-day maintenance of the equipment and the management of their local businesses to brand standards. The Franchisor will locate parts depots strategically throughout the country to stock higher cost, longer lead time parts. The Franchisor will assess new technologies such as automated kiosks (eWaterTaps) and prepaid meters to improve efficiency and reduce operating costs. The Franchisor will also maintain a network of trained repair technicians to conduct major repairs on the water points and a cadre of field support consultants who will provide business support to Franchisees. The Franchisor will continuously monitor remote sensors to aid in the quick, and possibly proactive, response to issues with the operation of the water system. The Franchisor will also share monthly performance metrics with the District, Regional and National governments.
- **Franchisee:** This private sector individual or small group manages the day-to-day affairs of their business to meet brand standards established by the Franchisor including the sustainable and reliable provision of clean water. Tasks required to fulfill this role include collection of user fees, employing and managing attendants, ensuring the day-to-day maintenance, security and integrity

of equipment and infrastructure, keeping financial records, paying into a Capital Replacement Account (CRA) that will be the source of funds for major repairs. Franchisee will conduct local marketing efforts, perform maintenance and minor repair work, maintain the equipment and site in clean working order, monitor well output and equipment operation, contact the Franchisor as soon as output performance issues arise, and cultivate relationships with the local community and government authorities. The Franchisee will enter into an agreement to sub-lease the borehole, pumping equipment and distribution system from the Franchisor and pay a royalty to license intellectual property and receive support services. The Franchisee makes the borehole/equipment lease payment to the Village Council or the COWSO on behalf of the Franchisor. The Franchisee will maintain a supply of lower-cost/high-use parts and supplies on-hand to ensure that any disruption in water availability will be limited. The Franchisee will make all transactions associated with water system operations transparent to local and District government authorities, and the Franchisor.

Pre-Installation Activity

According to national policy, the District government is to provide villages with technical assistance and oversight to help ensure the sustainability of local water supplies. The District Water Engineer (DWE) is officially responsible for discharging these duties. Before working directly with a particular village, the Franchisor will brief the District on the benefits of the proposed public-private partnership and the workings of the franchise system to gain their buy-in and support. The Franchisor will work with the District Water Engineer to ensure that a proposed lease agreement (Water Services Agreement) between the Village Council and the Franchisor has the support of the District Water and Sanitation team. The DWE will review plans for the new water infrastructure and its operation and maintenance. The Franchisor will make plans for the new water infrastructure available for the DWE to review and ask that he or she periodically visit the village to assess the performance of the water system.

With the participation of the DWE, the Franchisor will meet the Village Council to brief them on the benefits of the proposed public-private partnership and the workings of the franchise system to gain their buy-in and support, and begin the process of building community support for the new water system. Once the Village Council is supportive of moving forward, the Franchisor will conduct a site assessment to learn more about the existing water infrastructure, engineering constraints, existing sources / uses of water, well yield, water quality and the availability of qualified candidates to serve as the Franchisee before committing to the project. The Franchisor will also use the assessment to further the process of building community support and buy-in for the new water system.

The Franchisor will work with the Village Council or COWSO to improve the community's understanding of the benefits of clean water and improved sanitation. These efforts will focus on general health, hygiene, sanitation, the need to pay for water service, the benefits of an independent private sector franchisee and water-stewardship training for the community at large, with an emphasis on involving local women as trainers. The core idea is to create a network effect through involvement of the women in the local community, thereby changing the perceptions and practices for the next generation. On-going social marketing efforts emphasizing the health and economic benefits of clean water will be carried out by the Franchisee (using materials provided by the Franchisor) to stimulate demand for the service. The goal of this process is to involve the community in order to gain their buy-in and create a sense of ownership over the process and subsequent outcomes.

Selection and Training of Franchisees

The Franchisor has the final responsibility for selecting and training of franchisees. The Village Council, water committee and other community organizers should be consulted for recommendations regarding

candidates. At a minimum, the local Franchisee will need to be highly motivated, well-respected in the community, financially capable and have the desire and capacity to learn how to run a small business. While they don't need experience with water systems, business experience of some kind is desirable. Experience managing or directing others (women candidates should have experience directing men if men will be working for them in the franchise) is an important consideration. Facility or site management experience would be highly beneficial. Candidates with technical or diploma school training will be considered favorably.

Prospective franchisees must demonstrate that they have liquid assets to pay the initial franchise investment of between \$500 and \$1000 depending on the well yield and potential revenue, and cover up to three months of operating expenses until the business achieves breakeven sales revenue.

The Franchisor will provide Franchisees with on-board training to ensure they are equipped with the necessary skills to run their business, maintain brand standards and grow the franchise system. Curriculum development and content delivery are critical franchisor functions. Key topics to be covered include technical training, business financial management, maintaining brand standards, managing employees, customer relations and problem-solving.

Initial training for Franchisees will be provided by the Franchisor at its headquarters or regional training centers allowing for multiple Franchisees to be trained at the same time whenever possible. When centralized training is required, Franchisee travel and lodging expenses will be paid by the Franchisor. Training will not include generic business training, but will focus on the specifics of water service franchise operations.

Field Support Consultants

Field Support Consultants will act as the direct communication line between the Franchisor and the Franchisee. Their primary goal is to assess the franchisee's operations, ensure deliver to brand standards, provide consulting assistance on business issues and help the franchisee be as profitable as possible. It is important to note that this role is not intended to be the Franchisee's supervisor or boss, but rather a consultant who is an employee of the Franchisor and able to provide support to the Franchisee, provide feedback to the Franchisor and monitor brand standards are adhered to. The field support consultant will provide business consulting on operations, brand standards, assistance with training local employees, costs, staffing, marketing, and record keeping with the end goal of improving the profitability of the Franchisee. They will also attempt to ensure that problems at the village level are identified before they lead to non-performance or default by the Franchisee. Field support consultants will need to be well-educated individuals, have technical knowledge of water, pumps and delivery mechanisms, have great interpersonal skills and are willing to travel throughout their region to visit each site on a regular basis or as needed basis. The Franchisor will attempt to recruit diploma and vocational education schools to offer field support consultant training to their students. They will also require extensive training in franchising, franchise relationship management and the business of water delivery. Successful franchisees are ideal candidates to be Field Support Consultants, but they can also contribute to the development of other Franchisees by becoming mentors within the franchise system.

Repair Technician Development

The Franchisor will train and maintain a network of repair technicians. Each mechanic will be responsible for a cluster of villages, with the number based on required maintenance schedules and route optimization. The Franchisor will be responsible for creating a training program that will lead to the certification of repair technicians. The training program will be developed with the support of preferred vendors and partners. The training program may be delivered by UDOM, vocational and technical schools or the Franchisor. Only certified repair technicians will be permitted to work on Franchisee managed

equipment. In addition to knowledge transfer and the creation of jobs, this will also address the need for skilled labor that prevents many pumps from being repaired.

Financial Flows of the Business Model

The GWI franchise model operates entirely using mobile bank accounts such as M-PESA. The Franchisee maintains control over three separate accounts: the Operating Account, the CRA and a Personal Account. Water service customers purchase water using their mobile payment accounts. This may be facilitated by attendants or automated kiosks such as those provided by eWater. Payments are deposited into the Franchisee’s Operating Account. The Franchisee transfers funds from this account to the Franchisor, the CRA, the Village Council, and employees and vendors. The remaining funds, the Franchisee’s profit, are transferred to the Franchisee’s personal account.

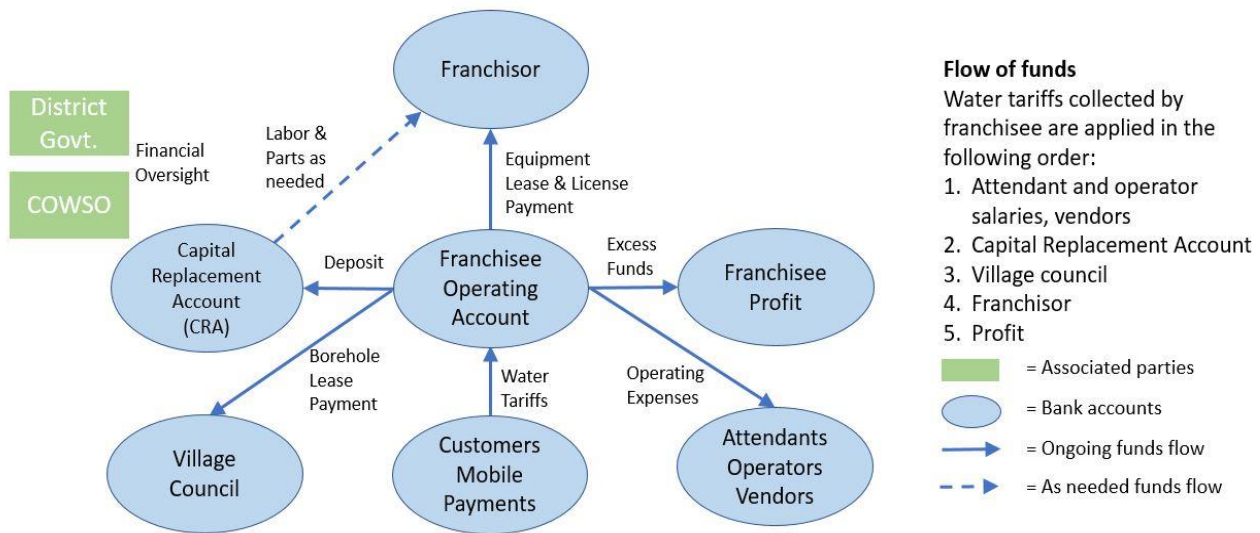


Figure 1. Flow of Funds in Franchise Model

Initial Franchise Fee

The Franchisee will pay a fee on the day of signing the Franchise agreement to become a member of the franchise system. In addition, it serves as a demonstration of the franchisee’s intent to carry out the obligations of the franchise agreement. The amount of the fee is based on the potential revenue of the specific franchise as determined by population.

Population	Initial Fee (TSH)
< 2,000	546,500 (\$500)
2,000 to 3,000	655,800 (\$650)
3,000 to 4,000	874,400 (\$800)
> 4,000	1,093,000 (\$1000)

Table 1. Initial Franchise Fee

Borehole, Pumping Equipment and Distribution System Lease Payment

The Franchisor will lease the borehole and distribution system from the Village Council or COWSO. The lease payment will be 5% of water revenues and will be deposited into the Village Council’s mobile account weekly by the Franchisee from the Operating Account. By agreement, the Village Council will use its funds to purchase water for those it deems are unable to pay for water on their own.

Franchisee License Payment

The Franchisee will license intellectual property (service standards, proven operating and maintenance procedures, access to an established supply chain) as a requirement of establishing and maintaining membership in the franchise system. The license payment will be 5% of water revenues and will be deposited into the Franchisor’s mobile account weekly from the Operating Account.

Borehole, Pumping Equipment and Distribution System Sub-lease Payment

The Franchisee will sub-lease the borehole, solar-powered pump, controller, solar panels and distribution system from the Franchisor. The license payment will be 5% of water revenues and will be deposited into the Franchisor’s mobile account weekly from the Operating Account.

Operating Assumptions

- Customers will purchase 10 L per person per day in the dry season and 7 L/person/day in the wet season
- Village leases borehole to the Franchisor and receives 5% of sales to buy water for elder and disabled
- Franchisee pays Franchisor 10% of sales for the sub-lease and license
- Franchisee deposits 20% of sales into a Capital Replacement Account
- Franchisee operating expenses average 40% of sales
- Franchisee retains the remainder of sales (roughly 25% of sales) as compensation and profit

Capital Replacement Account (CRA)

The Franchisee will deposit 20% of water revenues into a mobile CRA that can only be used for major repairs and parts replacements. Deposits will be made weekly. The CRA will be jointly administered by the Franchisee and the Franchisor. Transfers of funds out of the CRA can only be made with the approval of both parties, and the District Water Engineer, for essential capital repairs.

Routine Operations and Maintenance Expenses

The Franchisee will be responsible for paying all routine operations and maintenance expenses including salaries for the pump operators, maintenance workers, and water point attendants, community outreach, training and advertising. These expenses are expected to average between 40% of monthly water sales revenues. The funds remaining at the end of each month after the above payments, deposits and expenses are accounted for will be considered the Franchisee’s profit.

The Franchisee will be responsible for minor repairs and maintenance, which includes keeping all above-ground infrastructure in good working order. They will be supported in this role by training provided by the Franchisor, as well as training manuals and operational handbooks in English, Swahili, and pictorial format. Manufacturers and distributors will be required to participate, conduct and/or pay for training specific to their equipment. The Franchisee will keep a stock of routine parts such as gaskets, tap spouts, and piping and tools so that there is no delay in addressing routine maintenance issues. The

franchisee will also have a technical support number to call (staffed by the Franchisor) if they have any questions.

Major Repairs and Parts Replacement

The franchisor will periodically inspect the wells to avoid any disruption in service. The Franchisee will notify the Franchisor of all equipment malfunctions, breakdowns or other non-normal condition, should they occur. If the condition is outside the capability of the Franchisee as defined by the Operations and Maintenance Plan and in discussion with the franchisor's maintenance team, the Franchisee will notify the Franchisor, who will dispatch a certified technician to handle the repairs and/or parts replacement. The Franchisee will also notify the Village Council (or its designee) and the District Water Engineer that a system problem has occurred which will require maintenance support from the Franchisor. The Franchisee will permit only technicians certified and assigned by the Franchisor to work on water system equipment. The cost of labor, travel and spare parts will be paid by the Franchisee to the Franchisor from the CRA.

Customer Payment

The Franchisee will implement the following related to sales of water to customers:

a. Collect a water tariff at the rate of TSH 50 per 20 liter container. The Franchisor reserves the right to increase the water tariff after consulting with the village water committee and the village council, and with the approval of the franchisor.

b. Collect this tariff on all water dispensed from the water system. The primary school should pay for the water consumed by staff and students. The clinic should pay for water consumed by staff and patients.

c. Only accept mobile payments for all water transactions and use mobile payment accounts to pay operations and maintenance expenses, payments to the village government, and to accumulate funds for major repairs and parts replacement

d. Make all of these mobile bank accounts transparent to the village government, the water committee, the community and the District Water Engineer.

Supply Chain

The Franchisor will also manage a supply chain of parts and components. To standardize all the maintenance/repair parts in the system, the Franchisor will order parts from a list of vetted preferred vendors. Whenever possible, parts will be obtained from local manufacturers and suppliers. The supply chain will be designed so that major components can be delivered to the community and the repair technician can make any necessary repairs within 72 hours.

Financing for Water Village System Repairs

When major repairs are necessary, funds will be withdrawn from the CRA and paid to the Franchisor for necessary parts, labor and travel. If funds in the CRA are insufficient to cover the cost of necessary

parts, a third party credit provider selected by the Franchisor will arrange financing to cover the cost of the replacement parts as a loan to the fund. The terms of credit extended to the CRA will be established as part of the franchise agreement in order to avoid repair delays as a result of arranging or negotiating financing terms. The third-party credit provider will be able to pool water point loans across the entire system in order to mitigate risk from any single site. Loan repayments will be made from monthly disbursements from the CRA.

Multiple Franchise Operators

A Franchisee may become a multiple-franchise operator if the Franchisor deems the Franchisee capable of operating the water systems of multiple villages. In such a case, the Franchisee will enter into multiple franchise agreements with the Franchisor, one for each village they are assigned, and be held to performance standards for each franchise independently.