

project  
**maji**  
transforming lives



**2020/21**  
**IMPACT REPORT**



# MESSAGE FROM THE CEO

Another year completed for Project Maji...  
A unique one for us and the entire world.

Faced with unprecedented challenges and suffering around the world, we were concerned as to how this might affect support for our cause when so many new and needy causes were cropping up closer to home for so many of our supporters. However, fortunately, we quickly realised those fears were unfounded as we not only saw ongoing support from many of our core partners with some of them doubled down their commitments and several others adding additional support for specific COVID-19 focused responses in the communities we work.

We indeed faced our own challenges in the field with national lockdowns. Our teams in Ghana and Kenya faced several weeks of restricted movement which hindered our efforts to deploy as many new kiosks as we would have liked. That said, I am immensely grateful to the efforts and resilience they showed to keep our operations and existing kiosk network up and running during that time, putting their own health at risk at times.

These difficulties forced us to reflect and adapt ourselves as we pivoted our model in the spring to add our own COVID response actions in the shape of the Maji Bucket. A low cost, easy to deploy touch-free handwashing bucket designed for rural communities.

We managed to deploy more than 400 with the support of Aqua for All funding on the back of Mina Guli's #SweatForSoap awareness campaign during Global Handwashing Day.

It also proved to be a tremendous year for cementing and building new partnerships as we worked to cement new long-term partnerships with IFRC, Water4, Aqua Africa and Kyrie Irving's foundation.

As we progress into 2021 in the hope of a return to some semblance of normality, I owe an immense debt of gratitude to a team of dedicated professionals who have seen us through the past 12 months while faced untold challenges. Some faced sickness themselves and others worked tirelessly through the year and spent months separated from family. Yet everyone stayed committed to our central cause with a clear focus to keep Project Maji on mission and to address a cause that is bigger than all of us individually.

My thanks also goes out to all of you have been there through the years, with financial and moral support. This continues to give us energy and encouragement to keep on going until we hit our first key milestone of transforming the lives of 1M people through the provision of sustainable access to safe water by 2025.

We are well on our way .....

Thank you and sincerely,



**Sunil Lalvani**  
Founder and CEO

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A photograph of a group of children, with one child in the foreground holding a glass of water. The image has a blue overlay and a white diagonal shape on the left side.

## WHO WE ARE

**We are a non-profit safe water enterprise, working to provide sustainable access for safe water to rural communities and growth centres in Sub-Saharan Africa and beyond.**







## WHAT WE DO

Project Maji designs, develops and implements solar-powered water kiosks, called “Cubes”. Designed to be fit-for-purpose to perform well in the harsh and varied rural environments, our cubes are modular, customisable, mobile-enabled, affordable, and durable. With a steady supply of sunshine year-round in the communities we serve, there is a constant power-supply to all our sites at zero cost: a key element in keeping our solution truly sustainable.

With our e-payment system communities are able to collect water at any time, simply at the touch of a tap, saving time that would otherwise be spent waiting in long queues at a handpump or walking to distant and polluted, open water sources. In-built remote monitoring and robust site-servicing allow for daily evaluation of the performance of each kiosk, resulting in maximum uptime at minimal cost.

## OUR MISSION

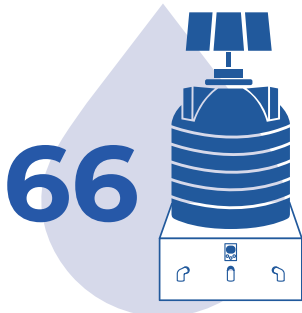
**To serve 1 million people in rural communities with sustainable access to safe water by 2025.**



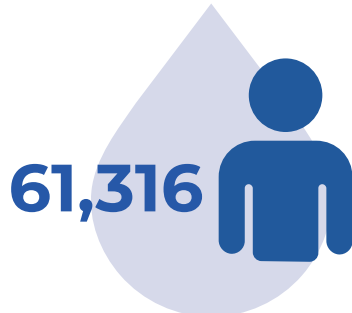




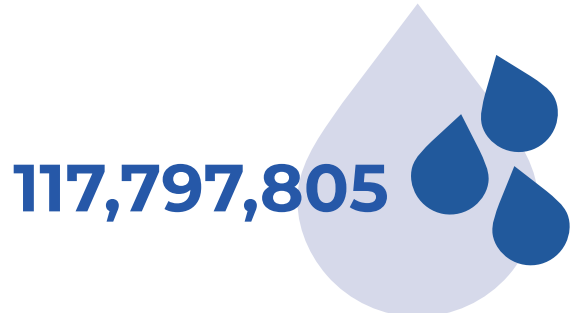
## IMPACT NUMBERS - AT A GLANCE



Total number of sites



Number of people impacted



Litres of safe water pumped

## COVID - 19 RESPONSE



75,000

Total number of people reached



60

Number of handwashing trainings delivered



8,000

Bars of soap distributed



450

Maji Buckets distributed



## MAJI IMPACT: REDEFINED

The threat faced by millions of water-poor communities has never been more daunting and the urgency to deliver safe water access to them has never been greater. In the wake of COVID-19, clean water is not just a life-source, it is the first line of defence against senseless loss of life. At the same time, ensuring access to clean water without facilitating hand hygiene is simply inadequate.

For us, COVID-19 has redefined our priorities, our operations, and the way we look at our impact as a safe water enterprise. Our work truly begins after delivering a clean water source to a village. We teach families the importance of abandoning contaminated water sources, and at the same time washing their hands regularly to fight off dangerous germs and viruses.

Our response to the pandemic has gotten bolder each day as we learn, iterate and improve. We started off by ramping up hygiene education and looking inward to reflect on the effects of the pandemic on

our ongoing operations and roll-out plans. We used the lockdown weeks to design COVID-specific WASH trainings. Next, we partnered with like-minded organisations to roll out these trainings, along with the distribution of Maji Buckets and bars of soap within the communities we work.

But through it all, we have also remained focused on our core mission, ensuring sustainable access to safe water for remote communities. We know that clean water has substitute, and the need for it does not pause for pandemics. So, we navigated the curveballs thrown at us to open the taps of twelve more solar-powered safe water kiosks, bringing our total to 66 sites across Ghana and Kenya. In 2020 alone, we served more than 60,000 people with nearly 50 million litres of clean water. That is, an average of 2,663 litres of safe water each day. This was all made possible by our dedicated teams on the ground, cheered on by the communities they serve and empowered by the generous contributions of our supporters.





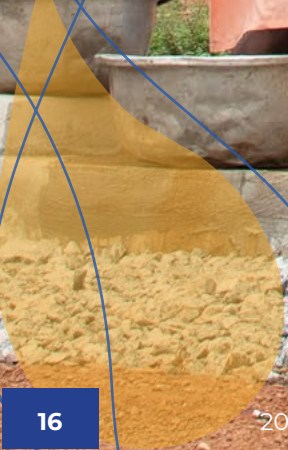
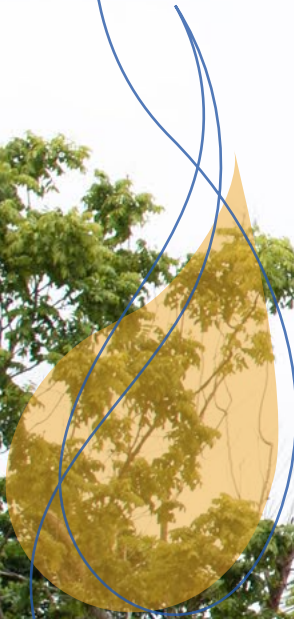
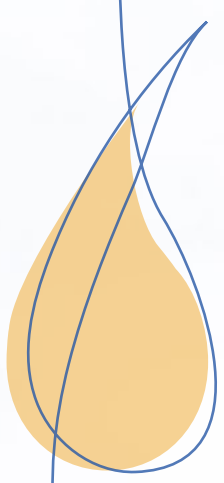
## PANDEMIC REVEALS DEPTHS OF THE WATER CRISIS

[785 million](#) people in the world lack access to water. This means 1 in 9 people around the world struggle to secure a glass of clean water every day. Forced to make a choice between filthy water and no water at all, [2 billion people](#) drink water contaminated with faeces. It preys on children under the age of five, [72,000 of whom die each year](#) of water-borne illnesses. Yet, women and girls, spend [millions of hours walking for water](#), carrying buckets as heavy as 20 kilos. The water they carry is disgusting and makes them and their families sick with diseases like dysentery, cholera and typhoid. Girls drop out of school and women confront the risk of sexual violence walking for water. Alternatively, they suffer from [intimate partner violence, anxiety, low self-esteem and depression](#), all because of their inability to secure water for their household. Water insecurity forces people to endure life rather than living out its full potential.

### COVID-19 exasperates existing inequalities

Today, more lives are on the line than ever before and the need for clean water has never been greater. But the pandemic is pushing [71 million people into extreme poverty](#) and unleashing huge [revenue losses and funding cuts for water utilities](#) affecting their ability to make critical capital investments. On top of that, mobility restrictions and frequent lockdowns are effectively halting access to water. COVID-19 has amplified the need for clean water, but obstructed access to it, leaving an even more chaotic lifeworld for water-poor families in its wake. If ever there was a moment to seize upon the small gains prompted by a global event, the moment is now.

COVID-19 is shining a harsh spotlight on the inequalities and hardship that the lack of water inflicts. Working like a chemical experiment, it is suddenly illuminating present but hidden realities. It reveals to the developed world that millions of human beings around the world drink from muddy ponds, swamps in drought-struck riverbeds and rust-ridden handpumps. These people do not have water to drink and cook, a far cry from washing their hands to shield themselves against the virus. At Project Maji, we see this heightened level of attention on the water crisis as an opportunity to flip the script on the future of water-poor communities.





## URGENCY MUST NOT CROWD OUT SUSTAINABILITY

The possible [influx of investments in the WASH sector in the post-pandemic world](#) must be channelled to deliver sustainable solutions. However, for decades, the handpump has been considered the default solution to water insecurity. Delivered with a charity-mindset, without a secure source of funds for ongoing maintenance, even the best handpumps are likely to break down. Hundreds of thousands of rusted and defunct handpumps dotted across the

African continent tell us that it is a well-meaning intervention that lacks a long-term understanding of the crisis. It is a real tragedy that suddenly strips communities of access to clean water and leaves them no choice but to commit to long arduous walks for unsafe water. We argue that communities deserve more than a handpump; they deserve a sustainable safe water source that provides dignity, trust and reliability. The Maji solution offers all this and more.





SCAN or **CLICK**



# THE MAJI SOLUTION



## PAID WATER RESTORES DIGNITY

When we look at millions of people without access to water, we do not see vulnerability, we see opportunity and potential for social progress. At Project Maji, we operate with a business mindset and see our beneficiaries as consumers to be served. As a social enterprise, affordable clean water and high quality service delivery are what we offer.





**“Charity is not  
the answer,  
self-reliance is.”**

**Why is paying for water so important and how do we know what price is fair and affordable?**

Providing sustainable access to water looks different in each community we enter. So, the first step for us, is to assess the local needs, current service levels and the purchasing power. We talk to the community elders, men and women and conduct pre-impact studies to assess how much will they be willing and able to pay. Turns out, 0.2 cents per 20-litre bucket is affordable for the Gyamtutu Community in rural Ghana. Our aim is to sell 2,500 litre per day, with which we can ensure a level of financial sustainability. The in-built e-payment system collects and stores water revenue for future repairs and ensures customers keep receiving high-quality, reliable water services. The revenue stream covers operating expenses, including the local caretaker’s salary, and technical support, making each kiosk sustainable and Maji communities self-reliant in perpetuity.



## **E-PAYMENT SYSTEM FOSTERS COMMUNITY TRUST**

Water and money have long been an uneasy mixture. Mainly because water payments lack accountability and often land in the personal hands of those who are supposed to be collating these funds for future possible repairs.

### **Did you know?**

**In the past 20 years, a total of 1.2 billion dollars has been squandered in investments on non-functioning water infrastructure in Africa. Through e-payment systems, we are rethinking rural water economics to promote sustainable access to safe water.**



In Maji communities, villagers make payments through pre-paid RFID tokens topped up with cash or mobile money. The first five buckets (100 litres) on each token are free to incentivise use and familiarise users with the convenience the system offers; being able to access water 24/7 at the touch of a tap instead of waiting in long queues for the availability of the caretaker to make cash payments. The amount collected through the e-payment system is secured in a dedicated account kept for supporting the maintenance and repair of the system.

In our experience, after community sensitisation sessions, our low-income consumers rate the water price as affordable. Data confirms they will save money on medical expenses and use freed up time and energy to generate additional income through economically productive activities. In case the water service is disrupted, the water revenue collected through e-payment system allows us to restore operations at short notice and restore community trust and reliance on Maji outlets. This is key in solidifying willingness to pay and sustainable community financing of each water point.



Scan or [CLICK](#)





## REMOTE MONITORING RESTORES RELIABILITY

What does a reliable water service look like? For us, it is one that follows a build-operate-sustain trajectory. Unlike traditional charitable models we do not simply move on after delivering a solution; we commit to ensuring its smooth functionality in perpetuity. We recognise our responsibility in ensuring the kiosk that becomes the life-source of Maji communities, is always up and running. Our bi-annual site-servicing scheme and the built-in remote monitoring feature allow us to do just that.





The designated kiosk caretaker receives basic training for daily upkeep and maintenance of the kiosk. In the unlikely event of an issue, our trained and qualified technical team is equipped to restore kiosk operation within five days.

Through remote monitoring, the performance of each kiosk is monitored on a daily basis by our technical team, and the data is disaggregated to minimise site visits and ensure maximum uptime at efficient costs.





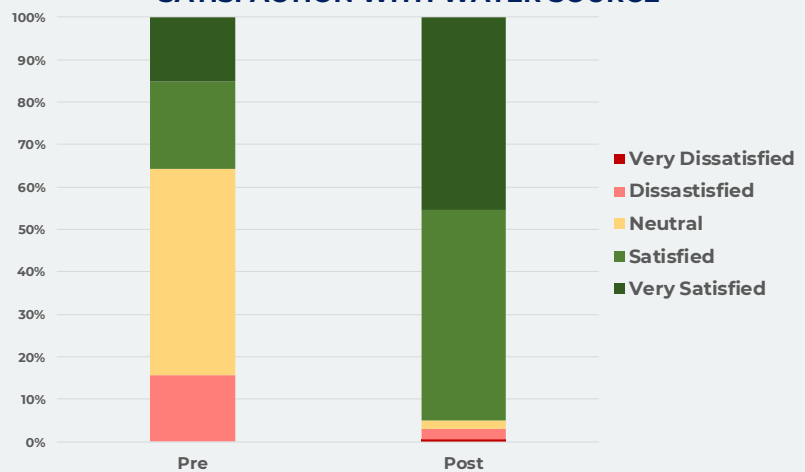
## VALUE-CREATION ENSURES WILLINGNESS TO PAY

We try to recognise what our consumers value most in a water service to ensure long-term sustainability. Keeping in mind every community's default water fetchers and our most important consumers, we improve the safety of women and girls by situating the kiosk in the heart of their communities, usually just a short stroll (250 metres) from their front door.

Compared to the 2 hour-long water walks pre-intervention, our kiosks free time and energy for girls to be in school and for women to supplement their income and be with their children. Next, the water must taste good. The built-in basic water filtration feature ensures safe water is not just kind to the body but also tastes good to ensure consumer satisfaction. With this consumer-centred approach we create value and unlock Maji communities' willingness to pay for water, effectively sustaining the financial viability and longevity of each kiosk.

As a result, 95% of our consumers report being highly satisfied with our service in the communities we serve:

### SATISFACTION WITH WATER SOURCE



## FIT-FOR-PURPOSE SOLUTION ENSURES HIGH IMPACT AND SUSTAINABILITY

The Project Maji solution is designed to be fit-for-purpose to perform well in the varied rural environments that we work. Our standard solution is modular and is flat packed to be transported to remote rural communities often difficult to access by road.

The solar panel set-up and electrical wiring are completed and tested in our state-of-the-art factories so that minimal electrical connection work is required on site and the entire kiosk can be assembled within a couple of days. The number of solar panels and required power depend on the depth of the aquifer and we determine the capacity of each solar installation based on the results of hydrogeological tests conducted at each potential site.

Next, we apply a cluster approach, installing our kiosks in adjacent villages to create a network that allows for scalability and efficient management at low cost. The cluster approach also promotes universal coverage, pushing multiple communities up the water service ladder, enhancing community commitment, and strengthening local water governance in support of the sustainability of each network.



Accessible

Modular Design

Fully customized

Sharing a single pump and water source

24/7

Low cost due to unlimited African sunlight

design

scalable

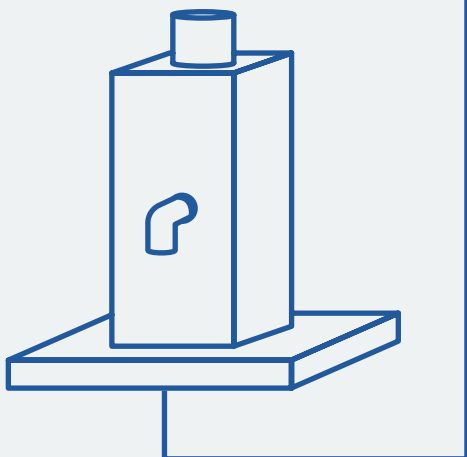
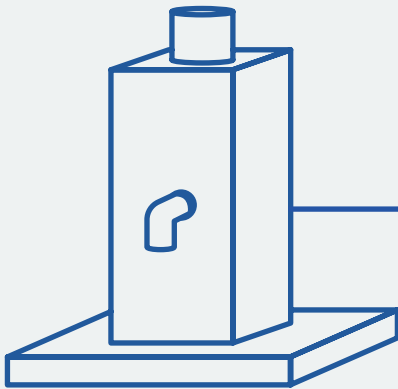
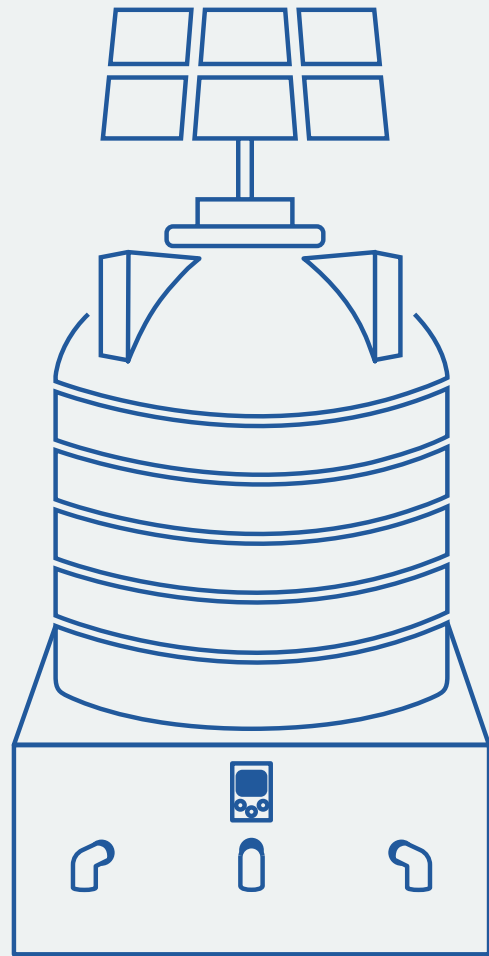
power

Mobile enabled to monitor remotely

## NEWLY INTRODUCED: STANDPIPES

To reach smaller rural hamlets (<500 people) close to bigger decentralised water distribution points, our engineering team have developed standpipes with a smaller solar panel array. Water is sourced from either a central borewell or a river and pumped into an elevated tank after undergoing the necessary filtration. The safe water is then fed to the standpipes by gravity, creating a rural water hub and spoke system increasing accessibility and Project Maji service levels..

This tailor-made solution helps us reach the more dispersed rural communities in a sustainable and economically viable way. Interestingly, our unique standpipe design supports fetching water from three independent taps, two at the average height that fills buckets/pans on the floor, and one at a height of 2.5 metres (approx.) to allow women to collect water directly into a head pan by standing under the spout. Designed in consultation with village level users, they now no longer have to struggle to lift the heavy water pans from the floor to their heads, easing their water collection burden.



Our first three standpipes are installed in Ghana in partnership with Ghana Red Cross, who have applauded Project Maji's efforts to provide affordable and sustainable solutions to scale up rural water access. With continued support from IFRC and Ghana Red Cross, we will install 30 more standpipes in the West African country in the coming months in marginalised, water-poor villages, investing in their health and prosperity.



Nestlé  
Good Food. Good Life

project  
**maji**

## OUR GROWING FOOTPRINT

# Ghana

Ghana, our home country, is where we began operations in 2015. Starting with one solar-powered water kiosk, we are now 52-sites strong in the West African country. However, the Ghanaian water crisis remains grave, contributing to 80% of the nation's disease burden.



**52 sites**



**\$780,000**

Total amount invested in Ghana



**46,450**

No. of Ghanaian people served so far



Days	Average	Total Litres
<b>37,445</b>	<b>2,663</b>	<b>99,716,035</b>

Total number of litres pumped (since the start of Project Maji's operations up till now)



**75,000**

Total number of people reached through our COVID-19 response



**60**

Number of handwashing trainings delivered



**8,000**

Bars of soap distributed



**450**

Maji Buckets distributed





# 76%

In Ghana 76% of households are at a risk of drinking water contaminated with faecal matter.

# 29%

29% healthcare facilities have limited or no water services available on premises.

# 1 out of 10

One person out of every ten has to spend more than 30 minutes to access an improved source of drinking water.

# 1 out of 5

Only one Ghanaian household out of every five has water or other cleansing agents available at home.



**9.4M**

9.4 million people drink directly from contaminated surface water sources.

**29%**

29% of the rural population have no access to any kind of formal water system.

**34%**

34% healthcare facilities do not have basic water services on premises.

**14%**

Only 14% of the population has handwashing facilities on premises with soap and water.

## OUR GROWING FOOTPRINT

# Kenya

Kenya ranks 147 out of 189 countries and territories in the global human development index. The daunting challenges faced by Kenya's drinking water sector have no doubt contributed to its low ranking. For us, this ranking reflects the suffering of millions of people with names, families, hopes and dreams that have all been compromised living in a water-insecure lifeworld. Project Maji officially set foot in Kenya in 2018. Since then, we have set up 14 solar-powered water kiosks across its Machakos County.



**14 sites**



**\$210,000**

Total amount  
invested in Kenya



**14,866**

No. of Kenyan  
people served so far



Days	Average	Total Litres
<b>6,790</b>	<b>2,663</b>	<b>18,081,770</b>

Total number of litres pumped (since the start  
of Project Maji's operations up till now)



## HOW WE WORK

### STEP 1 Identify Communities

We work with community members, village leaders, local governments, and funding partners to identify smaller rural villages (of less than 1,000 people) and/or rural growth centres (of 2,500-3,500 people) that do not have sustainable access to safe water. We rehabilitate boreholes and replace broken handpumps and install a smart solar-driven water kiosk or standpipes in a bid to make use of existing infrastructure.



### STEP 2 Sustainability Assessment

Before we enter a community, we perform a hydrogeological assessment. All our water is tested against WHO and/or national standards prior to installation and we check the recharge rate of the aquifer. We work with community leaders to develop a sustainability plan for each installation, including mobile payment solutions to secure maintenance funds.





### STEP 3 Water Kiosk Installation

Once a Memorandum of Understanding has been signed with the community and local government has approved our plans, we ship and deliver the water kiosks. We work with local contractors to assemble and install the structure. The Project Maji solar-powered water kiosk assembly is completed within a week.



### STEP 4 Operations and Maintenance

Water revenue collected through our e-payment systems serve as a secure fund to pay for regular site-servicing. Maintenance and repair services are managed by Project Maji engineers. To ensure full functionality and sustainability, every water kiosk comes with a built-in remote monitoring system to evaluate the real-time efficiency and performance of all our sites.





## COMMUNITY ENGAGEMENT:

### Our people are at the heart of what we do.

At Project Maji, we recognise that the success of each site we install lies in the hands of the community. This means we have to deliver what the community desires in terms of water service and evolve every step of the way with the changing needs of those we serve. To this end, we implement our robust community entry strategy, foster sustainable relationships with community leadership through clear and consistent communication, and conduct pre-and-post impact assessments to better understand their water needs.

### Community Sensitisation Protocols

Whilst our teams ensure the technical feasibility of each site, we also conduct preliminary site visits with the goal to engage with community leadership, introduce our solution and its potential benefits to the local community. Next, we seek explicit approval of community leaders through a memorandum of understanding to formally begin operations. The MOU is critical in ensuring our consumers and the recipient communities clearly understand their responsibilities as well as those of Project Maji. More importantly, they understand and accept that they are entering an ongoing financial commitment that will ensure long term sustainable access to safe water for them.



Scan or [CLICK](#)



### Dialogue to Foster Trust

Through our e-payment trainings, post-inauguration, we ensure that community members voice their opinions and have their concerns addressed by the Project Maji staff. This exchange helps to build trust that the money they pay digitally is exclusively set aside in a dedicated account for the upkeep of their reliable water source. We also use this opportunity to reinforce the link between dirty water and the health costs the community faces to promise a transformation through the safe water pumped by the Maji kiosk.

### Impact Assessments to Understand Water Needs

The pre-intervention surveys we implement are central to understanding affordability levels, the available water source and its impact on community health, education, economic productivity, and the safety of community women as well as the willingness to pay for safe water. The results serve as a blueprint for us to design an intervention that best suits each individual community's needs. Within 12 months of opening the taps on a kiosk, we go back to implement a post-impact assessment to quantify the impact of our work and measure progress. This serves as an opportunity to hear first-hand if we have succeeded in delivering the transformation we seek via clean water and if we have convinced our consumers to abandon hazardous water sources to choose safe water for themselves and their families.

Our Post-Impact Assessments show:

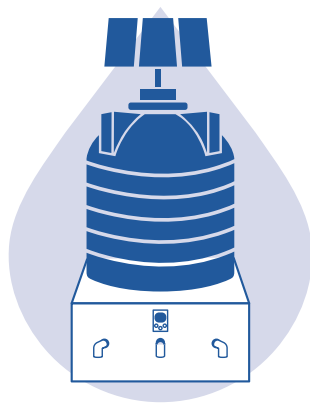
- 98% of villagers** use the Maji kiosks.
- 97% are satisfied** with the quality of water.

## THE MAJI DIFFERENCE [DETAILED IMPACT]

Ultimately, impact and progress counts. Every litre of safe water pumped from a Maji kiosk is time, energy and health preserved for a community to thrive. This is why, for us, real impact stands for value-creation through a consumer-centric sustainable rural water solution.

Critically, this is reflected in the KPI's that we monitor on a real-time basis at Project Maji. We monitor progress on all key consumer-centric indicators on a real-time basis through our live-impact dashboard that is automatically updated every time our survey teams go out to conduct interviews. The dashboard allows for evidence-based comparison of pre-and-post intervention data from Maji communities.

Scan the QR code at the end of this section to access our live impact dashboard.



Ghana  
**52**



Kenya  
**14**

**66 sites**

Total kiosk installation



Ghana  
**\$780,000**



Kenya  
**\$210,000**

**\$990,000**

Total amount invested in Ghana/Kenya sites so far (since the start of Project Maji's operations up till now)



Ghana  
**46,450**



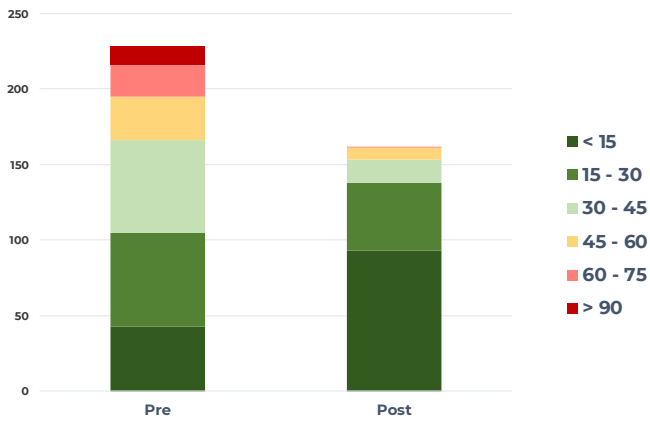
Kenya  
**14,866**

**61,316**

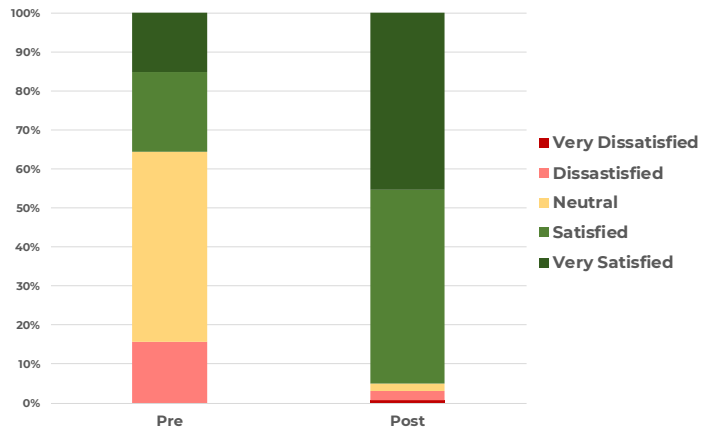
Number of Ghanaian/Kenyan people served so far (since the start of Project Maji's operations up till now)



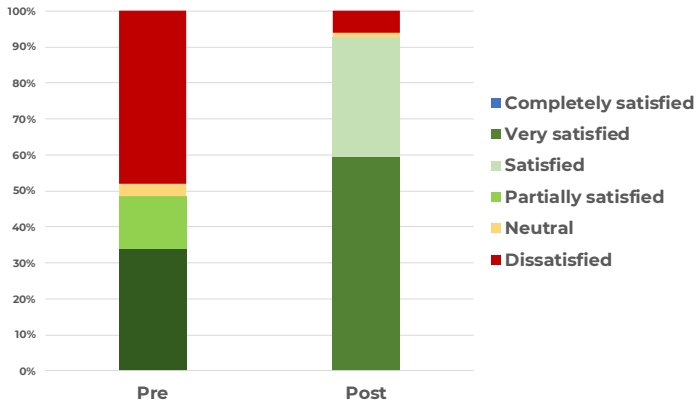
### MINUTES TO COLLECT WATER



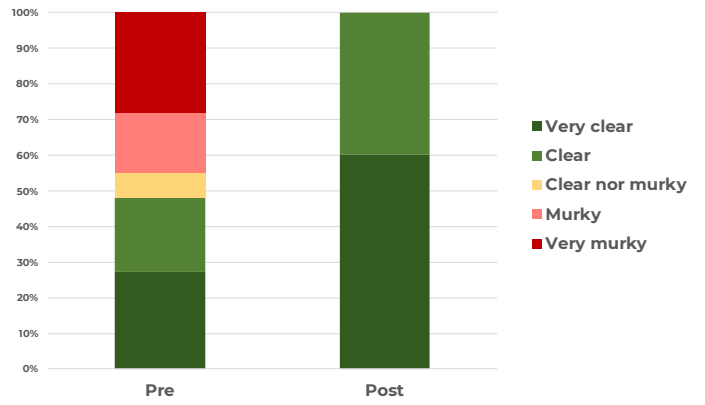
### SATISFACTION WITH WATER SOURCE



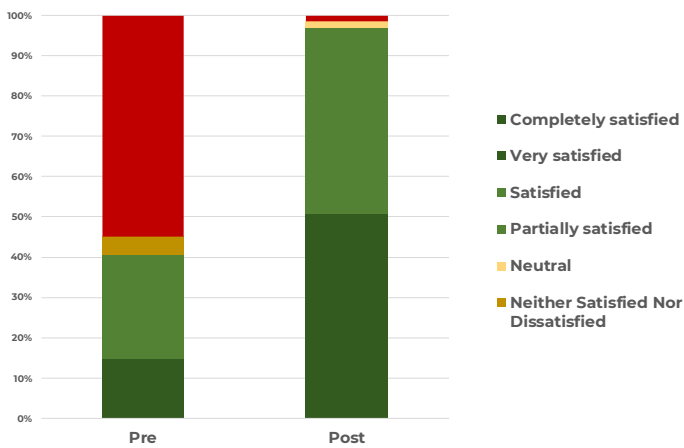
### QUALITY OF WATER



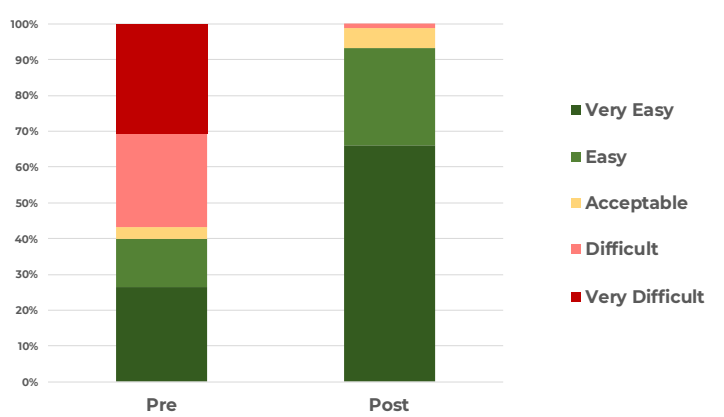
### CLARITY OF WATER



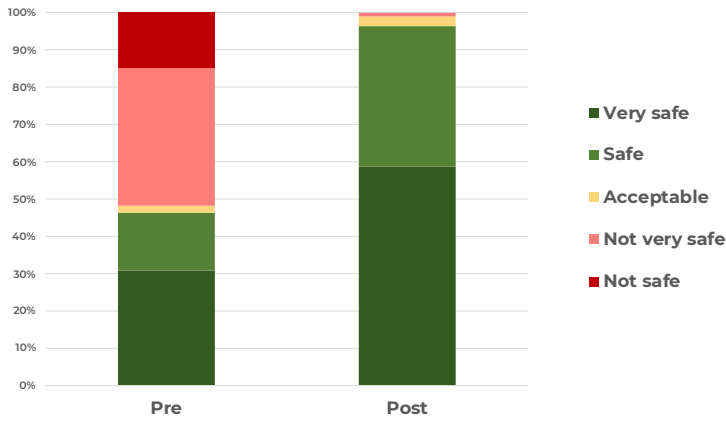
### RELIABILITY OF WATER SOURCE



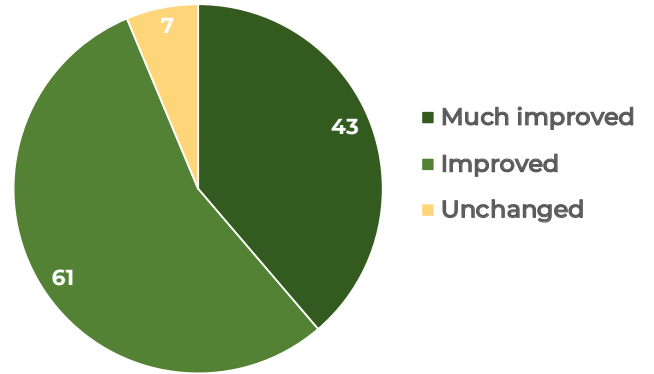
### ACCESS



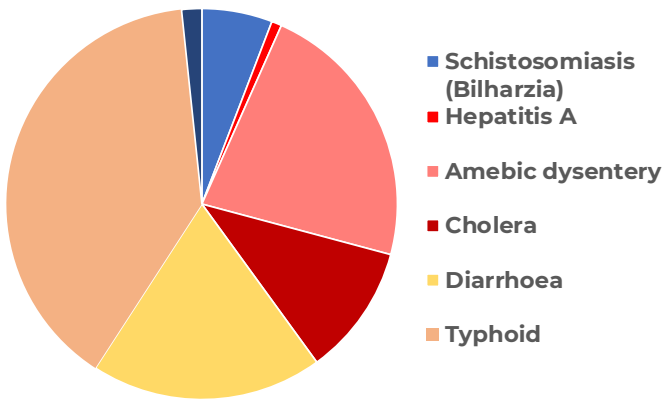
### SAFETY



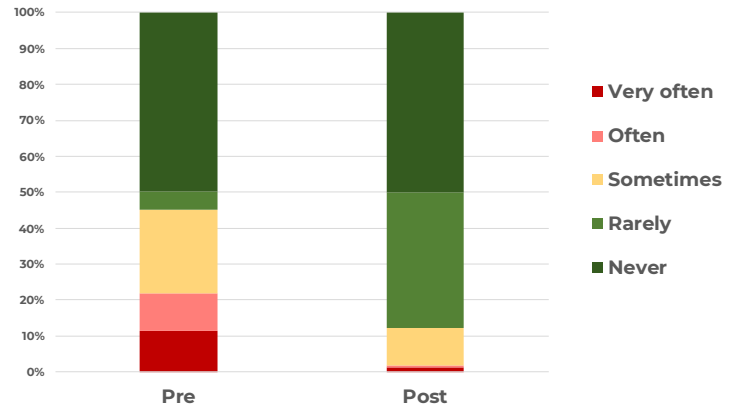
### HEALTH IMPROVEMENT



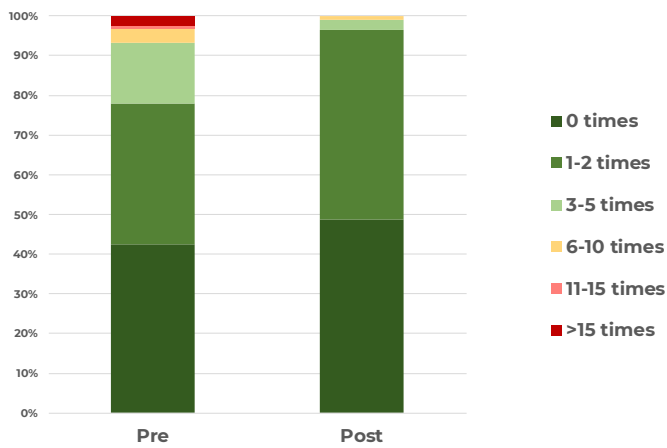
### TYPES OF WATER-BORNE DISEASES



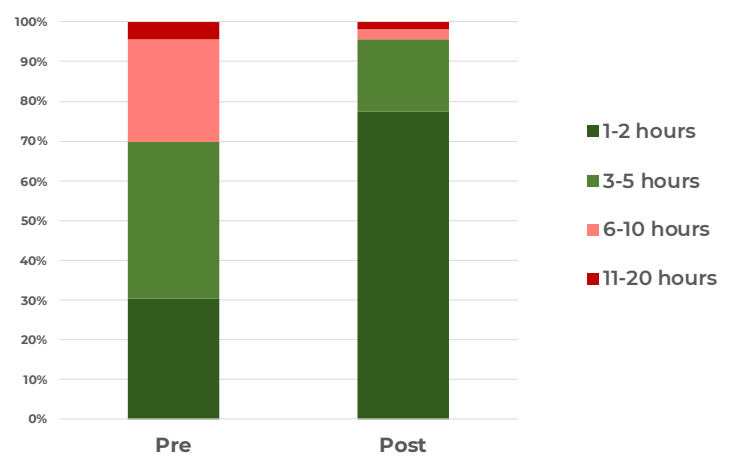
### FREQUENCY OF WATER-BORNE DISEASES



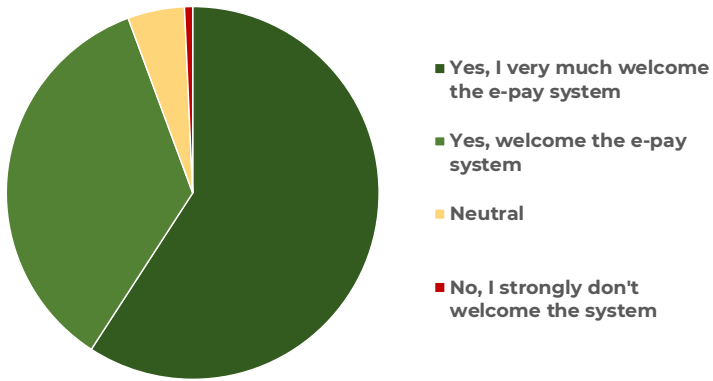
### TOTAL NUMBER OF HOSPITAL VISITS



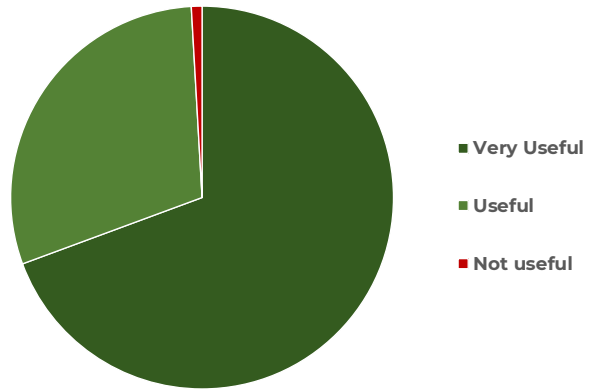
### PRODUCTIVITY LOSS



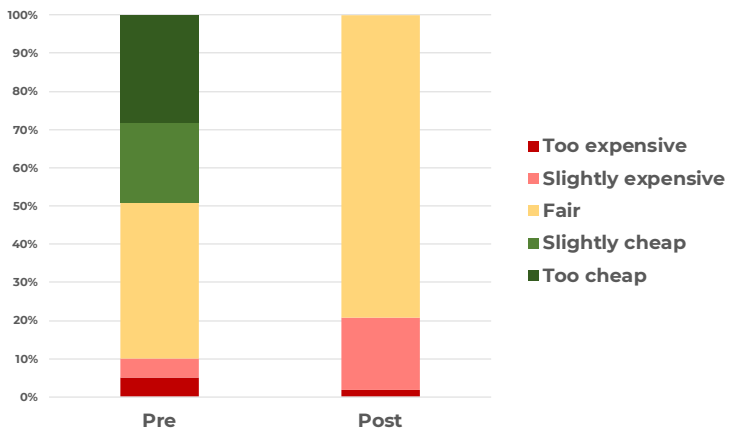
### E-PAYMENT SYSTEM OPINION (PRE)



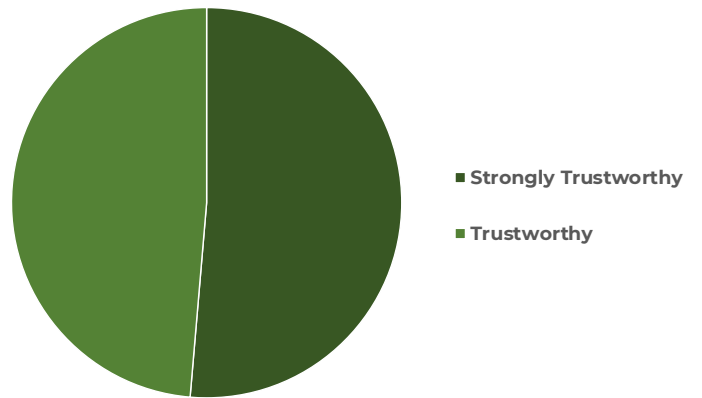
### E-PAYMENT OPINION (POST)



### MAJI PRICE OPINION



### TRUST PROJECT MAJI



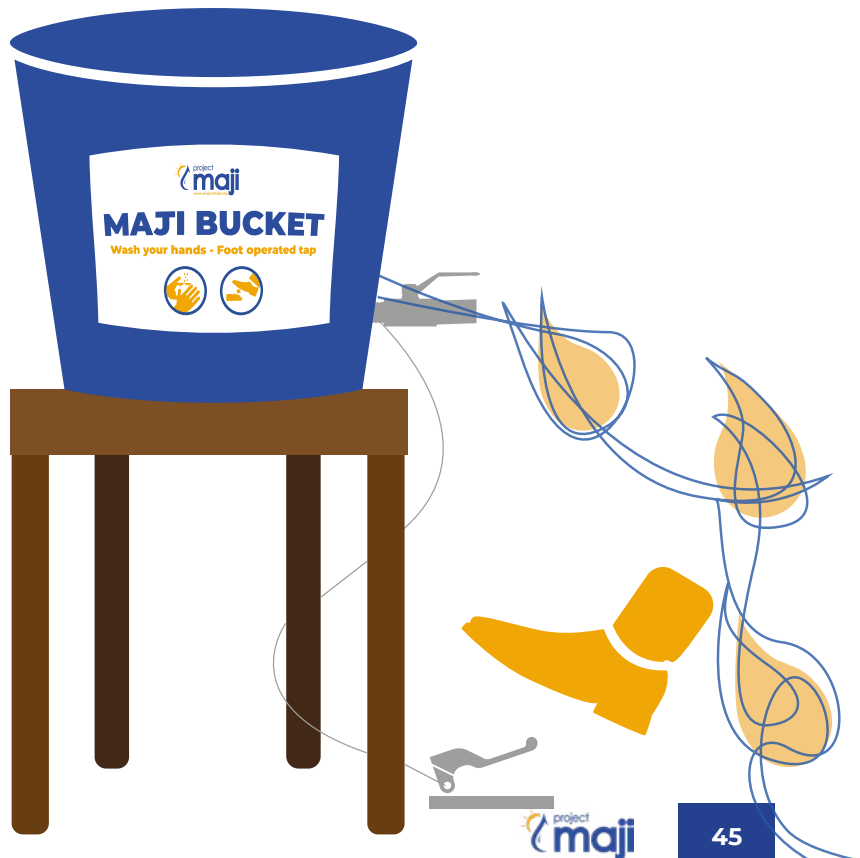
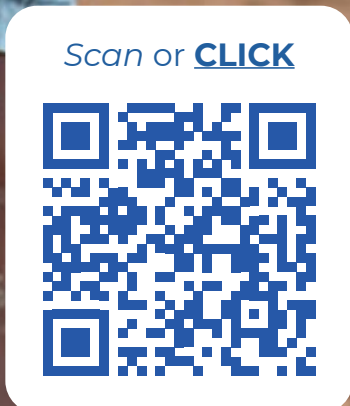
Scan or [CLICK](#)







The Maji bucket is a zero-touch handwashing station, that eliminates the need for touching taps, and successfully curbs the spread of bacteria in rural communities. The foot-operated solution is a truly Ghanaian invention made of locally available materials that allow for its easy replication and bulk production.



Scan or **CLICK**



**INNOVATION HIGHLIGHT:**

## **THE MAJI BUCKET** **A zero-touch handwashing station**

With the pandemic hitting the African continent, we knew we had to pivot in order to promote and facilitate proper handwashing in off-grid Maji communities. We quickly rolled out handwashing trainings, emphasizing this life-saving practise and distributed bars of soap. Having realised the significance of handwashing in a COVID-ridden world, beneficiary communities requested we also provide communal handwashing stations. As soon as we actioned this request, we were confronted with the real threat of the handwashing stations themselves becoming a source of contagion within the communities, by virtue of the water taps being contaminated. Hence, the invention of our uniquely designed zero-touch handwashing station – The Maji Bucket.

The reach of the Maji Buckets gained true momentum when we joined the #Sweat4Soap campaign in celebration of Global Handwashing Day. In this week-long activation, we joined hands with ultra-runner and water warrior, Mina Guli, to promote and facilitate handwashing. Every 100 km logged during the campaign raised funds for 1 Maji Bucket to be donated to the underserved. The viral campaign attracted registrants from 62 countries who logged over 68,000 kilometres. Our partner, Aqua for All, initially agreed to fund 150 Buckets (15,000km), but having witnessed the momentum of the campaign, increased the number to 375 Buckets. Project Maji matched another 75 stations (45,000km), and a total of 450 Maji Buckets were set to be produced and distributed amongst remote rural communities.



**62**  
Countries



**68,000**  
Kilometres



**75**  
Handwashing  
Stations

Photo courtesy by Kelvin Trautman

That's not all. We made sure the Maji Buckets create wins for all, even the most marginalised members of society. So, we tapped into the potential of our special colleagues at Ghana Federation of Disability Organizations (GFD). Our Ghanaian team trained PwDs in the assembly of the 450 buckets, using widely available parts such as bicycle handbrakes to create the foot pedal, providing them a source of income as well as an opportunity to save lives.

The project will be completed in the first quarter of 2021, as the buckets are being distributed in vulnerable communities across Ghana (at the time of publication). Five buckets and 10 bars of soap have been allocated for each community, supplemented by handwashing trainings that shed light on the proper use of Maji Buckets for handwashing to prevent the spread of COVID-19 and other diseases. We anticipate reaching a total of 75,000 people in this endeavour.

The beneficiary communities we have reached so far have applauded the introduction of the Maji bucket as a simple yet effective tool for protection against the virus. This is what a community elder from Konaboe Community shared with us:

*"The Maji Bucket is definitely better because you don't have to touch the tap to use it. It's good because otherwise, someone else will come and touch the same tap after washing their hands. We were also told that majority of the virus is transferred through our hands. So how would you see what you are picking up. Using the foot operated bucket is better. This one will protect us better from the virus."*

**Daniel Acquah, 62**  
Community elder

The community's trust in the Maji Bucket as an effective virus prevention tool is an important seal of approval on our COVID-19 response. One that reflects that we have succeeded in altering hygiene habits effectively shielding rural communities from the virus.



## COLLABORATION HIGHLIGHT:

# PRACTICA FOUNDATION AND PROJECT MAJI In an action-research partnership

We have embarked on an action-research partnership with PRACTICA Foundation, a non-profit consultancy organisation focused on solving rural water challenges in developing countries. The partnership is aimed at optimising rural water access by offering multiple sales points, to improve water service levels and cultivate demand and willingness to pay. A technical pilot will be undertaken to test a **sustainable safe drinking water distribution network** in an underserved community in Ghana.

To optimise the infrastructure cost, this design uniquely matches water production with demand. The system consists of a network of compact mini water kiosks, leveraging existing infrastructure such as small shops for convenient distribution. The project makes use of fit-for-purpose technologies using solar powered pressure pumps to power the network, rather than a gravity-generating water tower. On top of that, it includes a new custom designed pre-paid system with basic data monitoring capacity.

The partnership is driven by our mutual ambition to improve rural water business models and advancing the long-term sustainability of safe water provision to the most vulnerable communities. It also aims to generate tangible outcomes that will contribute to the progress of Sustainable Development Goal 6.1: access to safe water. Currently, 785 million people lack access to safe drinking water and new, innovative pathways and technologies are imperative to make real progress. This project is one such step in that direction.

**PRACTICA**  
FOUNDATION

project  
**maji**  
transforming lives



**Sunil Lalvani**  
Project Maji  
Founder and CEO,

“We are very excited to embark on this research journey, where we expect to gain valuable insights to improve our rural water provision model. Our vision and ethos are fully aligned with PRACTICA’s and we complement each other’s core strengths. The project will hugely benefit from PRACTICA’s wealth of research and engineering experience, and Project Maji’s experience and capacity implementation and community engagement. Both aspects are invaluable to drive sustainable sector change, taking essentials technical and financial steps towards efficiency.”

Critically, both parties have agreed upon disseminating learnings from the project in the form of a sector report, to be shared with relevant stakeholders within the rural water landscape. This is key in ensuring the project serves as blueprint of a smarter and more sustainable safe water distribution network for all providers, so it can be replicated and scaled in multiple countries, unlocking new finance to contribute towards SDG 6.1, universal access to safe drinking water.





جائزة الابتكار في البحث والتطوير  
المؤسسات العالمية  
المركز الثالث

**Innovative Research & Development Award  
International Institutions  
3rd Place**

## MAKING OUR MARK IN UAE

# PROJECT MAJI WINS MOHAMMED BIN RASHID AL MAKTOUN GLOBAL WATER AWARD

Declared as winners of the Global Water Award, it was an exciting start to the year 2020 for us. The award is an initiative by His Highness Sheikh Mohammed bin Rashid Al Maktoum, Prime Minister and Ruler of Dubai, to encourage research centres, individuals, and innovators around the world to find sustainable and innovative solutions to combat the global water crisis.

Supervised by Suqia or UAE Water Aid, under the umbrella of the Mohammed bin Rashid Al Maktoum Global Initiatives, the award has three main categories, the Innovative Projects Award, the Innovative Research and Development Award, and the Innovative Individual Award. Being declared the winner (3<sup>rd</sup> place) in the “Innovative Research and Development” category was a valuable seal of approval on our model, as it has enabled us to scale up and multiply our impact via the use of smart solar technologies.



مبادرات محمد بن راشد آل مكتوم العالمية  
Mohammed Bin Rashid  
Al Maktoum Global Initiatives



## PROJECT MAJI JOINS INTERNATIONAL HUMANITARIAN CITY (IHC)

In October 2020, we formalised our presence in the UAE by joining International Humanitarian City - the largest humanitarian hub in the world. This membership is central to our goal of mobilising support and strengthening our network in UAE to draw attention to the global water crisis.

Founded in 2003 by His Highness Sheikh Mohammed bin Rashid Al Maktoum, IHC is a one-of-a-kind humanitarian free-zone authority hosting UN organisations, NGOs, INGOs, commercial companies and intergovernmental organisations. Critically, for us, IHC enables its members to conduct fundraising activities in the United Arab Emirates with the partnership and support of the city to obtain government approval. Being an IHC member simply means accelerated growth for us, and more safe water for vulnerable communities.

### We Made a Splash and Won at IHC MGM Awards 2021

Our team immediately engaged with the IHC community and received immediate recognition during the first annual members global meeting 2021. Just days ahead of World Water Day 2021, the Maji Buckets won the Best Awareness Campaign Award, voted for by members of International Humanitarian City.

Expressing his gratitude over being presented with this award, our Founder and CEO, Sunil Lalvani said: "It is our great pleasure to have won this award. We are new members of the IHC, and having been declared winners amongst so many great projects is truly a matter of great pride for the entire Project Maji team."



المدينة العالمية للخدمات الإنسانية  
INTERNATIONAL HUMANITARIAN CITY

للتواصل الإنساني  
Bridging Humanity



## A CHAT WITH AMOL PARKER

### PROJECT MAJI'S EYES AND EARS IN GHANA

Overseeing our operations in Ghana as Project Director, Amol has been instrumental in our success in the West African country. His colleagues believe Amol achieves within a week, what would take months for others, and our 52 operational Ghanaian sites are truly a testament to that. From site-selection, water quality testing and community sensitisation meetings to installation, remote monitoring, and monthly reporting, we know we can count on him and his dedicated team on the ground.



### **What challenges did you face in ensuring safe water access to existing and new communities this year?**

*This has been an unusual year for the field team in Ghana. We faced a tremendous number of obstacles just trying to be present in the field and conducting business. Due to frequent lockdowns, social distancing and mobility restrictions, scouting for underserved communities, installing new sites, and maintaining existing ones all became extremely challenging.*

*Secondly, the Ghanaian government's free water mandate has set a challenging precedent in the communities. It has negatively impacted community commitment and their willingness to pay. We had worked so hard to develop this and the mandate resulted in a lot of wasted time and effort for us. Now that the directive has expired, we have seen a sharp drop in both, water consumption and revenue.*

### **What motivated you and kept you going?**

*For me, the smiles on the faces of small children who have just received clean water remains the biggest motivation. It keeps me going. The joy of knowing that by delivering clean water we have changed their lives forever and given them a much brighter future, is priceless.*

### **We crossed the 50-sites milestone in Ghana, what else do you think was our biggest achievement this year?**

*Apart from crossing the count of 50 functioning sites, we successfully installed our new standpipe design with cashless payment systems in collaboration with IFRC and Ghana Red Cross. The design is ideal for serving dispersed rural hamlets, those in the missing middle of rural communities with bigger decentralised water-distribution points and peri-urban communities. Following this successful pilot, I am extremely excited to oversee the installation of 30 more standpipes in the coming six months, in underserved communities.*

*The second biggest achievement has to be the development and distribution of the Maji Bucket. Our zero-touch handwashing station has been very well-received by*

*communities across Ghana, and I am confident it will play an effective role in protecting vulnerable communities from the virus.*

### **What does innovation mean to you?**

*Implementing simple, reliable and affordable technology to improve daily life.*

### **What does sustainability mean to you?**

*Offering reliable and fit-for-purpose solutions that can last for many years to come. For us, fit-for-purpose means fit-for-generations.*

### **What does an average workday look like? How has it changed in light of COVID-19?**

*A normal working day is full of interactions with fellow workers, site operators/ caretakers as well as meetings with our implementing partners in Ghana. I am busy planning maintenance schedules and organising emergency repairs visits and planning and coordinating ongoing installation work at new sites. This is in addition to scouting for potential sites, underserved communities and conducting hydrogeological assessments to check the water quality of the local aquifer.*

*Due to the pandemic and the lockdown that followed, a lot of activities planned had to be cancelled or rescheduled because of the strict movement and gathering restrictions. Now, my team and I, are slowly picking up momentum to catch up on our regular activities. What's changed is that we have to be extra cautious and follow stricter hygiene and social distancing practices to protect ourselves and the community members we come in contact with.*

### **What will be your top priority in terms of our operations in Ghana in 2021?**

*My number one priority is reaching out and identifying more communities that we can serve with clean and reliable water. Second, exploring and implementing new technologies to upgrade our current solutions and reaching more people with clean water. Third, strengthening existing partnerships and joining hands with more organisations to serve more underserved communities.*

# PROJECT MAJI TEAM

## Meet the team

### Management



**Sunil Lalvani**  
Founder & CEO | UAE



**Wieke de Vries**  
Director of Development  
& Partnerships  
UAE



**Tejinder Singh Lamba**  
Director of R&D &  
Production  
China



**Alberto Gimeno Sanz**  
Chief Financial Officer  
UK



**Amol Parker**  
Project Director  
Ghana



**John Hutchinson**  
Technical Consultant  
(Energy & PAYG)  
South Africa

### Operations



**Muneeza Aftab**  
Communication &  
Advocacy Officer  
UAE



**Joan Marie Tinoyan**  
Graphic Designer  
UAE



**John Otieno**  
Project Manager  
Kenya



**Ama Wilson**  
Administrative  
Assistant  
Ghana



**Maggie Kithimba**  
Administrative  
Assistant  
Kenya



**Albert Ansah Ofori**  
Technician  
Ghana



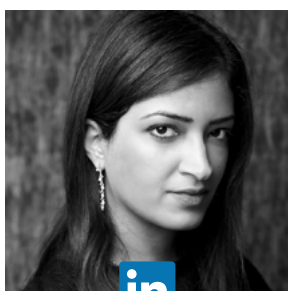
**Emmanuel Mensah**  
Technician  
Ghana



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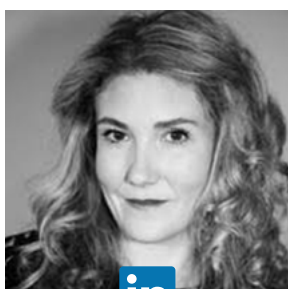
**SUNIL LALVANI**



**MUNA AL GURG**



**GORDON MUMBO**



**NICOLE MALICK**

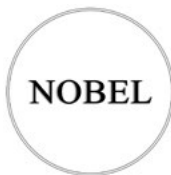


**VENU BABU**



## PARTNERSHIP OVERVIEW

# Commercial Partnerships



# Non-Profit Partnerships



# Knowledge Partnerships



# EVENTS AND ACCOLADES

INNOVATOR /

CHANGING THE PARADIGM | PROJECT MAJI FOUNDER SUNIL LALVANI

Featured in Entrepreneur Middle East Magazine

## CHANGING THE PARADIGM

PROJECT MAJI FOUNDER **SUNIL LALVANI** IS TACKLING WATER SCARCITY ACROSS RURAL SUB-SAHARAN AFRICA WITH A STRATEGIC (AND EFFECTIVE) BUSINESS APPROACH

BY YAMARA PUPU

We are all creatures of habit, especially when it comes to dealing with problems. Some people repeat conscious or unconscious patterns of creating problems, others are good at avoiding or grappling with issues that appear in their lives and businesses, and there are also a few that have unique innate instincts for solving whatever might come their way. The latter springs to my mind as I listen to Sunil Lalvani, founder of Project Maji, a Dubai-based social enterprise that deploys solar-pumping technology across sub-Saharan Africa to provide sustainable clean water access to rural communities.

Lalvani tells me that it was in 2014, when he witnessed Ghanaian children collecting dirty water from roadside puddles, that he took a career-changing (and indeed, life-changing) decision for himself. That was when, after two decades at his family's electronics business, Bhatnagar, Lalvani decided to look into why 785 million people—as per the Joint Monitoring Program for Water Supply and Sanitation by WHO and UNICEF—lack access to a basic drinking

water source. This part of the story saw us talking about the United Nations' 2030 Agenda for Sustainable Development, and particularly about Goal 6 (ending the global water crisis and reaching everyone with clean water, sanitation and hygiene) of its 17 Sustainable Development Goals (SDGs). I have learnt that the World Bank estimates that achieving the Goal 6 targets is expected to cost approximately US\$114 billion a year until 2030, while the Official

Development Assistance, which is defined by the Organisation for Economic Co-operation and Development as a government aid that promotes and specifically targets the economic development and welfare of developing countries, allocates just a small part of it—around \$13 billion a year. In any case, Lalvani assures me that “everybody in this space knows that we’re not going to get anywhere close to complete water coverage by 2030,” and I get my first hint

of his problem-solving skills, with him not mincing words when describing the issue, and explaining what needs to be done to overcome it.

“The problem, which I get very frustrated about, is that even the numbers that get thrown around are wrong,” Lalvani explains. “The UN says that we need trillions of dollars every year for the next 10 years to solve the SDGs, and while I don’t know about other SDGs, I know that the

water problem is solvable in our lifetime. For that, we need the right business models and the right funding. There is huge corruption in this space. I was in government tenders in some countries, and since our solution costs \$15,000 and not three times that, a government employee I spoke to wasn’t even interested to ask the next question, probably worried that we would be taking a part of his income away. So, the problem is not insurmountable,

it is solvable. Also, it’s not a technical problem, but purely financial, and it has to be approached in the right way.” So, how has Lalvani arrived at a potential solution? Firstly, he developed the Project Maji solar-powered water kiosk, which can be installed wherever underground water is available. It is a cost-effective, scalable, and measurable solution that pumps 5,000 liters of water per day with no electricity grid. In a nutshell, >>>



Sunil Lalvani, founder, Project Maji

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AVA DUVERNAY

PETER DIAMANDIS

*"If your dream only includes you, it's too small."*  
AVA DUVERNAY



**"I'M A BIG BELIEVER THAT IF PEOPLE PUT A FINANCIAL VALUE TO SOMETHING, THEY'RE GOING TO CARE FOR IT AND NOT WASTE IT."**  
—SUNIL LALVANI

and horrified at the same time." Lalvani got out of the vehicle that fateful day in 2014 to talk to the children. They said they lived about 110 yards up the road and had been on their daily 1.2 mile trek for their families' water when they came upon the puddle. He walked with the children to their village and learned that the handpump installed by an NGO had broken down years before, and they had neither the funding nor the expertise to repair it. Since the breakdown, the children walked more than a mile each day to retrieve water, as they had been doing before the hand pump installation.

"I felt a responsibility to do something," Lalvani explains, "I also felt that, given my business background, there was something I could do to help them."

And so, Lalvani founded Project Maji (Swahili for water), which was initially part of the corporate social responsibility efforts of his family's business. His first challenge: figuring out how to improve the centuries-old hand pump.

"The hand pump has served its purpose, but it has many weaknesses and is not an acceptable solution in today's day and age," Lalvani explains. Given his electronics experience and what he calls "a lot of hard work by a lot of people," he figured a way to harness Africa's abundant sun to power a water kiosk pumping system. These new solar-powered pumps remove all the manual effort of a hand pump, increasing capacity for the community. They are also equipped with mobile monitoring.

"With our technology, we know when they are working and when they aren't, so we can go back and fix them when necessary," adds Lalvani. As of the last count, Project Maji has provided 50,000 Ghanaians and Kenyans with sustainable access to safe drinking water. Lalvani plans to scale the program to additional countries and reach at least a million people by 2025. Achieving his goal will take, according to Lalvani, "a massive amount of work, and of

course, generous partners and donors.

One of Project Maji's core tenets is that its impact on water poverty is sustainable. Acknowledging that many good charitable models have been successful for decades, Lalvani advises that a new model is required for future success and longevity.

"Organizations that rely purely on donations and have no incentive to look after their cost base nor ongoing revenue streams are going to be challenged," says Lalvani. "Come at it from a business mindset, look at revenue streams, look at optimizing your costs, and anyone can solve that. We look at this as a sustainable social business model rather than a pure charity model."

To that end, he works with the village communities where the pumps are installed to determine an agreeable, affordable, nominal fee for the water. He charges a fee to ensure that if anything goes wrong with the pump, there is money to repair it. The other reason is more philosophical.

"I'm a big believer that if people put a financial value to something, they're going to care for it and not waste it," Lalvani explains.

Lalvani encourages other business leaders to take on humanitarian issues, saying, "Any humanitarian issue or cause can be tackled by any competent business leader." His advice is to approach any issue with a business mindset. "Look at the end beneficiary. Look at what kind of problem they have and ask yourself, what kind of solution can we offer?" ■

Karen Burkum is the senior editor of content for YPO. YPO is the global leadership community of more than 29,000 chief executives in 130 countries who are driven by the belief that the world needs better leaders.

Sunil Lalvani, featured in Real Leaders Magazine



IMPACT: PEOPLE  
Sunil Lalvani  
YPO member  
Founder

Winners of the YPO Global Impact Awards – Regional Honoree (MENA)



project  
**maji**  
 transforming lives

The Project Maji team extends a heartfelt thank you to each and every one of our supporters who chose to stand by our side in this unusual year. Despite all challenges, your support empowered us to ensure uninterrupted access to safe water across 66 sites. That is 66 rural communities, hundreds of families and thousands of men, women and children who now enjoy safe water access, all thanks to you! Thank you for choosing us to come alongside you in a mission that is transforming lives!

**Get Involved:**

If you or your organisation would like to join us in our mission to end water poverty, there are several ways you can partner to help us both achieve our goals. Our dedicated team can work with you to create a programme that supports your mission and maximises impact, proving that doing good is good for business!

If you want to get Involved, please send an email to:



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 Founder & CEO  
 Email: [sunil@projectmaji.org](mailto:sunil@projectmaji.org)



**Wieke De Vries**  
 Director Development  
 & Partnerships  
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[www.projectmaji.org](http://www.projectmaji.org)

