



Grundfos is supplying solar-ready, submersible SQFlex pumps for hundreds of boreholes in Burundi as part of an ambitious plan to provide "sustainable access to water in every community by 2028."

The project is run by the non-governmental organisation Amazi Water, which began operating in the East African country nearly 10 years ago when its founders — Robert Vanman and John Peake — decided to do something about the lack of water infrastructure. As of September 2023, Amazi Water has drilled more than 850 boreholes, which serve 2.5 million people out of the country's total population of nearly 13 million.



Robert Vanman, Chairman of the board, Amazi Water

The Situation – A 'forgotten country' in dire need of clean water access

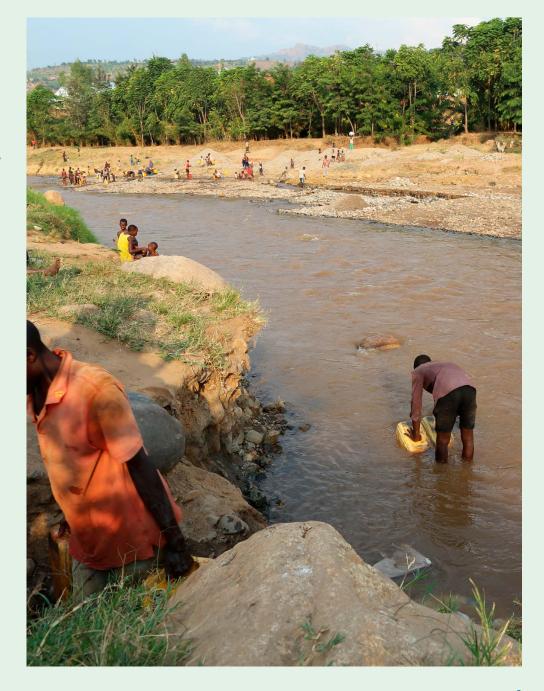
According to a survey of the country's 13 million people compiled by the Burundi government in 2019, 40% of those in rural areas did not have access to basic drinking water, and 46% lacked adequate sanitation facilities. Defecation in the open is widespread, which contributes to contamination of surface water sources and the spread of disease, such as cholera.

Burundi, with a long coastline on Lake Tanganyika — the second biggest freshwater lake in the world — has abundant surface water and groundwater. But the problem for citizens has been the lack of adequate infrastructure to treat the water from rivers and dams and make it safe, and to pump unpolluted water from aquifers and into the communities where it is needed.

Robert Vanman, chairman of the board at Amazi Water, says: "Burundi is often called the forgotten country in the water sector, because none of the major charities has operated in this country. And Amazi Water is working to help to fix the biggest problem in one of the poorest countries in the world."

Robert Vanman's co-founder at Amazi Water, John Peake, who is the executive director of the NGO, says Burundi has "exceptional" groundwater.

"The water table is rich – not everywhere – but there is a huge available supply of water under us, and it's not being tapped."



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The Solution – Grundfos makes the perfect partner

Amazi Water, which describes itself as the primary implementer of water projects in Burundi, has expanded over the past decade to comprise a team of 200 people. It operates five drilling rigs.

The NGO is engaged in an intensive programme of drilling and equipping boreholes throughout the country, which covers an area of about 26,000km². Amazi Water's preferred pump supplier is Grundfos.

John Peake says "Grundfos has developed and maintained the quality for incredible and amazing products and they are really easy to work with."

"Grundfos is a A-Z textbook of professional communication and collaboration. We partner with them because they are an effective, mobile, nimble, flexible partner that really tries to understand what our goals and needs are and provides relevant trainings, services and logistics and pricing that supports our effort," he says.

"It's a company that is not purely motivated by profits but wants to make an impact. They make durable products that work for us, and they make products that people want to use, and we find that the upfront cost of these products is highly competitive," John Peake says.

"We have no doubt that the long-term costs over three, five, 10 years and beyond will be unbeatable, and this is why we mainly use Grundfos pumps."

According to Amazi Water, a basic single hand-pump system can supply water to 1,000 people a day.

"Our preference is solar-powered, submersible pump technology with connected tanks and taps where possible. These larger, more sophisticated systems deliver much higher yields, serve double or triple the number of people and are easier to maintain," John Peake says.

"We upgrade systems where conditions allow. The upgrade may involve switching a basic hand pump to a solar or electric system; or installing a water tank or reservoir, pipes, or taps. An upgraded system can serve more people and requires less maintenance."

Robert Vanman says Amazi Water "has had the luxury of substantial internal funding."

"This has allowed us to make some long-term decisions in our investments into equipment and tools and vehicles and facilities, all of which helps us be more efficient and lowers our total overall cost."

The Amazi Water chairman notes that Burundi's population density of about 500 people per square kilometre *"is extremely dense."*

"That ensures our water projects are able to serve a large number of people, which makes the cost per person served very low."

The average depth of Amazi Water's boreholes is 65m, with the deepest going down to 120m and the shallowest 25m. The average water yield is 3m³ to 5m³ per hour, enough for 150 to 250 people, which equates to water for over 2,000 people every day.

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The Outcome – Better, healthier lives for millions of people

According to John Peake says the Burundi project started in 2014 with 40 boreholes.

"Today, September 2023, we just finished our 870th borehole and we expect that by the end of this year will have exceeded or be approaching 1,000 boreholes. More than 2,5 million people have increased access and/or first-time access to water from these systems, and over 500,000 people have at least 20 litres of water within 10 to 15 minutes of their house," says John Peake.

Referring to the goal of providing water access to everyone in the country, he continues: "We believe Burundi needs 2,000 more water systems to see this vision achieved."

One beneficiary of the Amazi Water project is 64-year-old Joseph Girukwayo.

"I have seen many things in my life because of the lack of clean water," he says. "Before we received this water well, we walked 5 km to get clean water. You can imagine an old man like me in that life. I was not able to walk the distance, so I had to pay a young man to fetch water for me. It was not easy to find the money."

"I saw some of my livestock die because of dirty water. The teacher at school sent our children home because they were late. You cannot imagine how painful it is to finally have food to cook but no clean water to cook it in."

Now, Joseph Girukwayo says, things are better. "Today I am clean, I get water near my house, I can pump water that I need, and my hygiene is good. The community is using this water to grow vegetables to feed their family. It will improve our life and health."

"I hope to live more years because of this well. The well is our treasure, and we will care for it."

Joseph Girukwayo

64-year-old local resident, Burundi

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