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Canada



Photos: Duncan McNicholl & Owen Scott

Access to Clean Water

Improving access to clean water in Malawi

28 Long and short term volunteers projects since 2006.

12 District government partners.

12 Major international development partners.

Engineers Without Borders has been working to identify and scale-up innovative approaches to improving clean water access in Malawi.

Widespread Water Failure

Chrispin Damubla's job as Water and Sanitation Officer in the district of M'belwa, Malawi is not easy. Although Chrispin leads several water projects aimed at empowering his community to access clean water, he knows that half of his community will not have access to safe water in the coming year.

In Malawi, up to 40% of all water points simply don't work.

M'belwa is not alone. In Malawi, up to 40% of all water points simply don't work. People are dying from preventable waterborne diseases, making each day a constant battle for survival in rural communities across Malawi.

To ensure that the work of strong development leaders like Crispin can reduce suffering and hardship, functioning water points are critical in Malawi.

Poor location, installation, and repair

Water infrastructure is often driven by inaccurate information about the water needs of rural communities in Malawi. Water points are not well mapped, causing wells and boreholes to be located too close to one another, or only in areas of perceived importance. Many people have been left behind. Across Malawi, families cannot safely drink or cook with the water available in their community.

Even when safe water is available, water technology often has a poor track record of sustainability. Poorly functioning wells are all too often installed, as implementing organizations do not take local variables into consideration.

When wells do break down, most rural communities do not have access to repair training or spare parts to fix the problem. It is as simple as a broken chain on a hand pump, and access to clean water for thousands of people is eliminated. It is estimated that 90% of water points fail within the first three years, standing as a physical reminder to rural Malawians of widespread development failure.

Monitoring and Maintaining Water Sources

Engineers Without Borders is creating lasting responses to water scarcity in Malawi. We are focused on testing innovative ideas that address these root problems, while scaling-up those approaches which are impactful. We are improving the ability of rural farmers, large development organizations, and district staff – like Chrispin Dambula – to keep safe water flowing through rural communities.

Monitoring water points

Mapping water points is a critical step towards improving clean water access for rural families in



In Malawi, up to 40% of all water points simply don't work.
PHOTO: Owen Scott

Malawi. Our volunteers have spent countless hours documenting the location of water points across the country, while working to better understand their functionality. To do so, we created an innovative tool to monitor the lifecycle of hand pumps, wells and boreholes. We now have a strong understanding of what happens to water points over time, and can facilitate more impactful decision-making for development partners and local government. Our monitoring tool is the most advanced of its kind in the region.

Our monitoring tool is the most advanced of its kind in the region. Because of this, two water organizations in the region have invested \$100,000 to scale-up the program in 2010. When completed, EWB will have mapped and monitored over a third of all water points in Malawi. Our work is better identifying the most vulnerable communities in Malawi, and increasing their access to safe water now – and in the future.

Building operation and maintenance

In many villages, the majority of new water points are broken. To restore safe drinking water, these communities need access to spare parts and repair training. EWB is providing knowledge, training, and research support to our partners to develop and pilot a solution to this problem. Here, EWB is adding value by exploring innovative models, and identifying opportunities to scale-up strong approaches.

EWB recently tested our approach and achieved impressive results. In partnership with InterAide, we implemented a

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system to bring training and spare part access. This will ensure that rural communities can better operate and maintain water points in the long term. With InterAide we were able to identify a good starting model, and are now seeking ways to make improvements. This is an exciting step in broad access to clean water.

The Way Forward

At EWB, we empower rural Africans to drive positive change in their lives. Our approach to water in Malawi is no different. Here, we identified root problems and piloted innovative solutions. We have not been afraid to analyze, test, fail, and start over. As a result, we have ensured that an increased number of Malawians have access to clean flowing water, while equipping rural communities with the tools to maintain it going forward.

EWB's ambitions are high in Malawi's water sector - we are aiming to decrease the number

of faulty water points from 40% to 10%. To do so, identifying innovative approaches, like water point mapping, while continuing to explore new challenges such as pump repair. We aspire to scale-up responses that are improving widespread access to clean water, like our water point monitoring tool. EWB recognizes the importance of creating long term change. With this in mind we will continue working with district staff like Chrispin Damubla, to build his ability address ongoing water challenges in his community.

With proven impact in many districts like M'mbelwa, EWB is now looking to the future where we envision widespread access to lasting sources of safe water across Malawi.



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