

Water Solutions

Water is the Plateau community's greatest physical need. The water crisis is complex and multi-faceted. There is no single, simple solution that instantly solves the whole problem. It must be addressed with patience from various angles using different approaches.

Dlo se lavi.  *Water is life.*

Over the years, we have drilled wells, dug water holes, built water cisterns, and trucked water from nearby sources. While these efforts have certainly helped, life on the Plateau still hangs in a fragile balance with minimal survival buffer. As of yet, we have hit no miraculous geyser. We must pull together our resources and initiative for alternative solutions.



Water Solutions is composed of multiple projects, each attempting to address one angle of the water problem. For more details, please read the remaining pages of the PDF document.

*Increase the survival buffer.
Donate to Water Solutions.*

Please visit www.lemuelministries.org/donate to give through our partner Extreme Response. Be sure to designate your gift "Lemuel Water Solutions."

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info@lemuelministries.org

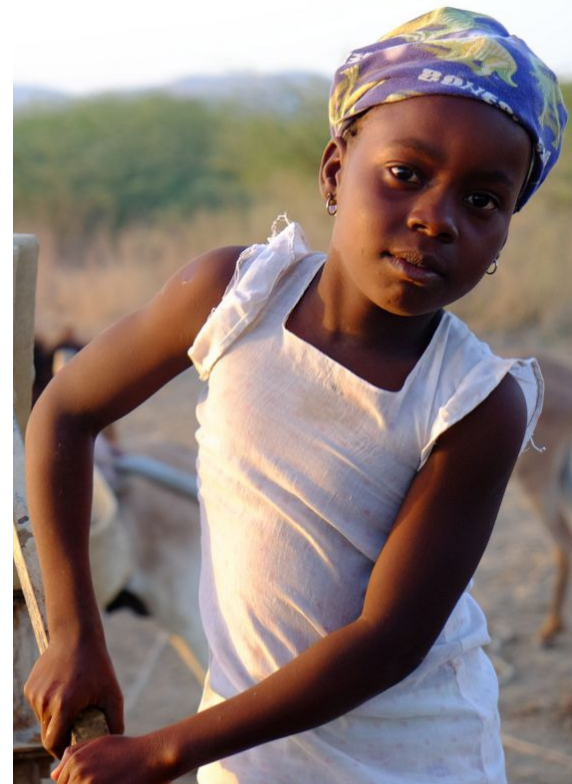
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Water is the Plateau community's single greatest physical need. The water crisis is complex and multi-faceted. There is no single, simple solution that instantly solves the whole problem. It must be addressed with patience from various angles using different approaches.

History: Life on the Plateau has revolved around water collection for generations. Less than 10-15 years ago, children were still being awakened at 2AM to ride for hours on the back of a donkey to fetch a few buckets of water before school. Two wells were dug in the area, but one was filled in by an angry landowner, and the other experienced multiple breakdowns and set-backs. Deforestation has damaged the climate and environment, causing scarce and unpredictable rainfall. People that once existed on subsistence farming have had no harvest to speak of for a long time.

What has been done already: For the past several years, Lemuel has been trucking water to the Plateau from a source about an hour away by vehicle. This has been the only source of water during many a crisis. However, the terrible, unpaved roads make the maintenance and upkeep of the water trucks very expensive. It is also highly dependent on a third party, who may at any time become unable or unwilling to provide water.

Lemuel has also initiated community projects to dig huge rainwater catchment holes. These holes have been hand dug by the men and women of our community using shovels and pick-axes, and they have proved temporary lifesavers for trees, livestock, and households when the rains stop.



In 2015, Lemuel had a hydro-geological water study done on the Plateau to determine the location of underground water sources. The results showed a very slim chance of finding any significant source of underground water in the area. In 2017, Lemuel hired a drilling company to drill for water at the top-rated locations shown on the study. Four holes were dug, and only one was moderately successful. This newest well has helped, but it has two major drawbacks: 1) it is brackish ("salty") and 2) the underground pocket refills very slowly. As a result, the well goes dry for long periods of time, especially when the water table falls lowest during severe drought.

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These endeavors have helped, but life on the Plateau still hangs in a very fragile balance with minimal survival buffer. Drilling more wells to find underground water does not appear to be an effective approach at this time. So, we must pull together our resources and initiative for alternative solutions.

Current Approaches

PARTNERSHIP WITH A LOCAL WATER SOURCE: We have the opportunity to partner in a second well located in the same area where our water trucks currently fill up. This partnership will provide us with more stable and consistent access to water, as well as a food garden irrigated by the well. The well is already dug, and we have the garden land. What remains is to purchase the generator, pump, and accessories necessary to draw the water from underground. These items must be purchased in the Dominican Republic and brought in to Haiti. The total cost will be \$35,820US. A down payment of \$3000 has already been made. (Prices reflect March 2018.)

WATER TRUCKS: It is clear that we will be trucking water, at least for years to come. Our water trucks require constant maintenance and tire replacement.

RAINWATER CATCHMENT HOLES: Even when it does not rain on the Plateau directly, rain in the mountains sometimes creates torrents of water that come rushing down old, dry riverbeds. Capturing this rainwater run-off has proven an effective strategy, and we are continuing our efforts to divert even more of this resource and make the most of our opportunities.

A BACKHOE/TRACTOR: The piece of machinery would have a huge impact on our ability to dig bigger and better water holes. It would also be indispensable in a number of other development projects. (Please see the PDF about the Tractor Project.)

A WATER FILTRATION SYSTEM: Currently, all filtered drinking water must be purchased in Gonaïves and transported to the Plateau (a rough journey of about 4-5 hours round trip). We are currently working with a donor on a local filtration system that would make clean drinking water more readily available and affordable to the people of the Plateau.