



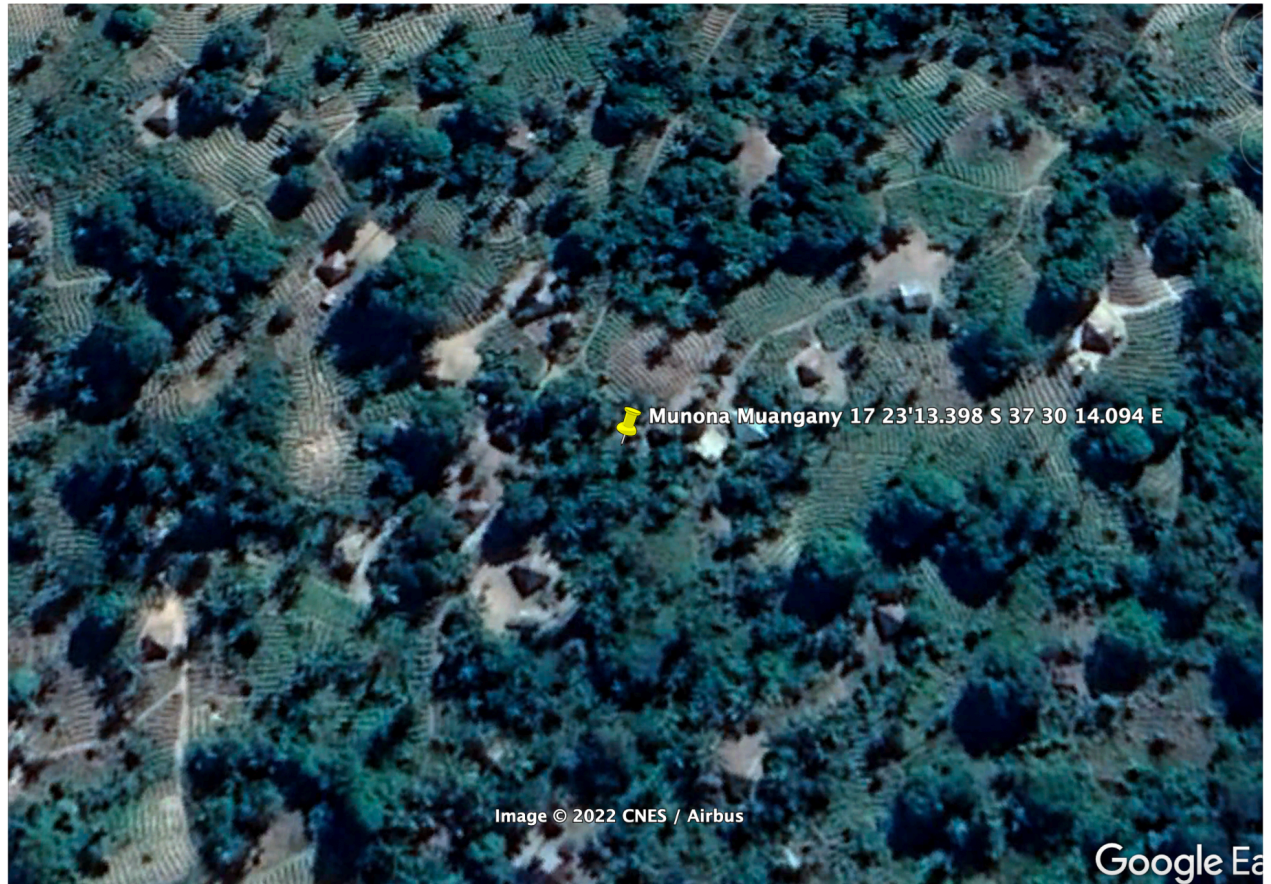
# Water Well Report *for*



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# Rotary Club of Estero Foundation INC

**You donated a well for**



## Muangany Village

**GPS COORDINATES: 17°23'13.398"S 37°30'14.094"E**

This rural village of Muangany has approximately 583 houses, that includes 497 boys, and 652 girls.

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Malaria and waterborne diseases have been rampant in this village because their main water source has been from dirty, contaminated water holes.

When those shallow holes dried up, the women and girls then traveled miles to the Licungo River, where they were always at risk from attacks by hippos and crocodiles.

The jugs were empty as they traveled *to* the river but, on the return trip, their jugs were full of dirty, contaminated water that they balanced on their heads, and babies were in their arms.





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Muangany Village's water well was constructed on May 27, 2022. The cement apron that protects the water well from contaminated surface water, was poured the same day. The Pump was installed May 30, 2022. You may be interested to know that the village provides food to feed the team while they are there.

Muangany Village established a Water Pump Committee to provide leadership and oversight to their new well and pump. The committee consists of leaders in the village who have been trained on well maintenance, management, and pump repair. Their training and ownership ensures that the well is a sustainable resource, providing clean, safe water for years to come.





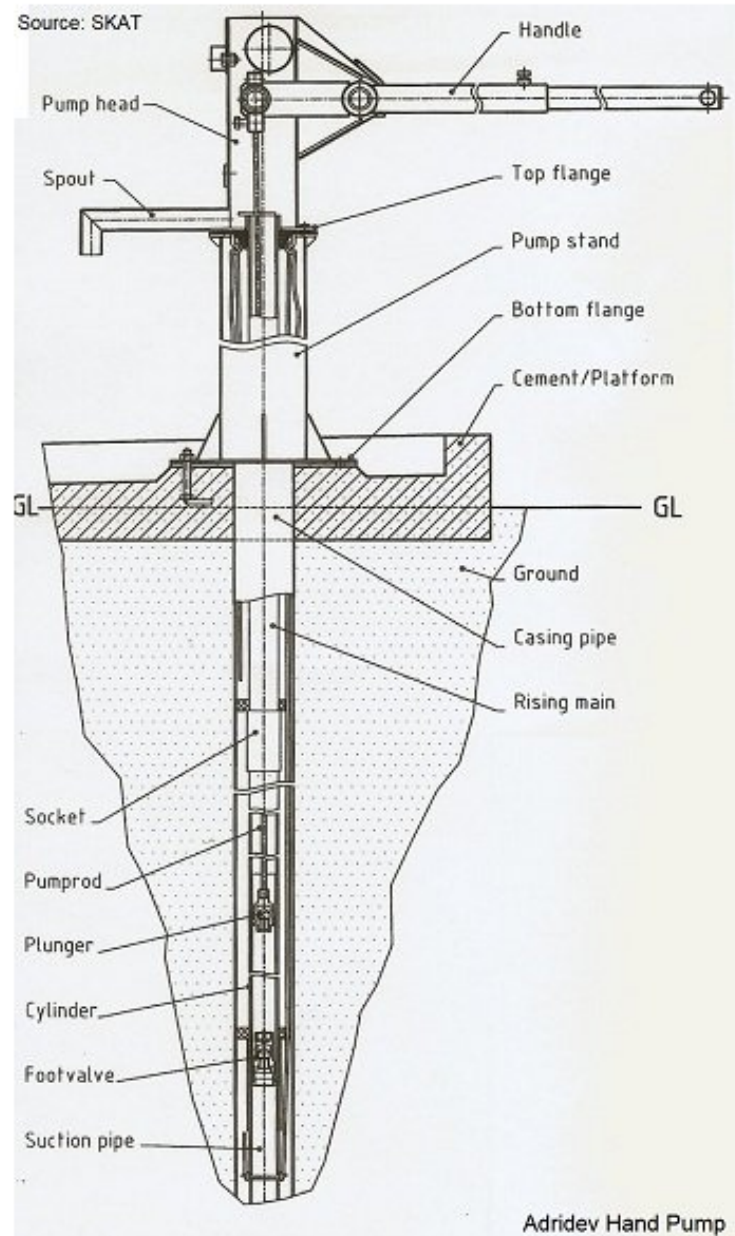
*The hand pumps that are used for water wells are Afridev hand pumps. See the description below:*

## AFRIDEV HAND PUMPS

The Afridev hand pump was designed and developed in Malawi in the early 80's and later in Kenya. From the beginning the goal was to develop a pump that was easy to install and maintain at the village level.

Developers of the pump also wanted a reliable hand water pump that could be manufactured in-country using available resources. The original ball bearing design of the rod hanger assembly and the pump lever fulcrum proved to be unreliable over the long run. Designers eventually settled on a simpler and more dependable plastic bushing design for the rod hanger and fulcrum in the pump head. Plastics research and development played an important role in the final design, providing an inexpensive and durable alternative to ball bearings.

The Afridev hand pump is a conventional lever action piston pump. It is of the open top cylinder design, allowing the pump piston, foot valve, and pump rod to be removed for maintenance without pulling the riser main.





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The pump cylinder is 50mm (2 inches) inside diameter and is brass lined.

A stainless steel-lined cylinder is available for corrosive water situations.

In the Afridev design a separate “fishing” tool is used to pull the foot valve.

The piston valve and the foot valve are of identical design, allowing the valves themselves (not the housings they are in) to be interchangeable.

This helps to reduce the cost of manufacturing and maintenance.

Afridev riser main is made of 65 mm (2 ½ inch) PVC pipe.

The pump rod is stainless steel with a hook and eye connection making it easy to connect and disconnect pump rod sections without tools. High quality plastics are used for the piston valve and foot valve and for rod hanger and fulcrum bushings.

Above-ground parts of the Afridev are galvanized steel and may be locally manufactured.

The pump handle can be extended to assist in water lifting in the case of changing water levels. Since the Afridev is an open-cylinder configuration and is therefore amenable to village level operation and maintenance (VLOM).

Afridev pumps are easy to install and maintain and require no heavy-lifting tools such as C-wrenches or tripod with block and tackle.

The standard Afridev pump is designed to operate at a depth no greater than 45 meters (150 feet).



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# Estero Rotary Club Foundation—

YOU made the water wells possible for Muangany Village. Clean, safe water is changing the lives—and *saving the lives*—of everyone in the village as well as those who come from the surrounding area.

*Instead of* walking, fetching, and carrying dirty water all day, *now* mothers and girls fetch clean, safe water right in their own village.

As a result:

- **Health and strength improves as waterborne diseases decrease.**
- **Girls have the time and energy to go to school. .**
- **Mom spends her days being more productive for her family.**
- **Water is available to grow a garden.**
- **Longevity improves.**

Thank you, [Estero Rotary Club](#), for partnering with Water4Life Mozambique. Together, we have given this village the means to have a healthier life and brighter future.

You are a great blessing!

Thank you,



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