

# Kamancheli & Mekoda Village Fact Sheet



## At a Glance

- Combined Village Population  
200, approximately
- Region and Area  
Brong Ahafo Region, Banda
- Crops  
Yams, Groundnut, Manioc, Tomato, Maize  
(primarily subsistence farming)
- Trade  
Potting, Ceramics
- Religions  
Christianity, Islam, Traditional
- Notable Geographic Landmarks  
Bui National Park, The Banda Hills, Tombe Gap

## Geographic Location



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[www.brutelabs.org/welldone](http://www.brutelabs.org/welldone)

## About Well Done

Well Done is an ongoing effort between BRUTE LABS and Pioneers-Africa to bring clean water to communities throughout rural Ghana.



## Background

Kamancheli and Mekoda are two nearby villages (approximately 5 miles apart) located in the Brong-Ahafo region of Ghana. Situated on the border between Ghana and Cote d'Ivoire, the Kamancheli and Mekoda villages are located on the outer fringes of one of the most underserved regions of the entire country. Access to the remote villages is only possible via a truck-ride through the Bui National Park, a national conservation area that is rarely visited due to its remoteness and lack of reliable infrastructure. The nearest town that offers basic services is Banda, located approximately 1.5 hours away by truck ride.

## Water Situation

Both villages lack any reliable, local water source beyond a few unprotected ponds and streams that fill with muddy, visibly contaminated water during a heavy rainfall. In the absence of this unreliable and unsafe supply, the villagers walk approximately 10 kilometers on foot to fetch water from another village in the region. This long trek is made on a daily basis during the dry season, most often by the young children and women of the village. Water related illnesses, including life-threatening diarrhea diseases among children, are common throughout both of the communities. In recent years, workers in the villages have been attempting to manually dig a well using makeshift tools and their bare hands, but have been unsuccessful at any such attempts.

## Solutions

The villages of Kamancheli and Mekoda are located in a tropical region of the country that experiences large quantities of annual rainfall, some of which seeps into the soil and eventually into the groundwater system, saturating pores in the granular soil and fractures in the underlying rock. If accessed with a properly sited and constructed well, this groundwater source could provide a safe and sustainable water supply for the basic needs of the community far into the foreseeable future. However, one potential difficulty of drilling a well in these areas is transportation of the drilling equipment. The unmaintained, dirt roads leading to the villages are in very poor condition, resulting in difficulty in access by large vehicles carrying heavy drilling equipment. If the drilling of a well is deemed infeasible due to these conditions, other potential clean water solutions exist including development of a rainwater harvesting system (in which rainwater is collected from the rooftops of village homes) or the installation of a "hand-dug" well, which though less reliable than a typical well, only requires small-scale construction equipment. One of the first steps in identifying the most appropriate solution will be a site visit by a hydrogeological and engineering expert to determine the feasibility of the different options. From this preliminary investigation, an appropriate technology can be selected, launching the overall process to bring clean water to the Kamancheli and Mekoda villages. The general process for implementing a clean water solution can be found on page 2.

While the most appropriate clean water solution (a well, rainwater harvesting system, etc.) for the Kamancheli and Mekoda villages has yet to be determined, the general cost of drilling a typical borehole is presented on page 3.

# The Process of Developing a Clean Water Solution



The general process for developing and implementing a clean water solution is sequenced in the timeline below:



## The Cost of a Clean Water Solution

The costs of a clean water project vary greatly depending upon the geographical location of the site, the required facilities, the quality of the water, and the availability of materials. The estimated cost for the construction of a typical borehole is presented below.

Hydrogeological Investigations	970
Drilling and Construction of Borehole	
PVC	1,000
Gravel	200
Fuel	1,500
EQ	1,100
Staff	200
Pumping Test	600
Water Quality Test	80
Pad Construction	1,000
Pump Supply and Installation	1,000
Caretaker Training	200
Engineering and Well Completion Report	150
<b>Total</b>	<b>\$8,000</b>