

Kiteto- the eWATER story so far

Overview:

Kiteto is one of six districts in the Manyara Region of Tanzania. It is bordered to the north by the Simanjiro District, to the east by the Tanga Region and to the south and west by the Dodoma Region.

Where it all began:

We started the journey to Kiteto on in July 2022. We arrived with our scoping and community engagement teams and were able to visit four villages over a couple of days. The community engagement team walked door to door in order to get to know the challenges the villagers are facing and to ask them, and get different opinions on, how we can make the project better. During the visit, the scoping team also had to check the water quality to confirm the water was suitable for them to use.



The challenges currently faced in Kiteto:

These are the challenges that our teams discovered on their initial visits to Kiteto:

1. People currently walk more than one kilometre to fetch water. When they get there, the water they were fetching was not safe, as animals were drinking and washing in the same water.
2. There is a lack of education about proper hygiene; people do not know how to make their water safe, or how to keep it clean.



Aluminium sulphate



Water after aluminium sulphate has been added at unknown quantities



Coal being burnt

3. Some people were using chemicals such as aluminium sulphate to try and make their water clean. However, they were unaware of the right amount to use, or how to keep it.
4. There is currently an excess of mg, ca and chloride in the water.
5. The village has a high rate of carbon emission as many people are using firewood or charcoal for cooking and as such many people are suffering from respiratory diseases from smog and air pollution.



Unprotected well

6. Many people were complaining that the pipeline was not strong enough to sustain the pressure of water and that during the rainy season the pipes burst. As a result, people are unable to have water on time and roads become impassable and make collecting water impossible because the roads have been destroyed during the rainy season.

7. The teams also visited institutions like schools, hospitals and mosques. They found that these institutions did not have water so needed to walk far to find water. They also found that students needed to take 5 litres of water to school every day. However, as each student takes water from different sources we discovered the water that they bring for school was not safe for drinking. As a result, diseases erupt and students fail to attend

school as normal, so the performance and attendance of students becomes low due to dirty water and subsequent illness as well as the time taken to walk the distance to sources of water.



Students collecting water

8. When the teams visited a clinic and spoke to doctors, they said 80% of patients who attend hospital have water borne disease like typhoid, UTI, Amoeba, diarrhoea etc

eWATER suggestions:

Following the scoping and engagement exercises, eWATER proposes the following suggestions:

1. We will lab test the water to ensure it is safe and clean.
2. Consider the price of water and charge a fee that is affordable to all sectors, but adequate to ensure it covers any maintenance costs and guarantees 24/7 flow.
3. We should educate people and host seminars about proper hygiene, and how to keep water clean.
4. We need good infrastructure (substantial pipes, for example) to ensure constant, consistent flow.
5. Everyone and all institutions require safe water 24/7 and the taps need to be placed to service all of them.



The eWATER engagement team

eWATER recommendations:

RUWASA results show that treatment is required. Our recommendation is for reverse osmosis or we can drill another borehole. With a new borehole, we can dilute the concentration of magnesium and calcium in the water.

eWATER needs to install our Smart Taps in Kiteto as soon as possible because it is in dire need of clean water. Not only do we have the ability to install the Smart Taps required, but we have experience and knowledge to deal with the challenges faced by Kiteto.