Before the clean water starts flowing, a lot of planning and preparation goes into a new well! Follow these steps to learn how your donation transforms into fresh water in one of the poorest countries in the world:

1. **CHOOSE THE LOCATION**
   Through the Baseline Study results, drone imagery and geologist studies, we determine the village’s water needs, where the pump will be most useful and what existing water sources they may have access to.

2. **PICK THE PUMP**
   The most common manual pump is a handpump, but manual pumps and solar-powered pumps are often used in tandem to provide complete access to a certain region.

   **HANDPUMP**
   Servicing around 250 people, these pumps are either hand OR foot-powered, depending on the situation. An installed manual pump costs approximately $18,000.

   **SOLAR-POWERED PUMP**
   Harnessing the power of the sun, these pumps store 6,000 gallons of water in a large tower. The clean water then flows through the pipes where villagers can access the water from a tap stand. A solar-powered pump services around 1,600 people and costs approximately $60,000.

3. **INFORM THE COMMUNITY**
   Next, our team conducts multiple training sessions to teach the community about pump management and proper sanitation. Instructions on hand washing, not letting animals use the area as a restroom, etc. are all important lessons for people who have never had access to clean water!

4. **DRILL THE BOREHOLE**
   By using a drill rig, the borehole is drilled and then tested to determine how much water the pump can offer the community. The depth of the borehole completely depends on the location. For solar-powered pump systems, before work begins, our team designs the system for the specific community before installing the pumps.

5. **ENCELACE THE PUMP**
   We then construct the infrastructure around the pump which consists of a drainage system, wall enclosure and concrete platform to keep the pump operational. As you can imagine, the kids love watching this part of the process!

6. **INSTALL THE PUMP**
   Depending on the type of pump chosen, we install either a foot, arm or solar-powered pump on top of the concrete foundation. The solar pump also includes a tank where the water will be stored for easy access.

7. **TEST THE QUALITY**
   Once the well is pumping out fresh water, we send a sample to a national laboratory to ensure the quality is clean enough to drink! For solar-powered pump systems, chlorine is injected, as well.

Let’s celebrate!
Now that your pump is up and running, our maintenance team stops by for regular visits to ensure the community continues to have access to life giving water!