Mboni ya Vijana
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# BOREHOLE DRILLING, ROPE HAND PUMP MANUFACTURING AND INSTALLATION PROCESSES


**Summaries and Specification**

Mboni ya Vijana Group (MVG) adapted local technology for water surveying, borehole drilling, rope hand pump manufacturing and installation for communities use. The technology enables communities to access clean water despite that the climate change is minimizing ability of many communities to access to rivers and streams water. The technology is that better compared to water harvesting which provides water for few days after rain season has gone. Borehole enables the community to access to water throughout the year with no risk to fuels and environmental deterioration and furthermore it is cost effective.

**Specifications**

i. Drilling Method: smashing by sharpened local manufactured set and bits, supported by peoples' efforts to percolate under earth surface,
ii. Borehole Diameter: Up to 6 Inches radius but inserted with 3 to 4 inches PVC casing of class B, C or D with filters,
iii. Drilling Duration: Depends on the challenges encountered however, maximum days for drilling and construction are 21,
iv. Borehole Depth Maximum: The technology can go up to 30 meters (90 feet) under earth,
v. Pump Type: Rope Hand Pump or Submersible electronic pumps. For electronic submersible pumps we recommend for 0.5 – 1.0HP to be installed,
vi. Pumping Method: Spinning by hand for the rope hand pump (best and cheep in off grid communities),
vii. Efficiency: Capable of producing 20 Litres in a minute and children can use it (Rope hand pump),
viii. Repairing and replacing: Easy and simple to repair and replace by anyone trained to do it in the locality.

**Activities and Processes**

i. Communication and consultation with communities and local government authorities,
ii. Surveying and selection of the site for drilling,
iii. Preparation of equipment and other required facilities,
iv. Drilling works,
v. Rope hand pump manufacturing,
vi. Rope hand pump installation and borehole base construction,
vii. Water sample to local authority for quality test, and,
viii. Handling the borehole to the community or customer.

**Post Completion Activities**

i. Train communities or customers how to best use of the borehole water and repair it when it gets problems,
ii. Follow up and seeking for the feedback from the community about the borehole, and,
iii. Manufactures and supplies some parts those shall be requiring replacement.

**WE GIVE HAPPINESS AND WORKING EFFICIENCY TO THE SOCIETY BY GIVING WATER TO IT**

**SUPPORT US**

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