SMARTechs
Simple, Market based, Affordable, Repairable Techs. Innovative, low cost WASH technologies that can be produced locally

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Technologies

- Wells, drilling
- Pumps
- Storage/ rainwater harvesting
- Irrigation
- Household water treatment
- Sanitation/ hygiene
Hand dug wells

- Small diameter wells. (1.2m 80% less than 0.9 m)
- Fresh air with well ventilator
Well reducer rings
Reducing the top diameter of a well to install a well cover and a pump
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Prefabricated Well cover
Can be placed on a well reducer ring
Underlining
Deepening a Hand dug well from top down
No danger of walls collapsing
Tube bailer
A way to make hand dug wells deeper from the top
No need to go in the well
No danger of collapsing
Manual drilling of Tube wells

SHIPO method

Combination of sludging, percussion, jetting

Wells to 50 meters deep.

Cost 500-1500 US$ incl pump
Manual drilling

Mzuzu method

Combination of sludging, percussion, jetting

Wells to 50 meters deep.

Cost 500-1500 US$ incl pump
Lifting devices

Windlass

Avoid the bucket touching the ground

Close well
Rope pump
SHIPO model 1
For dug and tube wells 5 to 35 m deep
Cost 90-130 US$ off workidshop
Rope pump
SHIPO model 2, 3
For dug and tube wells 5 to 35 m deep
Cost 50-130 US$ off workshop
Rope pump
SHIPO model 4
For tube wells 5 to 35 m deep
Cost 40-80 US$, off workshop
Canzee pump
EMAS pump
Emas can pump up to 20 m high
For open and tube wells 5 to 35 m deep
Cost 40-60 US$ off workshop
Treadle pump
Moneymaker
Suction pump, max depth 7 metre
Mainly for irrigation
Solar Rope pump
Wind pump
Engine pumps
Max. suction depth 7 metres
Increased with a canal
Water storage tanks

Wire-brick cement tanks

Materials: bricks, wire, cement

Volumes: 1 to 50 cubic metres

Cost: 20-30 US$ per cubic metre
Rainwater harvesting in the ground
Tube recharge
Storing from roof or ground infiltration near dry wells
Irrigation
Reducing the top diameter of a well to install a well cover and a pump
Household water treatment
Reducing the top diameter of a well to install a well cover and a pump
Well reducer rings
Reducing the top diameter of a well to install a well cover and a pump
Sanitation
Corbelled latrines
Zero cement, only bricks
Sanitation. Latrine slabs
SaTopan seat
Plastic bowl with a valve
Flush with 0.5 litre water
Information

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