



Far Left: Bamboo grows prolifically in Kwale.

Left: Neftali and Suleileman construct the bamboo gutter test rig.

Below Left and Right: Details of the bamboo guttering system.



Water Group 2 'Kwale Bamboo Guttering':

The majority of domestic buildings in the village make use of 'Makuti' thatched roofing which has a good rate of water run-off, but this water is seldom harvested.

This group settled upon a simple innovation; to utilise bamboo which grows in abundance across the region to fabricate a gutter and drainage system to channel the rain water run-off into storage.

It was found that only dried bamboo could be used as this held it's shape when split.

Whilst the guttering was highly successful in both simulated and actual rain tests, the water collected had a red stain as a result of the thatch roof.

It is believed that the staining is not toxic and could be eradicated with post-process filtration.

Water Group 2, 'Kwale Bamboo Guttering System'

- A rain water harvesting system for pitched roofs.
- Proven suitable for Makuti thatch roofs.
- Simple construction of bamboo and sesol twine.
- Bees Wax can be applied to improve water resistance.
- Freely appropriated from locally harvested bamboo.
- Red water stain can be filtered via a natural post-process (under development).

