

# Waterforall Africa

Scottish Registered Charity 37360

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## Introduction

Jim Rae, Waterforall Africa's engineering consultant, has just returned from Kenya and Malawi. Wherever he took safety tests from borehole, reservoir or spring water it was always found to be contaminated. In Scotland a reading of 10 is the accepted minimum standard and anything over 20 is considered unfit for human consumption and will cause sickness and diarrhoea leading to death in many instances. Readings in Kenya and Malawi varied from 28.5 to over 100.

## Sanitation issues

Common problems encountered were; shared use of water for washing, drinking, and animals; use of dirty buckets to carry water; no barrier around the boreholes allowing animals to defecate; close proximity of heavily manured cash crop fields; the ever present and nearby pit latrine soak-aways.

## STAG installations

4 STAG filters were installed in rural villages in Southern Malawi in areas where they will be severely tested and are most needed. Magaleta (pictured below) is where Jim had found the elders and children dying through drinking contaminated water some 2 years previously and where he had vowed to return with a solution. Chagwawudyo village was chosen because of a cholera outbreak last year. Both these villages are in Neno District. Mwalija village in Lower Shire was selected because of known high contamination levels. Borehole and post STAG treatment water test readings were:

<b>Magaleta</b>	28.5; post STAG 4
<b>Chagwawudyo</b>	47.5; post STAG 4
<b>Mwalija 1</b>	38.0; post STAG 0
<b>Mwalija 2</b>	43.0; post STAG 2



Villagers in Magaleta using the STAG unit

## Monitoring activities

Monitoring systems have been established to measure and compare health, filter usage and operational issues. Presently trials are being carried out in Malawi by the Dept. of Water Resources in Blantyre and further tests will be carried out at Blantyre Polytechnic under the leadership of Prof. Victor Chipofya. We willingly accepted this request and are confident of the results as the system has already been exhaustively tested at the Glasgow Scientific Laboratory and met the highest standards available in the UK. Once testing is complete this 5<sup>th</sup> filter will be installed in Katemalinga village, also in Lower Shire. It should be noted that our units could be used next to any water source.

## Next steps

Our units have had some remarkable results in the field so far drawing attention from high level Government and water ministry officials. We return in November to analyse and assess the results further and to speak to the government. We have already been approached to appear on national television. During the following year we hope to establish a factory in Malawi to create employment and to increase skill levels to ensure the sustainability of our project.

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