

# AQUA CLARA INTERNATIONAL

PRESENTER: JOHN M. NYAGWENCHA



# Biography and Theme Introduction

- ◆ **Biographical Information:** John Nyagwencha has been working as the Operations Manager for a small Christian NGO called Aqua Clara International since 2011. As part of his work, he trains members of the community to manufacture and sell WASH products including Biosand filters and essentially build businesses that can supplement their income. He also oversees Community Health Promoters who carry out monitoring as well as WASH-related training in homes and schools. John is completing a Master of Science degree in Environmental Legislation and Management from Jomo Kenyatta University.
- ◆ **Theme:** Water filtration methods including use of Biosand Filters and Hollow Fiber Membrane filters Aqua Clara's entrepreneurial approach to providing safe water for all communities Training for other organization's to replicate the BSF and HF filters for their organization. Aqua Clara International (ACI) has been working in Kenya since 2008. Through its program, over 3,000 households have gained access to safe drinking water. ACI works by training local people to make effective, affordable water, sanitation and hygiene (WASH) products emphasizing the importance of 'entrepreneurs' and LOCAL revenue generating products...at an affordable cost.

# Background

- 💧 Aqua Clara International (ACI) is a non-profit organization headquartered in the USA and operating in Kenya as Aqua Clara Kenya since 2009.
- 💧 We are focused on empowering communities to meet their clean water needs by using a partnership-based, entrepreneurial model.
- 💧 ACI is a completely locally-driven and sustainable business.

# Aqua Clara Trainings

- 💧 Aqua Clara desires to support your organization in providing inexpensive water filtration programs, revenue generating programs, and improved health and hygiene education.
- 💧 We customize our trainings to fit your organizations specific needs and provide you with the necessary tools to build and install your own water filtration products.

# Community Development Entrepreneurs (CDEs)

- The CDE operates a small ACI business and is responsible for social marketing, constructing and selling water and hygiene products
- These individuals are not paid a salary, but receive a small profit from each of the items sold.
- They drive the success of their business.
- Make a profit of between \$2 and \$4 from each filter sale

# Community Health Promoters (CHPs)

- 💧 CHPs are women recruited from the local community to help promote good WASH practice alongside the products for sale.
- 💧 One of the main roles of the CHPs is to make household visits within 30 days after purchase of the Biosand or Membrane filters to check on construction standards, end user knowledge of filter use and safe water storage.
- 💧 They also use this opportunity to train on simple hygiene and sanitation improvements.
- 💧 Are paid between \$1 and \$2 for each household visit.



# Biosand Filter Construction



- ◆ Materials used are locally available
- ◆ Local people are trained on how to make, maintain and sell Biosand Filters
- ◆ They make a small profit from each sale
- ◆ Materials used:
  - ◆ 75L plastic container
  - ◆ PVC pipe (1/2 inch) and PVC elbow and spout
  - ◆ Ballast (1/4 inch)
  - ◆ Fine Sand
  - ◆ Diffuser Bucket

# Biosand Filter Operation



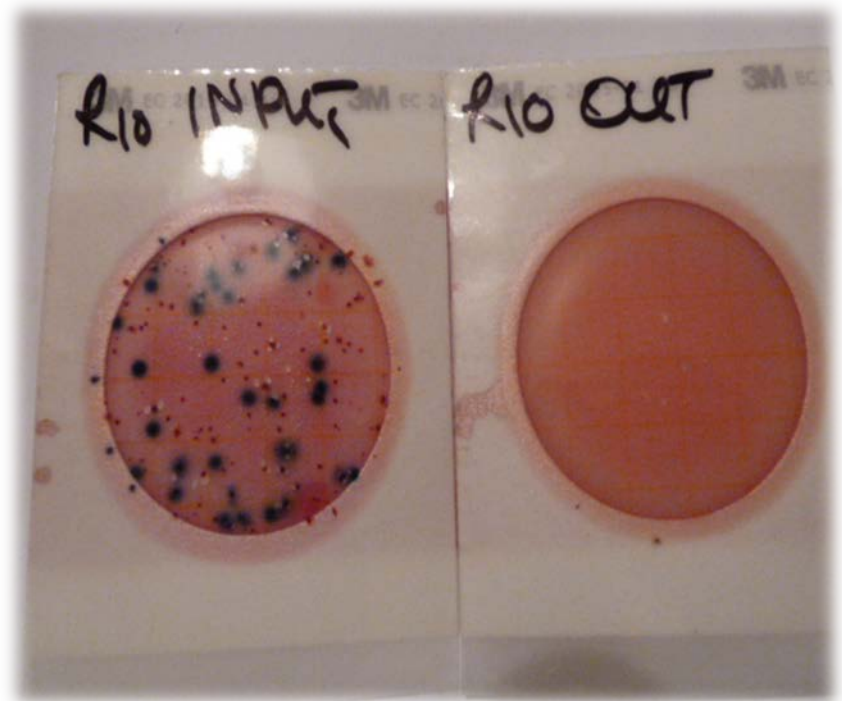
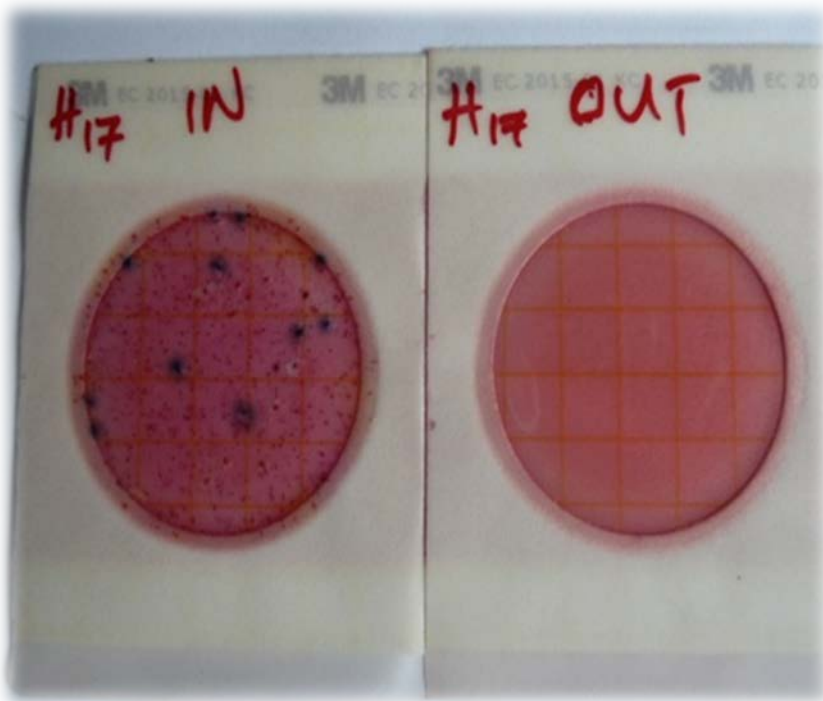
- Produces 40-60 Liters of safe and clear drinking water every day
- Has a Lifespan of 10 years and very minimal maintenance is required
- Ideal for use in remote areas with turbid water sources
- Uses Four Mechanisms to purify Water
  - Biological Layer/Predation
  - Mechanical Trapping
  - Adsorption/Sticking
  - Natural Death



# Biosand Filter



# Water Quality Testing





# Material Preparation



# CDE Meeting



# Training Costs

- 💧 Cost of Training: \$ 150 per person for a 5 day training
  - 💧 Minimum of 5 trainees
  - 💧 Client to host training and meet all training costs
- 💧 Average cost of materials per filter \$ 20
  - 💧 We recommend 5 filter installations as part of training



# Questions and Comments