



## MALAWI AIDS DRINKING WATER PROJECT

### Project Objectives:

- INCREASE THE LONGEVITY AND QUALITY OF LIFE OF AIDS PATIENTS AT EACH PROJECT LOCATION BY ASSURING DAILY SUPPLIES OF SAFE DRINKING WATER.
- DEMONSTRATE TO AIDS CAREGIVERS, LOCAL LEADERS, AND TO THE BROADER COMMUNITY THE IMPORTANCE OF UNCONTAMINATED DRINKING WATER FOR STABILIZING THE HEALTH OF THOSE WITH AIDS.
- LEARN WHICH WATER PURIFICATION SYSTEMS OPERATE MOST EFFECTIVELY AND MOST ECONOMICALLY IN LOCAL CONDITIONS AND SHOWCASE SUCCESSFUL SYSTEMS TO ALL OTHER AIDS CAREGIVERS THROUGHOUT AFRICA.
- UTILIZE LOCAL INTEREST AND PARTICIPATION IN THE DRINKING WATER PROJECT TO SECURE THE AVAILABILITY OF ARV DRUGS FOR ALL WHO NEED THEM IN THE PROJECT AREA.

### Background



The HIV/AIDS epidemic in Africa is frightening in its proportions and impacts. The United Nations estimates sixty percent of the world's HIV infected population live in Sub-Saharan Africa, an area with about 10% of the world's population. The current 26 million cases of HIV/AIDS in the region are expected to grow each year by 3 million new cases. Some 12 million children in these countries have been orphaned by AIDS.

Those who care for people with AIDS report that dysentery is a common cause of death. Dysentery can be a symptom of AIDS, but it is also clear from a seminal study by *Doctors without Frontiers* that lethal dysentery is conveyed to AIDS patients by drinking water. The depleted immune systems of AIDS patients are so much more vulnerable to waterborne bacteria and viruses than are those of healthier individuals who might suffer only temporary discomfort or disability.

The Malawi AIDS Drinking Water project will install water treatment systems that block sources of dysentery that arrive through drinking water and thereby quickly impact the health of AIDS patients. Small-scale drinking water purification systems will be established at twenty AIDS home care locations in Malawi, and training will be conducted on their operation. Monitoring at each site will proceed to learn which systems operate most effectively and most economically.

The water treatment systems which prove most durable and economical to operate will be showcased to all other AIDS caregivers throughout Africa.

### **Project Steps**

1. **Conduct January 2007 field work to select project sites.** – A January field trip by SWI Executive Director, Larry Siegel, consolidated project plans with Malawi project sponsor, the Rotary Club of Lilongwe, and identified prospective locations for installation of water purification systems. A Project Coordinator was hired, and interviews and water testing were completed at potential project sites.  
**Date Completed: January 24, 2007**
  
2. **Select initial locations and begin project installation.** – Four locations have been selected to serve as models to reflect differing water supply and geographic considerations with the expectation that different solutions will be required for some of them. Potable water systems will be installed in three family homes and at a clinic where AIDS patients come for weekly check-ups.  
**Date Completed: January 24, 2007**
  
3. **Prepare installation plans for remaining project systems.** – Based on the results of the four model project sites, system plans will be created for the remaining 16 locations and components ordered for installation of those systems.  
**Expected Completion Date: May 1, 2007**
  
4. **Complete Installation of remaining 15 project systems.** – Under the management of the Project Coordinator and the oversight of the local Project Team, the remaining 16 potable water systems will be installed.  
**Expected Completion Date: November 1, 2007**
  
5. **Conduct survey of user satisfaction and system operation.** - The Project Coordinator will make weekly visits to each project location during the first six months of operation of the installed potable water system, and SWI will make a field visit at the six month juncture. These visits will observe how well the water treatment systems are working, how well they are being maintained, and the level of customer satisfaction with each water system. A formal survey will be conducted by the Project Coordinator after six months of system operation. The survey results will be used for the final project report as well as to convey project successes and failures to interested local and international agencies.  
**Completion Date: May 1, 2008**

Attachment

- Proposed Project Systems

# MALAWI AIDS DRINKING WATER PROJECT PROPOSED PROJECT SYSTEMS

## 1. SAND FILTER



## 2. SOLAR PASTERIZATION



## 3. RAINWATER STORAGE



## 4. CERAMIC CANDLE FILTER

