

# Songea Well Installations



## CHAPTER

Oregon Institute Of Technology Chapter

## PROJECT TYPE(S)

Water Supply

## PROJECT ADOPTION DATE

November 2008

## PROJECT PHASE

Implementation

## DIRECTLY AFFECTS

800

## INDIRECTLY AFFECTS

25000

## FUNDS NEEDED

\$



## THE NEED

The village of Hanga is in very short supply of clean drinking water. Water for the Hanga Abbey and village is supplied by gravity-fed systems diverting surface water from two different sources. Many health problems stem from these highly-contaminated surface water sources. Waterborne diseases, primarily diarrhea, pose a significant health risk to the communities as the water is not only used for drinking, but also for cooking and bathing. While water is readily available, filtration is required to ensure a clean water supply that is safe for consumption.

### **About Engineers Without Borders USA**

EWB-USA is a nonprofit humanitarian organization established to support community-driven development programs worldwide through partnerships that design and implement sustainable engineering projects. Over 12,000 EWB-USA members, comprised of professional and student engineers or other disciplines, work with local communities and NGOs in over 45 developing countries around the world on projects such as water, renewable energy, sanitation and more. EWB-USA has touched the lives of more than one million people. For more information visit [www.ewb-usa.org](http://www.ewb-usa.org)

For more information about this particular project please, call: 907-317-5575

## PROJECT SCOPE

The OIT-EWB student chapter is designing and constructing a Slow Sand Filter on the Richipi water transmission line to remove sediments and biological contaminants from this domestic water supply. This pilot system will provide clean water to 800 people, while future expansions and the follow-on Mingi system may serve over 15,000 people. Richipi Phase 1 involved the 2011 construction of the filter tank foundation slab, while Phase 2 will build the tank walls in 2012. Design refinements are ongoing for Phase 3, which will complete the project with filter media, piping and cover.

## FUTURE INVOLVEMENT

Future implementation efforts will include educating and training village officials about operating, maintaining and testing the Richipi filter system, and designing and constructing the Mingi filter system. OIT-EWB will evaluate other surface and ground water sources for villages in the surrounding region, continuing with our mission to establish sustainable clean water sources for the village of Hanga and environs. Providing engineering support and services, the OIT-EWB Student Chapter is developing a sense of sustainability and ownership in the villages in this Ruvuma region of Tanzania.