

Sustainable Point-Of-Use Technologies (SPOUT) Institute

One out of every six of our fellow human beings lacks access to safe drinking water. As a result, millions of our children die each year from completely preventable diseases. Unfortunately, the tools and strategies that effectively provide safe water in industrialized regions like the United States are generally not transferable to economically developing regions within Africa, Latin America, or Asia. The rapid implementation of sustainable, effective water poverty solutions is desperately needed.

SPOUT is a non-profit, applied research consultancy whose mission is to empower residents of economically developing regions to obtain sustainable access to safe drinking water. SPOUT executes cutting-edge research, design, and educational programs relating to point-of-use water treatment. SPOUT provides engineering services to partner organizations that have long term commitments to improving health and opportunity in economically developing regions. SPOUT advocates water solutions that are sustainable, effective, and culturally appealing.

Here are two examples of SPOUT's current programs:

EarthWater- SPOUT is developing EarthWater- a simple water treatment process that removes pathogens by using natural, renewable materials that can be found locally in the regions of greatest need. The EarthWater system utilizes natural seed extracts in conjunction with a sand filter to remove dirt, parasites, bacteria, and viruses from water. The EarthWater systems can be built and sold locally, creating microenterprise opportunities that will catalyze the marketing and distribution of the technology. The systems will cost about \$2/yr to the user- or less than one penny per day- while providing up to 40 liters of safe water each day. SPOUT is currently optimizing the EarthWater design and will begin field testing in Haiti and Mozambique in 2009.

Water101- A multitude of skilled, educated workers will be required to bring sustainable water solutions to the billion people in need. Unfortunately, many people working to promote health and economic development around the world have limited knowledge about water treatment. Water treatment design is a complex process that requires careful consideration of water source quality, economics, and local culture. To help workers through this process, SPOUT is creating Water101- an interactive, online tool that will provide workers with information and training that will enable them to implement sustainable water solutions that are specific for their community. Water101 will teach development workers how to test a water source, how to determine treatment goals based on test results, and how to work with the community to select and implement an appropriate design to meet those goals. To make Water101 a reality, SPOUT is writing unique algorithms, creating a user-friendly website, and recording engaging videos that will demonstrate each step in this complex design process. SPOUT hopes to have a beta version of this tool available by 2011.

Learn more about SPOUT at <http://www.spoutinstitute.org>