

Clean Water and Sanitation Ministry
By Tom Waldoch
Social Ministry Team

“Water, simply put, makes the existence of the human race on this planet possible.” (1) Paul Alois; [Global Water Crisis Overview](#)

MPLC has had an on-going clean water and sanitation ministry for the past three years. We support World Toilet Day in November and World Water Day in March. We helped to improve hygiene and environmental sanitation conditions for villages in Nicaragua through a LWR project by installing ventilated pit latrines and training the families in their proper use and management. Your generosity helped to change attitudes, knowledge and practices in these same villages about personal hygiene and environmental sanitation through involvement in a community wide sanitation curriculum that involves the schools, teachers, community leaders and water committee members. We raised funds for the LWR “Fill The Well” program. This project will improve rural communities’ access to water by digging wells, building irrigation systems, providing clean water during emergencies and training communities in water management as well as constructing infrastructure for water catchment and storage. The “noisy offerings” for these projects this past year alone raised \$2800.

And yet, 2 billion people lack access to clean water, 1 billion lack enough water to meet their basic needs, 4 billion people lack sewer or waste water treatment and 5 million people, mostly children, die each year from water born diseases. Population growth and groundwater depletion present the two most significant dangers to global water stability. Fresh potable water is now being consumed at an alarming and unsustainable rate. Seventy percent of the world’s water is used for agriculture, 22% by industry and we now consume over 13 billion gallons of bottled water each year.

While the problems are enormous, the situation is far from hopeless. Short term, agriculture and industrial practices are being revamped. Water saving appliances and novel infrastructure solutions are being developed. Purification devices such as ceramic filters, individual point of use filtration, solar purification are being used. In 2003, a device called the Slingshot, named after the technology David used to bring down Goliath, was invented. It can purify arsenic-laden water, salt water, water contaminated with animal or human waste at the rate of 250 gallons a day, powered by an updated Stirling engine designed to burn almost anything, including cow dung, and run maintenance free for at least 5 years.

Longer term (5-20 years), new technologies like computer assisted precision agriculture, vertical farming, and a smart grid for water similar to our electrical grid will be in place. Water is now being purified using nanotechnology filters with pores as small as 10-15 nanometers (1 nanometer = 1 billionth of a meter) which is able to filter even viruses. NanoH₂O, adds reverse osmosis to desalination to purify salt water. Imagine techno toilets that require no infrastructure, no pipes, no sewers, no septic system, that powder and burn feces, flash evaporate the urine and generate enough power to charge your cell phone while you relive yourself.

“Earth is a water planet covered 70% by water. Like most resources, water isn't truly scarce, but

rather inaccessible.”

“Technology is a resource-liberating mechanism. It can make the once scarce the now abundant.”

(2)

P.H.Diamandis & S. Kotler ; Abundance-The Future is Better Than You Think,