



## Biosand Filters: Cause for Celebration in War-Torn Northern Uganda

by Pat Klever, Projects Director

The Lord's Resistance Army (LRA), a paramilitary group, has terrorized northern Uganda for over two decades. Brutal killings, abductions, and rapes are tragedies experienced by almost every family in the region. In the midst of the violence, Lifewater partner Divine Waters Uganda has offered the hope of Christ through safe water, sanitation, and hygiene education.

Seeking security, many families in northern Uganda live as refugees in densely packed Internally Displaced People's (IDP) camps. In the camps, safe water is scarce, and sanitation facilities are woefully insufficient: over one thousand people often depend on a single well. In some cases, no safe water supplies are available. Divine Waters has worked to improve these conditions.

Recently violence has decreased in certain areas of the country, and people are leaving the camps to return home. Many return to devastated villages with no safe water or sanitation. Desiring to move beyond relief work to sustainable development, Divine Waters is addressing water, sanitation, and hygiene needs in villages being repopulated.

Last December I had the privilege of traveling with Divine Waters staff to Ogur, one of the villages being repopulated. Divine Waters is training the community in

*continued on page 2*



**Photo:** The women of Ogur Village, Uganda, greet Lifewater and Divine Waters staff members, dancing and singing praises of their new biosand filters.



### From the Director's Desk

#### A Time to Prepare

by Dan Stevens, Executive Director

As I was growing up, my church and family always enjoyed great Easter celebrations, but they only lasted a single day. Easter Sunday came and went so fast; I never felt one day gave me time to appreciate the significance of the cross and the resurrection in my life.

I began to give up something for Lent as a tangible way of preparing my heart and mind for Easter. Giving up something for Lent gave me a focused time to remember the magnitude of what Christ did for me and all creation.

Participating in Lifewater's *Significant Sacrifice* has further enriched my Easter preparation. Together with my family, I give up something for the forty weekdays before Easter and give what we would have otherwise spent to offer the gift of safe water, sanitation, and hygiene to those in need. By giving up something, we are reminded of Christ's sacrifice for us and for the world. By giving the gift of life by helping meet people's basic needs, we proclaim new life in Christ and more fully celebrate Christ's redemptive act.

This year I welcome you to join me in preparing for Easter through *Significant Sacrifice*. Few things have contributed more to helping my family celebrate Easter's joy. I trust it will be the same for you. ○

Significant Sacrifice begins February 21! Log onto [www.significantsacrifice.org](http://www.significantsacrifice.org) for details.

- Give up something for the forty weekdays before Easter.
- Give what you save to offer a gift of new life through water, sanitation, and hygiene.



# Biosand Filtration: Appropriate Technology

## Biosand (cont. from page 1)

biosand filter construction and maintenance as well as hygiene. During the trip, I wrote in my field journal:

*Our vehicle turned onto a bumpy dirt road that became more narrow as we drove deeper into the bush. As we approached the village, we heard the sound of singing and saw people coming to greet us. They were waving branches and singing; everyone was celebrating! We joined the parade, walking arm in arm to a central meeting place, where we sat and heard great things about biosand filters and the blessing they had been for the community. In the midst of light rain, local leaders thanked Lifewater and Divine Waters Uganda for bringing clean water to the village. Members of men's and women's groups sang the praises of safe water, healthy children, and healthy families. They sang how they wished everyone in the Congo and Sudan could have a filter of their own and joyfully thanked God for providing for them.*

In this part of Uganda, where water is readily available, the biosand filter is an ideal technology. As evident in my journal notes, the project has been extremely well received since it was introduced six months ago. Hygiene training is offered together with biosand filter distribution.



**Photo:** This entire group of Ogur villagers uses one biosand filter as its source of clean, safe water—demonstrating that there is still much work to be done! Ideally, one filter serves twelve to fifteen people.

Lifewater volunteers will continue training Divine Waters in advanced hygiene and biosand methods this year and next. Lifewater will support Divine Waters' training in filter maintenance and construction. The collaborative effort will provide nearly one thousand people with safe water. ◦



## Biosand Filters Bring Hope Home

by Jeff Bjork, Lifewater Board Member

In areas like Mapalo, Zambia, where polluted ground water makes well drilling pointless, a biosand filter provides a life-giving solution. Pouring even contaminated water through this simple filter made from local materials produces one liter per minute of safe water that is 97 percent pathogen-free! One filter can meet the needs of this family, plus ten neighbors! The two men holding this newly installed filter belong to the biosand filter crew for Seeds of Hope International Partnerships (a Lifewater partner). The father of the family (second from right) is excited to know that he has truly brought hope home to his wife and children, who will no longer suffer from waterborne diseases! Joining the celebration are Francis Faruka (far left), Area Director for Seeds of Hope International Partners, and Lifewater Board Member Jeff Bjork (far right). ◦

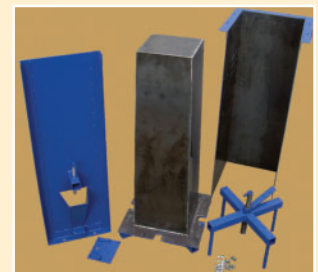
## Biosand Filtration: An Ideal Technology

by Fred Proby, Water Programs Coordinator

Many communities have a reliable supply of water, such as a nearby river or lake, but that water is usually so contaminated with human or animal waste that it is not safe to drink. Technologies abound for removing bacteria, parasites, and harmful chemicals from drinking water. However, most require a source of power, depend on complicated manufacturing procedures, or involve frequent maintenance. Only a few water treatment methods are appropriate for a poor village without electricity.

Biosand filters are very effective at reducing the concentration of disease-causing organisms and even some harmful chemicals. The design that was originally developed by Dr. David Manz has been adopted by many development organizations and is used around the world. The filter consists of

a concrete vessel that is filled with sand. The outlet is set so that the top of the sand is always covered with water. The “biological layer” that develops in this moist environment contains organisms that feed on harmful bacteria. The filter only needs maintenance when the biological layer becomes too thick.



The biosand filter is made of common locally-available materials and is very easy and inexpensive to construct. It is an appropriate technology around which small businesses can be developed. Lifewater offers our partners training in constructing and marketing biosand filters. ◦



## Lifewater's Lead Trainer Mentoring Program

by Janet Proby, Programs Director

One of Lifewater's distinctives is that we utilize qualified North American volunteers to train international partners. This strategy multiplies our work in a highly cost-effective manner. Coming from many professional backgrounds, our Volunteer Trainers receive specific training in one or more of Lifewater's program areas (Well Drilling, Hand Pump Repair, Biosand Filtration, Sanitation, and Community Health through Hygiene) as well as in community based training strategies.

To do its job well, Lifewater needs experienced Lead Trainers who are knowledgeable and proficient in training international partners. Lead Trainers are volunteer field trainers who are selected for their leadership qualities, training skills, and long-term commitment to Lifewater. They receive advanced training and participate in multiple international trips.

With the support of a designated grant, Lifewater recently initiated a Lead Trainer Mentoring Program designed to develop additional qualified Lead Trainers. At the heart of this program is mutual commitment. As Lifewater invests in the Volunteer Trainers accepted in this program, the volunteers in turn commit to continue using their knowledge and skills to train our international partners over a sustained period of time.

Lead Trainer Cathy Fitzgerald confirmed the value of the program after a sanitation training last November: "Even after working in the field of sanitation and international water development for the past ten years, I learned so much at the Lead Trainer Mentoring Program training about how to involve the community in the project and how to create sustainable projects."

As Lifewater continues to invest in advanced training for potential Lead Trainers, it creates a win-win situation for Lifewater, Volunteer Trainers, and especially our international partners and the people they serve—the ultimate beneficiaries of the program. •

## Important Dates!

### February 21 *Significant Sacrifice begins!*

Give up something for the forty weekdays before Easter and give the gift of hope to those in need through safe water, sanitation, and hygiene education. Log onto [www.significantsacrifice.org](http://www.significantsacrifice.org).

### After February 21?

You can still participate in Significant Sacrifice! Start today for an Easter preparation with a purpose.

### March 22 *World Water Day.*

Established by the United Nations in 1992, World Water Day raises awareness of the ongoing world water crisis. This year's theme is "Coping with Scarcity." Think of some way to mark the day: write a letter to the editor of your local paper, organize a "water walk," make an announcement in church, or urge a friend to visit Lifewater's website. Visit [www.worldwaterday.org](http://www.worldwaterday.org) for more information.

### April 8 *Easter Sunday!*

### June 22 to 28 *Lifewater's Annual Conference*

Titled "Envision," Lifewater's annual conference will be held at Chapman University in Orange, California. The conference will include a celebration weekend followed by a full training for our Volunteer Trainers in Community Based Training Strategies. Mark your calendar for this exciting time of fellowship and learning.

LIFEWATER INTERNATIONAL  
ANNUAL CONFERENCE 2007

## Standing Room Only at Lifewater's No Show New Year's Eve Party!

by Erin Roberts, Development Director

Lifewater's first annual **No Show New Year's Eve Party** was a great success. Although no one actually attended the party, supporters from across the country sent in RSVP cards with donations. The number one reason supporters were unable to attend the party was that they wanted to get a head start on their New Year's resolutions. Peggy and Steve Hughes from Kansas City said, "What a great idea, it really made us laugh. We were happy to stay at home on New Year's Eve and donate our money to Lifewater instead." Lifewater hopes to not see everyone again next year!

Across the country, faithful donors helped Lifewater begin 2007 on stronger financial footing, with a 13 percent increase in giving over last year. The consistent support from our faithful donors enables Lifewater to pursue its mission. •

### Ensure a legacy of hope: include Lifewater in your estate plans.

For more information on planned giving contact Erin Roberts at (805) 541-6634 ext. 31 or [eroberts@lifewater.org](mailto:eroberts@lifewater.org).





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RETURN SERVICE REQUESTED

Prepare your heart and mind for Easter: visit [www.significantsacrifice.org](http://www.significantsacrifice.org)

## Please Pray for Our Volunteers in the Field

### *Leaving in February:*

**Uganda** (2/1-2/20): Team Leader Rod Thompson and Volunteer Trainers Dean Cavanaugh, John Angstmann, Lon Stuebinger, and Greg Bachman will train Lifewater partners Divine Waters Uganda and Deliverance Church/JOY Drilling in Biosand Filtration and Pump Repair.

**Uganda** (2/19-3/9): Team Leader Marge Rau and Volunteer Trainers DeDe Taylor, Joyce Maxwell, and Sally Scholl will train Divine Waters and the Deliverance Church/JOY Drilling in Advanced Community Health through Hygiene.

**Kenya** (2/8-3/12) Lifewater staff member Sam Moore and Volunteer Trainer Jonelle Stevens will work with Lifewater partner GWAKO. Sam will help initiate the second phase of a USAID-funded project, and Jonelle will interview teachers in preparation for writing hygiene and sanitation curriculum to be used in primary schools.

**Kenya** (2/26-3/21) Volunteer Trainers Sue Morris, Dick Morris, and Jonelle Stevens, and Lifewater staff member Laura Rose will teach two sessions of Sanitation and Community Health through Hygiene to teachers, community leaders, and GWAKO staff members.



**Photo:** Lifewater Volunteer Trainer Rod Thompson working with Deleo Moses Ocen, director of Divine Waters Uganda, on biosand filters.