

# Hunger News & Hope

...a Seeds of Hope publication

## Watering Malawi

by Claire Jansen

Imagine this ad on TV:

*Installing a treadle pump: \$200. Starting a fish farm: \$500. Installing a toilet in a Malawian school: \$2,000. Digging and maintaining a borehole well: \$6,000. An education, preventing a cholera epidemic, crops to feed your family and community: priceless.*

Watering Malawi is a project started by students at the tri-denominational Faith in 3-D conference in 2008. The conference involved youth from the Presbyterian Church USA, the Episcopal Church and the Cooperative Baptist Fellowship. Partnering with Passports, Inc., a youth missions camp based in Birmingham, AL, Watering Malawi was organized to bring clean water to one of the poorest countries in Africa.

The people of Malawi are suffering without access to clean water. The water is there, but it is deep underground, inaccessible to all Malawians except those who live on the two percent of land that is arable. The reality of those who live on the other 98 percent of the land is a multi-year drought, famine, epidemics like cholera and—if you're female—the primary responsibility of finding water for your family, no matter how far you have to walk.

To address the major problems caused by the lack of water, Colleen Burroughs, the founder of Watering Malawi, came up with six ways for people to contribute toward clean water solutions. Donations on the project's web site are set up in different amounts, in the form of "a garden," "a cup," "a loo," "a fish," "a cross" or "a drop."

A donor can give a garden to a village in Malawi for \$200, the price to install a simple treadle water pump. Because only two percent of the land is arable, farmers are forced to depend on unreliable rain patterns and cyclical international relief efforts—so, when either trickle stops, so does the water, followed by the crops.

A treadle pump, however, allows farmers to be self-sufficient where water is concerned. Successful crops mean that villages can be fed—and most villages support a population of AIDS orphans. Plus, the excess food can be sold at market to increase local economies.

Donors can give "cups of clean water" for \$6,000, which is the amount it takes to dig a deep borehole well and train a "Mother's Club" to maintain it.

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Borehole wells can be used to supply larger communities with water, and the runoff from the well can flow into irrigation systems that feed village gardens.

Each well is given to a Mother's Club—a group of 15 women of child-bearing age—which is then responsible for maintaining the well. The \$6,000 also covers the cost of instructing a Mother's Club in nutrition, child-growth monitoring and gardening techniques, along with well maintenance.

Providing a toilet for a school might not seem related to enabling children to gain an education, but, for \$2,000, that is exactly what installing a latrine can do.

Girls, especially, commonly miss at least a week of school a month, but with the proper sanitary bathroom facilities, they are allowed the same amount of schooling as the boys. Also, sanitary washbasins in the bathrooms help prevent the spread of disease.

For \$500 a fish farm can be given, including an initial stock of fish and lessons to teach farmers how to raise crops of fish to provide protein for their families and community.

The fish in Lake Malawi used to provide inhabitants with 70 percent of their protein intake, but overfishing in

shallow waters has led to drastic decreases in the fish population.

Protein is especially vital for the health of new mothers and their babies.

Two other creative ways that Watering Malawi helps are through the micro-enterprise marketing of clay crosses and a campaign to raise "drops" of water.

Women and children make crosses out of Malawi clay, and these sell for \$15 each at Passport Inc.'s online store [*see the web site below for more*].

The idea behind the water-drop campaign is that persons might not be able to give the entire amount it requires to donate a pump, a well or a fish farm, but each person can give a drop. It takes 500,000 drops to fill the average-sized bucket in Malawi, and every drop counts.

—*Claire Jansen, a native of Springfield, MO, is a recent graduate of Baylor University's professional writing program. Sources: Passport, Inc., Watering Malawi.*



*art by Sallylynn Askins*



*Photo courtesy of Watering Malawi*

## *When Nobody is Looking*

**G**rowing up with three brothers, I was always surrounded by comic books and action figures. I watched all the action-packed cartoon shows like GI Joe, Spiderman and Superman.

As many children did, I thought the "good guys" on those shows were the heroes of the world. Lost in my innocence, I never thought a person could be considered a hero if he or she didn't fly, have super strength or save the world in a miraculous way.

As I grew older, my view of heroism expanded. When I was in eighth grade, I remember watching dumbfounded at the 9/11 attacks on the TV. I saw how average people like firefighters and policemen and -women are

everyday heroes. They put their lives on the line in order to save people who may or may not be grateful of their service.

Now that I am in college, I see heroes all around me. Students use their time to volunteer and help in the community instead of partying or lounging around. Friends will drop anything to help out a friend in need, no matter what time of night it is.

I recently saw a student helping an elderly lady with her groceries. Heroes are individuals who do the right thing when nobody is looking.

—*From "Unsung Hero" by Lane Irwin, a recent graduate of the Baylor University School of Business. Irwin hales from Dallas.*



## Bible School Curriculum for Children

Passport, Inc, a youth mission camping program in Birmingham, AL, has produced a Vacation Bible School (VBS) curriculum in partnership with Watering Malawi, called “Water U Doing?” [See the article beginning on page 1 for more about Watering Malawi.]

This VBS curriculum helps to support the Malawi project, which advocates and works for long-term solutions to poverty and hunger through irrigation systems and clean water.

The “Water U Doing” curriculum is accompanied by a set of five three-to-five-minute videos, designed for the opening portion of Bible school sessions. The videos introduce the people of Malawi and explore their need for water as the VBS theme and project. The videos, designed for children, are all narrated by a child and portray scenes from Malawi.

The first video introduces students to the nation of Malawi. It includes countryside scenes and interviews with Malawians, describing the difficulties they face getting water during the dry season.

The video explains that poorer countries like Malawi have no irrigation systems and rely on other means to bring water to their gardens. It closes by asking if the viewer is ready to help “water” Malawi, and thus enable more food to grow for its people.

The other videos explore the problems Malawians face in watering their gardens and having clean water for drinking and washing—as well as some of the solutions they have found. Money raised for Watering Malawi will purchase for treadle pumps, which provide an inexpensive and effective means of irrigation by moving water from streams and rivers to local gardens, along with building wells for clean drinking water for Malawians.

The videos encourage the children to help the people of Malawi by sharing what they have—their money as well as their ideas.

The fourth video describes the importance of the cross as a symbol of Jesus’ love for us, and as a calling to share that love with others. It offers a creative way to help Malawians by buying and making clay crosses, which are part of a micro-enterprise endeavor created to raise money for Watering Malawi. The final video encourages kids to dream up their own ideas for helping the people of Malawi.

This creative and practical video series teaches children that we can share God’s love by sharing what we have, connecting God’s love for them with love for the whole world.

Along with the written curriculum, the films offer children a world perspective in their faith, helping children connect their faith with serving others in an easy-to-understand way.

“Water U Doing?” is available for purchase from the Passport web site ([www.passportstore.org](http://www.passportstore.org)) or by calling 800-769-0210.

—Sources: Passport, Inc., Watering Malawi and a review by Kristopher Norris on the Cooperative Baptist Fellowship web site ([www.thefellowship.info](http://www.thefellowship.info)).

### Water in Scripture

*Ho, everyone who thirsts, come to the waters;  
and you that have no money, Come, buy and eat!*  
—Isaiah 55:1

From the waters of the deep referenced in Genesis to the “river of the water of life” in Revelation, water plays a prominent role in our scriptural and liturgical tradition. Arising from a semiarid part of the world, the Bible exhibits a keen understanding of how essential water is to life and the dire consequences that arise when water is scarce.

*Suggested passages for reflection:*

Genesis 1:1-10	Creation of land and seas
Exodus 14:21-29	Parting the Red Sea
Exodus 17:3-7	Water from the rock
Psalms 107:35-41	God turns deserts into pools
Proverbs 25:21	Give water to your enemies
Isaiah 21:14	Bring water to the thirsty
Isaiah 35:6-7	Waters shall break forth in the desert
Isaiah 55:1	Everyone who thirsts, come
Matthew 25:31-45	I was thirsty and you gave me drink
John 4:7-15	Woman at the well
Revelation 22:1-2	The river of the water of life

—from Church World Service

# Christians Speak out on the Health Impacts of Climate Change

WASHINGTON, DC—Members of the US faith community spoke out in May at an Environmental Protection Agency (EPA) public hearing, held to determine whether greenhouse gases such as carbon dioxide are a threat to public health and welfare.

Religious leaders turned out to support the EPA's preliminary finding that greenhouse gases are a form of pollution that threatens the health and welfare of current and future generations, and to encourage the EPA to move forward quickly with strong regulations on these pollutants.

According to Rev. Sarah Scherschligt of Prince of Peace Lutheran Church in Gaithersburg, MD, "This is the work that my congregation—and countless others in the Lutheran church, and more broadly in Protestant and interfaith coalitions—are called to: healing God's earth and caring for it. We have a mutual relationship with it—we don't dominate it

(as we once thought) but neither does it dominate us. We are partners, and the more we care for God's creation, the more it will care for us."

In addition to Rev. Scherschligt, several other clergy members testified at the hearing, including Rev. Harriette Sturges of St. Alban's Episcopal Parish in Washington, DC.

Later that week, three clergy members from various denominations testified at the EPA's second hearing in Seattle, WA, adding their voices to the climate change debate. More than 25 others from the DC and Seattle areas submitted written testimony conveying their support for EPA regulation of global warming pollution. Other written testimony was expected into the summer.

This is not the first time people of faith have spoken out about the need for the US to take strong measures to address greenhouse gas emissions and their impact on God's creation.

In March, the National Council of Churches (NCC) delivered a letter to President Obama, asking him to respond to the challenges of global climate change during his administra-

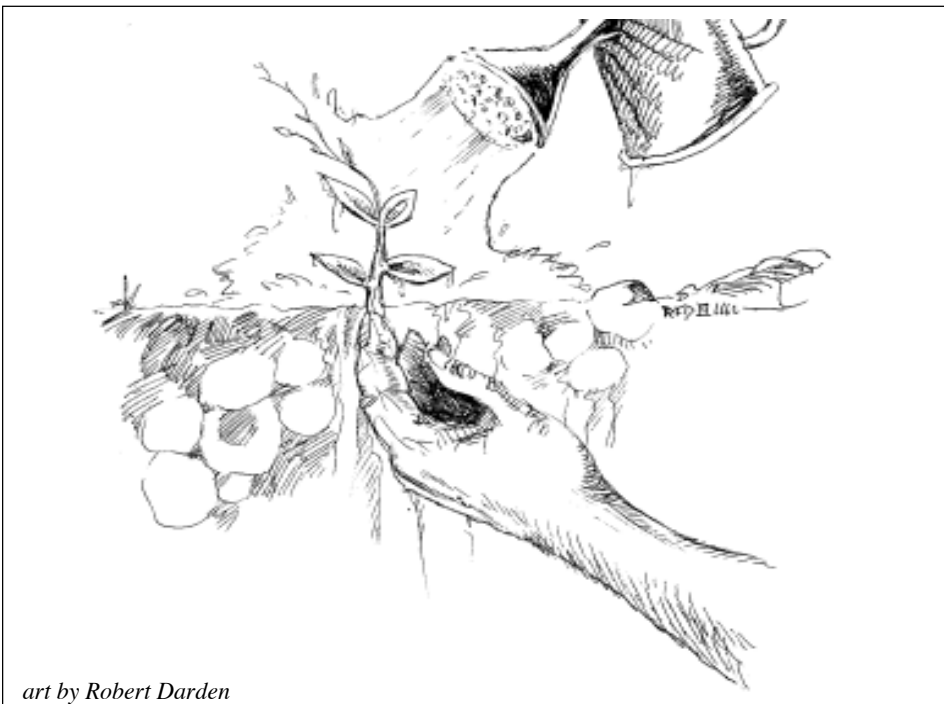
***"People of faith understand that climate change is one of the greatest moral challenges facing us today and that it threatens all of God's people...."***

tion. The letter was signed by more than 13,000 people.

"People of faith understand that climate change is one of the greatest moral challenges facing us today and that it threatens all of God's people, especially the most vulnerable in our communities," said Tyler Edgar, Assistant Director of Climate and Energy for the NCC's Eco-Justice Program. "For us, climate change is an issue of justice."

Allison Fisher of Greater Washington Interfaith Power and Light told Philip Jenks of the NCC, "Over the years we have seen multiple faith communities—including Jewish, Christian, and Muslim—respond to the climate crisis and answer their calls to be good neighbors. We are so happy that the EPA is finally answering its call to ensure the health and welfare of all."

—From a story by Philip E. Jenks of the National Council of Churches. The NCC is the ecumenical voice of America's Orthodox, Protestant, Anglican, historic African American and traditional peace churches. These 35 communions have 45 million faithful members in 100,000 congregations in all 50 states.



art by Robert Darden

*special section:*

# The Global Water Crisis and What You Can Do about It

by Salif Mahamane

## *Climate Change and Water Sources*

Water is the universally essential component of life on earth. No secret. No doubt. Always, in one form or another, it is constantly moving around the globe, in and out of large bodies of itself, in and out of the air, in and out of all us little critters.

More than 71 percent of the earth's surface is covered by water. You could fit nearly 21 times the area of the 48 contiguous states of the US in the Pacific Ocean alone. So then why, with so much water existing in a self-refreshing cycle, are there crippling water shortages occurring all over the world like never before?

First, most of the Earth's water is naturally unavailable for human use. Ninety-seven percent is located in the oceans. The next 2.4 percent is in glaciers and the ice caps. Finally, only 0.6 percent makes up rivers, lakes and ponds—the primary source of fresh water available for animal use. However, glacial melt and snow do feed many rivers which, in turn, serve as a crucial source of fresh water for animals.

But this is not causing the problem. The distribution of water in its different natural forms and bodies has been such, of course, for the history of the Earth. But these percentages definitely show how small a portion of our planet's water is available for all life at any given time, and that it must be managed wisely.

So, what's causing the decrease in available water? Global climate change is easily the most debilitating factor, if not single-handedly the root culprit.

Climate change is different from global warming in that it refers to not only the average temperature of the earth rising, but also the phenomenon of all regions around the globe experiencing dramatic change in their prevailing weather conditions—i.e. precipitation, temperature, humidity, sunlight, air pressure and wind—across the year, averaged over a series of several years. Quite literally, the very climate of the earth is changing.

Climatic changes must be considered permanent. A report released on January 26 of this year by the National Oceanic and Atmospheric Administration (NOAA) explained that, based on new research, scientists now know that anthropogenic greenhouse gas emissions remain in the atmosphere for at least 1,000 years. That means that we

already cannot return from the level of greenhouse gases we have emitted into the air up to this point.

Changing the global climate is an enormous occurrence. No one in the world is without a sense of what's normal climatically in his or her region. Every aspect of life from commerce to farming to education—even culture and religion—is rooted somehow in the natural identity of an area.

For example, a recent paper by Meghna Bhattacharjee of the Columbia Water Center at Columbia University describes the role in Indian life of the Ganga (Ganges) River that runs down through India from the Himalayas.

More than 400 million people depend on this river. In Hindu doctrine it is even considered one of the four mothers of all Hindus. Followers spread the ashes of their deceased loved ones on it and sing at its shore. Each day, at least 6,000 people dip their bodies in it to wash away their sins. And even more people port the river's water back to their communities.

Bhattacharjee quotes the first Prime Minister of India, Jawaharlal Nehru, as having declared: "The story of the Ganges, from her source to the sea, from old times to new, is the story of India's civilization." This river is now in great danger due to the shrinking of the Himalayan glaciers that feed it.

## *Water Shortage Around the World*

This shrinking of such water sources is critically affecting life around the globe.

### **Africa**

Across Africa, farms are primarily rain-fed. This practice requires very thorough and intimate knowledge of, and attention to, yearly patterns of rainfall. Because global warming is causing changes in climate, the rains have begun to occur at different times of the year and in different patterns. Farmers who are familiar with pre-climate-change patterns and levels of precipitation, cannot grow the crops they could before.

Experts of the Intergovernmental Panel on Climate Change (IPCC; organized by NATO) predict that, by 2020, Africa as a continent will be able to produce only half the

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food that it could before. Africa's rapid population growth and widespread disease can by no means afford to be met with such an increase in already devastating famine.

### **Asia**

In Asia, 1.3 billion people throughout the countries of China, India, Nepal, Pakistan, Myanmar, Bhutan and Afghanistan rely on water from the Himalayan glaciers, Bhattacharjee says. The Himalayas are the world's largest glacial and permafrost area after the polar ice caps.

And these glaciers are shrinking. Average temperature in the Himalayas is increasing by 0.3°C every decade, which is twice the rate of increase as that of the rest of the world. Independent scientists claim that the whole Himalayan range consists of 18,065 large and small glaciers, according to Man Mohan, editor and writer for northern India's *Tribune*, in his special feature, "Himalayan Glaciers May Disappear by 2035."

Also, the enormous Gangotri glacier, which is responsible for 70 percent of the water in the Ganges River, is shrinking at an alarming rate of 17 meters a year due to global warming. Jere Locke, activist with Texas Climate Change Emergency (TCCE), explained that, because of the shrinking of the glaciers, the people in the countries dependent on their water will have only half the water that they've had in years past available to them.

And that's if something *does* get done.

### **Europe**

Europe will also experience the adverse effects of climate change. Similar to what's happening in Asia, glacial shrinking will result in summer flow being reduced by up to 50 percent in central Europe and 80 percent in southern Europe. Also, changes in the water cycle are likely to increase the chance of floods in northern, central and eastern Europe—and droughts in southern Europe.

The latest IPCC assessment report, released in 2007, estimates that, by 2020, annual runoff will increase in the north by up to 15 percent and decrease in the south by up to 23 percent, resulting in the aforementioned reduced summer flow.

By the 2050s the decrease in annual runoff will be 20 to 30 percent in southeastern Europe. And by the 2070s, today's 100-year droughts will be returning every 50 years, instead of 100, in southern and southeastern Europe. With these changes will come severely increased and intense competition for water resources across Europe's population.

### **Latin America**

In Latin America, almost 13.9 percent of the population (71.5 million people) has no access to a safe water supply, according to the 2007 IPCC report. It is estimated that, in 2020, 12 to 81 million people will be experiencing height-

ened water stress. This means that they live in water-stressed watersheds (less than 1000 meters per capita, per year). By 2050 the number is estimated to be in the range from 79 to 178 million.

Glacier retreat is on the scene once again, affecting this area of the world in countries such as Colombia and Peru. Highly stressed conditions are predicted for the decade between 2015 and 2025. Sixty percent of Peru's population will be noticeably impacted by this decrease in glacial melt water.

These two countries also depend on this water as it feeds the Mantaro River where a large hydroelectric plant generates energy for 40 percent of Peru's population and 70 percent of its industries. Thus, climate change, caused by dirty energy generation, actually affects the ability to generate cleaner energy.

### **North America**

In North America, warming has shifted magnitude and timing of hydrological events in areas with winter snow, according to the IPCC. Snowfall has decreased in the west and Prairies in Canada over roughly the past century. Spring and summer snow cover has decreased and spring snow water has declined in the range of 15 to 30 percent in the western mountains of North America. These changes occur primarily at lower elevations and are due to warming, as opposed to mere changes in precipitation.

Peaks in streamflow in the snowmelt of the western US mountains were occurring 1 to 4 weeks earlier in 2002 than they did in 1948. And, in the last 100 years, breakup of river and lake ice has advanced by 0.2 to 12.9 days. Due to population growth in North America, drought risks have severely increased, as now there are higher demands from agricultural, municipal and industrial uses and more frequent allocation of water resources.

The arid climate of the southwestern states of the US is already seen to be spreading. Even the eastern part of the nation is becoming at-risk for droughts that they have not seen in the past.

### **Polar Ice Caps**

The Polar Ice Caps are, of course, already undergoing drastic change. There is projected an average temperature change of about 2°C to 9°C by 2100. The IPCC projects, based on test simulations, have determined that, by 2080-2100, an approximately 33-percent mean reduction will be seen in annually averaged sea-ice area in the Arctic. Increased precipitation and Arctic river runoff will lead to a freshening of the ocean's surface in northern high latitudes.

This, in turn, affects the geographical distribution and migratory patterns of many animal species, pushing them further north. The change in these species' travel behavior will likely affect water quality as they carry diseases to new



areas. In the Arctic, many people traditionally depend on untreated fresh surface and groundwater.

While the animals will raise the contaminant content of the water, so will the changed hydrology of the region as rising sea levels will deposit more water contaminants in groundwater reserves. This means that people throughout the Arctic who have always been able to depend on untreated local freshwater will be directly exposed.

### *What's This Got to Do with Me?*

Developed nations are by no means out of the reach of an impending global water crisis. If anything, they are in the worst position, because their populations can be so generally oblivious. For example, in Central Texas, I currently live in the country's most severe drought region.

However, no experiences in my personal life would immediately suggest such a thing to me. I turn the knob on my faucet, and it's there. Yes, I have to pay for it, as it's treated by the city—but it's there. As far as I can feel, it's not going anywhere. And therein lies the problem: most of us don't see very far ahead. I don't know whether it is because we can't, or we don't want to, but we don't see it.

Industrialized nations habitually focus on incessantly "comforting" their citizens. Any new convenience that can be added to life to reduce immediate stress of any sort is often added without hesitation. But who pays for these comforts? Everyone. The US, for example, accounts for about 3 percent of the earth's human population, while being responsible for the consumption of 40 percent of her natural resources.

But the shortage of water due to climate change is not a far-off dilemma, in time or in space. Scientists with the IPCC define an increase in average global temperature of 2°C as being the threshold for reaching levels of dangerous climate change. Locke says that we need to avoid getting to that point. He adds that, once we get to the 2°C mark, it's a runaway train from there. After that, we will soon hit 3° and then 4°.

### *How to Avoid Disaster*

To have a mere 50-50 percent chance of avoiding that dangerous 2° mark, the IPCC says that we need to stabilize at 450 parts per million CO<sub>2</sub> (carbon dioxide) emissions. We are currently at levels of carbon emissions where even this basic goal will be quite an accomplishment. But, according to these experts, it must be done.

To reach this goal, developed nations must reduce their emissions levels to 40 percent below 1990 levels by 2020 and 90 percent below 1990 levels by 2050. US President Obama's energy proposal meets with the goal for 2050, but only meets a 14 percent below 1990 levels goal for 2020. This makes the 2050 goal useless.

If we don't curb our carbon emissions by 2015, bringing them to a peak and then into decline, we will be in deep trouble, Locke says.

### *Water Legislation in the US*

Two energy bills, meant to bring down carbon emissions in the US, are currently being authored in Congress. Hower, having reviewed them and met with experts and other activists in Washington, DC, Locke describes both of these bills as weak and insufficient to help meet the global goal to stabilize at 450 parts per million CO<sub>2</sub> emissions.

The first of these bills is the Waxman-Markey bill that will restrict polluters, but Locke says, not forcefully or quickly enough. The bill does not include any auctions in which polluters must bid and pay large amounts—essentially taxes—to be able to pollute.

These auctions often work as a great deterrent from polluting, driving large polluters to find alternative energy sources, Locke says.

The bill also contains too many offsets. Simply put, offsets give polluters leeway in the restrictions that the same bill sets forth. Locke explained that the offsets in the Waxman-Markey bill will allow polluters to continue polluting in some cases until 2026 before having to stop.

This is years after the first checkpoint at 2020, by which scientists say we must have emissions down to 40 percent below 1990 levels.

The other bill is being piecemealed together by the Ways & Means Committee in the House. Locke says this bill is a little better. It provides for auctions that will give wind and solar energy alternatives more economic appeal.

These bills are being written at press time. They will soon be moved to the floor of the House, and then the Senate, for voting. Locke explained that at this point, before voting begins, the bills will be at their strongest before being compromised in House and Senate by partisan debate and amendments. Then, he says, even if they pass, little good will be done.

Locke and other advocates for environmental change are urging people to make themselves heard in Congress as early as possible, before the floor debate begins. Important points to be emphasized are the inclusion of auctions in the bills and the exclusion of offsets.

Often, the hard results of environmental science get watered down too much on their way to the public. Then politicians deliberate on what is willing to be paid for and what is practical while designing new energy bills. Environmental activists say that this is not a problem of the future to nobly address for the sake of our grandchildren's children, or an economic or social problem in which a person's status determines how they will be affected. This is an

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imminent issue that affects everyone.

Central Texas activist and mobilizer Mary Darden, president of Keep Waco Green (KWG), agrees. KWG successfully thwarted the plans of TXU Energy to build several coal plants within a 10-mile radius of Waco, TX. Darden says there is a cognitive dissonance between the evidence and its acceptance by the population, when such reports are released by NOAA and the IPCC.

This means that when these reports come out with urgent information about climate change, there is a crippling hesitation before people accept the reality. Activists are saying that we cannot afford this type of delay. "Anyone who says global warming is not real or is not the culprit behind the water crisis has not done their homework," Darden said.

Darden and Locke both agree that, in only six years (by 2015), it will be most likely too late for our efforts to matter if we have not sufficiently acted by then. Darden says we need to completely shut down every coal plant in the nation as soon as possible. She admits that, to many, such a claim will sound very dramatic, but that the situation we are facing is really that extreme.

Coal plants use an enormous amount of water in simply cooling their operation, and then they emit enormous amounts of CO<sub>2</sub> into the atmosphere. There is an intimate relationship between energy production and water, in which the more energy generated, the more water is used. Seventy percent of the mercury, a very toxic metal now found in water, is from coal plants. There is also research showing a correlation between autism and coal plant emissions.

"We don't take care of our water," Darden said. She said that the two main ways we abuse water is through direct runoff and, indirectly, through air pollution. She also offered several tips as to what people can do in their personal lives to protect our water:

**1. Use less energy.** In every aspect of life, be conscious of energy that is being consumed that is not needed. Leave nothing on that is not being used and do not use things that require electricity unless you really need to. Unplug phone chargers and turn off surge protectors (power strips) unless they are in use. Air conditioning is one of the biggest culprits. Open windows and doors and use fans to cool your home!

**2. Use native landscaping.** Do not water daily, and employ plants that are native to your area and are used to thriving naturally with the amount of rainfall in your region. For example, if you live in the southwest US, use a drought-resistant grass species in your lawn as opposed to one that must be constantly watered.

**3. Eat less meat.** It takes 30 pounds of grain to produce one pound of meat. It takes a lot more water to grow 30

pounds of grain than to hydrate one pound of livestock! Simply be conscious of the amount of meat you consume and refrain from eating meat with every meal.

**4. Drive energy-efficient cars.** Unless you regularly require the physical capabilities of a large truck or SUV, drive a smaller, more efficient vehicle. Certainly, there is no need for a giant truck or SUV to be your around-town car. Also, look up local farmers' markets in your area. It is much more energy- and gas-efficient to buy locally raised food that has not been shipped halfway across the country or the world.

**5. Cut down on water use in every corner of your life.** Take shorter showers. Hand-wash dishes even if you have a dishwasher. If you don't have the time to spend washing dishes every night, then only use your dishwasher on nights when you are really pressed, and conserve water when you don't have to rush. Get any leaky faucets in and around your house fixed.

**6. Communicate with others about these issues.** Do not only hold these standards at home. Strongly urge your friends and the folks at your church, school and workplace to be conscious of their energy and water usage. When you enter a large public area, consider for a moment the energy required to light and cool such a building.

There are superstores that stay open 24 hours a day, seven days a week. How much energy is poured into just one of these buildings? In addition, many of these companies have thousands of locations across the country. Urge the businesses in your area to be extremely conscious of their energy and water consumption. Since each of us is part of the problem, it is our responsibility to act conscientiously for the sake of everything on our planet.

**7. Find out who is working for environmental responsibility in your community, and join them.** To learn more about these issues, you can search IPCC online [see below] and click on "assessment reports." Also, search "NOAA 1000 year report." Organizations such as Sky1 [see below under "Sources"] work directly with the IPCC and NOAA to lobby for action against climate change and to communicate with the population.

This issue is global. This issue is at hand. No matter where you live or what your socioeconomic reality is, you will be affected. The economy, education and moral issues will all cease to matter when you don't have water.

—Salif Mahamane is a recent graduate of Baylor University in anthropology. Sources: US National Oceanic and Atmospheric Administration ([www.noaa.gov](http://www.noaa.gov)), Intergovernmental Panel on Climate Change ([www.ipcc.ch](http://www.ipcc.ch)), 1Sky Education Fund ([www.1sky.org](http://www.1sky.org)), Tribune India, Columbia Water Center, Texas Climate Change Emergency, Keep Waco Green, Environmental News Network ([www.enn.com](http://www.enn.com))



# 50 Ways to Help Save the Earth: How You and Your Church Can Make a Difference

reviewed by Lauren Elder

God has called us to be good stewards of the world. In an effort to live out that calling, Christians of every denomination have joined the “go green” bandwagon, embracing eco-justice as a vital part of stewardship and discipleship.

Written by environmental activist Rebecca Barnes-Davies, *50 Ways to Help Save the Earth: How You and Your Church Can Make a Difference* (Westminster John Knox Press, \$14.95 paper, June 2009) clearly presents the connection between caring for the earth and living out one’s faith.

“Our task is to learn to reshape our lives to honor rather than destroy God’s creation,” says Barnes-Davies. The book uses climate change as a lens through which to see the ways human activity is degrading the earth, and reinforces the values of conserving resources, recycling, gardening and being content with “enough.”

This list is not intended to be a save-the-earth checklist. Quite the opposite, it is the author’s hope and prayer that you will be spiritually transformed as you endeavor to incorporate her suggestions into the life of your family, your church and your community.

“Not doing,” Barnes-Davies stresses, is just as important as doing. Knowing when to relinquish control, rest, celebrate and trust that God is caring for creation are all essential elements to her approach and result in a spirit of Christian humility, stewardship and discipleship.

The first seven chapters are devoted to these environmental issues: energy, food and agriculture, transportation, water, people, other species, and wilderness and land planning. Each chapter includes seven action items, some of which are individual, and some that are designed to encourage church and community involvement.

Practical suggestions, facts and background information, success stories, additional information sources, and relevant scripture references accompany each action item. “Walk the Talk” sections feature examples of people just like you who, together with their churches and communities, have made a difference.

The last chapter ties everything into the biblical concept of a “Jubilee” year, which occurs every 50 years. During this celebratory time, we should take time apart from the world to learn anew that we must be filled by God before we can fill any need in the world. As Barnes-Davies says, “we benefit from jubilee just as all creation does.”

Barnes-Davies adds, “These 50 steps will lead to a

deepened commitment, a habit of thoughtful living and practical action,” Barnes-Davies says. “Once we form this ongoing habit, the possibilities for further action and results are endless.”

—Lauren Elder, a native of Tucson, AZ, is a professional writing student at Baylor University and a Seeds of Hope intern.

art by Sallylynn Askins



## Resources about Water from Church World Service

Church World Service (CWS) offers a number of excellent resources about water issues. These resources can be downloaded or ordered from CWS at [www.churchworldservice.org](http://www.churchworldservice.org). Below are some examples:

- *Twice As Thirsty: Women, Children and Water* is a four-page paper describing the special burden women and children bear in getting water for their families.
- *Drinking Rain in the Occupied West Bank* is a four-page resource about how West Bank Palestinian villagers are harvesting rainwater in underground cisterns.
- *A River in Their Veins* is about the water rights of indigenous people in Bolivia, and the impact of climate change in the Caribbean.
- *Thirsty Souls & Parched Lands* is a six-page resource paper on water issues.
- *Water for All in Africa* is a four-page resource about community ownership and management of water resources in Africa.
- *Poisoned Skies, Troubled Waters* is the latest in the series on the impact of climate change on water.
- *Worship with the World: WATER* is a sampling of voices of thirsty people worldwide, alongside prayer, scripture and liturgical suggestions.

# Sand Dams Provide a Solution to Water Shortage in Kenya, Uganda

by Claire Jansen

In a country where 80 percent of the population earns its livelihood through agriculture, and more than 50 percent of export earnings are attributed to cash crops, a water shortage would be bad for business. And not just business.

A water shortage would lead to illness, soil degradation and conflict between people groups. This scenario has been playing out in Kenya, and also in many other African countries that have experienced climate changes leading to drought. Fortunately, there is a solution: sand dams.

A local Kenyan farmer, Joshua Mukasia, developed the technology of the sand dam 30 years ago, after experimenting with rainwater harvesting. Because of the nature of climate patterns, many African countries experience two wet seasons and two dry seasons each year.

During the wet seasons, rain falls and crops grow. During the dry seasons, drought ensues and crops fail.

However, Mukasia's development makes climate patterns less influential on the productivity of local farmers.

Mukasia developed a system whereby concrete dams are built across seasonal riverbeds. The riverbeds fill up during the intense rainy season and carry torrents of sand and water downstream.

Pipes built into the dam carry water into nearby aquifers, where as many as 2.6 million gallons of water can be stored at a time. The sand serves two important functions: first, it acts as a filter to the water going through the pipes into the aquifer and second, it lessens the loss of water due to evaporation during drier periods.

Sand dams continue to have a positive impact on their neighboring communities. The effects, however, have been farther-reaching than just crop restoration and cleaner water for human consumption. This new technology empowers formerly marginalized groups and strengthening social relationships within and between communities.

For women and children especially, sand dams have been a blessing. One local farmer and father of six, Titus Silu, said, "I started growing tomatoes because now we have water from the sand dams. I have paid a lot of school fees and you can see how this has helped my children."

Sand dams have also provided women with more free time, since a sand dam in the vicinity means a woman does not have to walk long distances in pursuit of water. Women can use this extra time to attend school or generate extra income for their families.

Women are even leading one organization's program, the Yang'at Water for Peace program—part of a broader Church World Service (CWS) program in Africa called the Water for All Initiative—which is building sand dams to ease water-related conflict along the Kenya-Uganda border. Because the program is meeting with such success, women are gaining more respect in the eyes of the people in their communities.

Groups like CWS that have stepped in to assist in the building of these dams mainly supply the building materials—each dam costing about US\$5,000. They then train the locals to oversee the project and maintain the dam for future generations.

—Claire Jansen, a native of Springfield, MO, is a recent graduate of Baylor University's professional writing program. Source: Church World Service ([www.churchworldservice.org](http://www.churchworldservice.org).)

## Free Resources from Seeds of Hope

You can now access 10 year's worth of *Sacred Seasons* worship packets, free of charge, at the Seeds of Hope Publishers web site. All of the back issues for Lent, Advent and Hunger Emphasis are posted in pdf form for your use. You can also find there a number of other free resources:

1. *Developing a Heart for the Hungry: A Primer for Beginning Churches*
2. Two collections sponsored by the Alliance of Baptists:
  - Speaking of Hunger: Sermons of Challenge and Hope and*
  - Hope Is in Our Hands: Lessons & Activities about Hunger for Children & Youth*
3. Several Peace Sunday services sponsored by the International Ministries division of the American Baptist Church.

To find these, go to [www.seedspublishers.org](http://www.seedspublishers.org) and click on "Worship Resources."

# Sand Water Filters Provide Affordable Way to Clean Water in Cambodia

by Leslie Reiter

Residents of Svay Rieng, a rural province in Cambodia, have been given a successful and affordable solution to the problem of accessing clean water, thus reducing the spreading of typhoid and diarrhea.

Part of a Water and Sanitation Cooperation Project by Church World Service (CWS) Cambodia, more than 1,200 bio-sand water filters have been distributed throughout 56 Svay Rieng villages. The simple filters cost a mere \$15-\$20 apiece, proving to be a realistic alternative to the building of wells and latrines, which would have involved a substantially larger amount of money.

The filters are making a drastic impact in Cambodia, where an estimated 74 percent of deaths have been a result of diseases contracted through water. According to CWS, bio-sand filters have the ability to remove most E. coli, worms, parasites, iron, manganese and other toxicants from contaminated water.

Each one small enough to easily fit in a home or community building, bio-sand filters consist of a concrete base with a layer of gravel beneath a layer of sand.

Water is poured in the top and filtered through the gravel and sand mixture, leaving a small layer of water on top of it that has trapped the water's contaminants. The clean drinking water is dispensed through a pipe at the filter's base.



In addition to providing filters, the CWS Cambodia partner also provides training for locals on how to build their own, thus spreading the benefits to neighbors and community members.

More than 400 villagers and 1,384 students at Kokir Primary School attended training sessions on bio-sand filters and sanitary practices held in Thmei Village. The project is expected to develop within 20 more cities, educating citizens in water sanitation, health and hygiene.

—Compiled by Leslie Reiter. Source: Church World Service.

## Book Teaches Children about Philanthropy

When it comes to teaching children about philanthropy, Jan Schrock knows best. *New York Times* Bestselling author and daughter of Don West—founder of Heifer Project International (HPI), Schrock has traveled around the world educating people on global poverty and hunger. Schrock recently won the Society of School Librarians International Award for her first children's book, *Give a Goat*.

*Give a Goat* follows the true story of a fifth-grade class from Maine who came together under the supervision of their teacher to raise money to send a goat to a family in Uganda. Through HPI, a person can buy for \$120 the gift of a goat, providing both nutrition and income for a family. A goat can supply up to a gallon of milk a day. Each goat also produces two to three kids a year, allowing recipients to pass on the gift to other families.

In 1944, eight heifers were delivered to Castaner, Puerto Rico, marking the beginning of the Heifer Project. Founder West's goal was to help impoverished people around the globe become self-reliant. Since then, HPI has spread to 57 different countries and helped more than 48 million people by providing livestock and training in sustainable farming. HPI places a large emphasis on education, creating many resources for teachers and young children to become involved in alleviating global hunger and poverty.

*Give a Goat* shows the impact of HPI's mission through the eyes of 10-year-olds in different areas of the world—from American schoolchildren working to collect money to a Ugandan girl attending school for the first time, both affected by the gift of giving. Not only are children educated in philanthropy by taking part in HPI's charity, they also gain extensive knowledge in subjects such as geography, business and math.

—Compiled by Leslie Reiter. Sources: Heifer International, *Children's Book Review*, *School Library Journal*. To order *Give a Goat* and other global education resources, go to [www.heifereducation.org](http://www.heifereducation.org).

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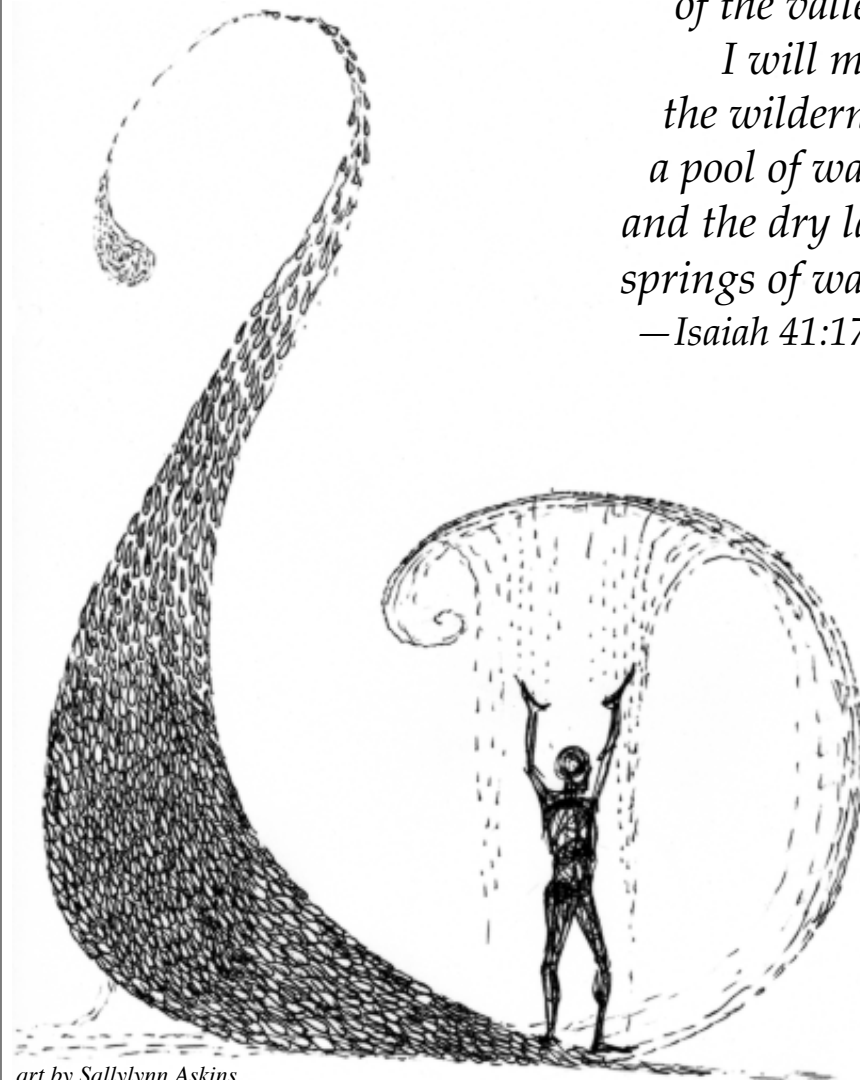
Seeds of Hope is a private, independent group of believers responding to a common burden for the poor and hungry of God's world, and acting on the strong belief that biblical mandates to feed the poor were not intended to be optional. The group intends to seek out people of faith who feel called to care for the poor; and to affirm, enable and empower a variety of responses to the problems of poverty.

#### **Editorial Address**

Seeds of Hope Publishers are housed by the community of faith at Seventh and James Baptist Church. The mailing address is 602 James

## *quotes, poems, & pithy sayings*

*When the poor and needy  
seek water,  
I will open rivers  
on the bare heights,  
and fountains  
in the midst  
of the valleys;  
I will make  
the wilderness  
a pool of water,  
and the dry land  
springs of water.  
—Isaiah 41:17-18*



art by Sallylynn Askins

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Seeds of Hope Publishers also produce *Sacred Seasons*, a series of worship materials for

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