

ENDING HUNGER ■ SAVING THE EARTH

# WorldArk

JULY/AUGUST 2007

## Integrated Farming in Vietnam

**Lester Brown on  
healing the Earth**

**Hollywood producer  
gives hope to others**



## Dear Friends ...

**By Jo Luck**  
President and CEO

**In Heifer's model of sustainable community development, nothing—and no one—goes to waste.**

**W**hen I was a young girl, my grandmother would tell me, “waste not, want not.” At the time, I didn’t fully understand what she meant. But after 15 years serving as Heifer International’s president and CEO, watching our projects expand all over the world, I’ve seen this old adage come to life. Heifer project participants

of nature, with cows, worms, ducks, rice fields and fruit trees all playing their parts. The cows eat elephant grass that grows on the edge of the rice field. In turn, the fields and fruit trees can be fertilized with the cow’s manure. Ducks and chickens feed on the worms that thrive in manure and also make their own compost. The droppings from the ducks and chickens are recycled

into the soil to keep it rich and ready to foster life. Nguyen cares for these plants and animals and uses them for nutrition and income for his family. All living things on this farm are connected and nothing goes to waste.

It’s fitting that so many Heifer project participants find success with integrated agriculture, using and reusing everything that’s available to create a continuously productive system. Where resources are limited,

Heifer farmers use nature’s assets—which are readily available, affordable and good for the environment—to become self-reliant.

In many ways, this mirrors Heifer’s model for sustainable development. Like Nguyen, we believe in tapping all available resources and reducing waste in order to build more sustainable communities. Nguyen turns manure back into his soil, keeping all beneficial organic matter on his farm. Likewise, Heifer project participants return not only livestock but also training and skills to the community. Heifer communities, like integrated farms, are enriched from within and no longer need artificial support. In Heifer’s model of sustainable community development, nothing—and no one—goes to waste.



*Jo Luck visits with Heifer project families in Vietnam, where even the children join in to help care for the livestock.*

truly take “waste not, want not” to heart. These clever and thrifty farmers know that animals and people alike work best when they work together, and that leftovers, be they food scraps, grass clippings or manure, can enrich the soil to feed new life.

Integrated farming, the practice of managing the land with economy and thrift, helps small farmers make the most of their small plots while being kind to the soil, air and water. I’ve seen these well-calibrated systems in action at Heifer projects the world over, and some of the most remarkable integrated farms are found in Vietnam.

Heifer project participant and integrated dairy farmer Nguyen Buu Chau operates a model farm in his village of Long Hoa. Here, he conducts a symphony



# PREVIEW

• United States

• China

• Vietnam

• Ghana

**WORLD ARK**  
JULY/AUGUST 2007

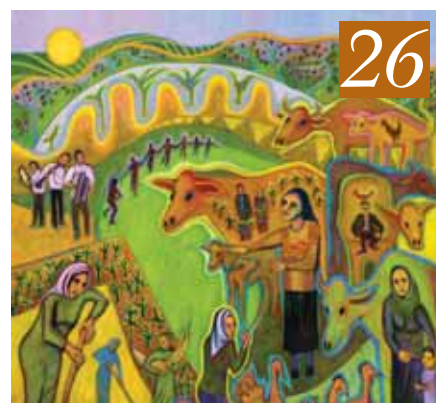
**“Art is a way to learn about other people in a way you can’t with just words.”** –Artist Betty LaDuke



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Heifer participants in Vietnam embrace a farming philosophy that helps reduce expenses and increase productivity by finding multiple uses for everything and recycling all organic matter back into the farm.

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Economist Lester Brown adds up the costs for restoring planet Earth to health. The expense in money and effort will be high, but he says there’s really no alternative.

## 26 Speaking Without Words: Stories in a Sketchbook

By Austin Gelder, *World Ark* Associate Editor

Renowned artist and Heifer supporter Betty LaDuke uses her art to communicate and educate. The paintings she creates from her sketches educate Americans about the struggles and hope of people in developing countries.

**Cover:** Women wearing *nón lá*, the traditional Vietnamese conical hats, work in the rice fields of the Mekong Delta.

**Photo by Darcy Kiefel**

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“Of Hearts and Minds”

**Q&A, May/June****After you read *World Ark*, what actions do you take to help end hunger and poverty?**

Every act begins at home. After reading *World Ark* I recommit myself to eating less and buying only what we will use. I reason that if I eat less and waste less, perhaps there will be more for others. So I eat moderately, try hard not to waste food and recycle food scraps into a compost pile. If my stomach rumbles, I remind myself that the subjects of your magazine would thrive on 1,500 calories daily. It's not much, but it's the one thing I have the power to do. Thank you for your reminder and your mission.

**Sarah Berglund**  
Chesterfield, Mo.

**Q&A, March/April****What do you think is the biggest cause of hunger in developing countries?**

I theorize that the main cause of world hunger is greed and lack of education. By that I mean Third World countries are intentionally kept that way so they can be exploited by industrialized nations. In order for that to happen they must be kept uneducated and that spells a lack of ability to fend for themselves.

All the effort in the world isn't going to solve this problem until developed nations honestly jump on the band wagon. All your efforts may ease the pain to some degree but won't solve anything. Thanks for trying though. I tip my hat to you.

**John Platt**  
Anchorage, Alaska

I just read cover-to-cover the March/April *World Ark*, and it is fantastic. As usual.

I submit my answer to the question, "What do you think is the biggest cause of hunger in developing countries?"

I believe there is a lack of knowledge about how to care for the land, what foods can be grown for nutrition and health, and how to find the resources required to be self-sustaining.

With this knowledge, not only will we eliminate hunger, but the changes brought about will provide health care and education.

I believe that is a holistic solution to the cause of hunger.

**Rosie Brown**  
Tulsa, Okla.

I just received the May/June issue of *World Ark*. The entire issue was moving, but the Haiti story and the "Life on the Border" photos called out to me. I took high school students on mission trips

to the Dominican Republic five years in a row and went to work camps for years down in the San Luis Valley of southern Colorado... Thank you for all your work, all your heart and all your accomplishments.

**David Stevenson**  
Denver, Colo.

I have just finished reading my first copy of *World Ark*. I was most impressed with your article "Planting Hope in Haiti" (May/June 2007). My wife and I have long been supporters of Heifer International, donating animals in the names of our grandchildren, but this is the first time I have been privileged to learn of your other projects.

Haiti is especially meaningful to me as I have spent considerable time there building schools in Gonaives and Limonade, near Cap Hatien. Although I am working with Ambassador Andrew Young's GoodWorks International, the work is slow because of the turmoil

*World Ark is printed  
on 30 percent post-  
consumer recycled stock,  
saving 6,264 trees  
per year and keeping  
348,000 pounds of  
post-consumer waste  
out of landfills.*



in the government, not to mention the language barrier because I don't speak French or Creole.

What I do through my organization, Global Peace Containers, is build schools, medical centers, housing and community buildings from retired international shipping containers. These buildings are extremely strong and hurricane-resistant. I have a small crew of experienced workers in Haiti who build these container buildings and instruct local people in their construction. Containers are a real resource in the Caribbean as the islands have long been a dumping ground for retired containers for most of the major shipping companies.

**Dick Martin**  
**Atlanta, Ga.**

## Q&A

**Time to nominate  
your Hero of Humanity.**

*Do you know of a person or group  
that goes the extra mile to help  
end hunger and poverty? We want  
to honor those—from everyday  
citizens to well-known public  
figures—who make a difference.*

Please limit responses to  
250 words or fewer.

Mail your response and tell us a little  
about why you responded as you did to  
the address on our masthead, or e-mail  
it to [worldark@list.heifer.org](mailto:worldark@list.heifer.org)

I found it extremely interesting that a question raised by *World Ark* was essentially answered later in the same issue in comments made by Alice Walker. Her response to "What is the best tool that we can give our children, to prepare them for the future?" is precise and accurate. "We have to disabuse them of the notion of scarcity. I think that's the most pernicious and ultimately destructive thought, that we are living in a world of scarcity. Actually, we live in a world of plenty."

Ms. Walker goes on to explain that many world leaders have taught for so long that crippling expensive defense systems are an absolute necessity and must be higher in priority than meeting health needs, supplying clean water and providing adequate food. As a result, we have built up a mentality of thinking we need to protect that which is "ours." We do that by wasting precious lives and resources in wars that are useless, obsolete and resolve nothing.

It was an unbelievably serendipitous moment when I realized that there is enough food in the world so no one needs to be hungry; it's just a problem of distribution. When we come to realize that our bloated military budget far exceeds the military expenditures of the rest of the world combined, we can gradually come to understand these expenses are not really necessary. If just ten percent of the world's military budget could be used for other purposes, we could stamp out hunger.

Gandhi was right when he said that there is enough for the world's need, but not for everyone's greed.

**The Rev. Dr. Merle G. Brouwer**  
**Clinton Township, Mich.**

### PRESIDENT AND CEO

Jo Luck



1 World Avenue  
Little Rock, AR/USA 72202  
E-mail: [worldark@list.heifer.org](mailto:worldark@list.heifer.org)

To change or remove an  
address, please e-mail  
[donoraction@list.heifer.org](mailto:donoraction@list.heifer.org)  
or call customer service  
at (800) 422-0474.

### PUBLISHER

Tom Peterson

### EDITOR

Sherri Nelson  
[sherri.nelson@heifer.org](mailto:sherri.nelson@heifer.org)

### ASSOCIATE EDITOR

Austin Gelder  
[austin.gelder@heifer.org](mailto:austin.gelder@heifer.org)

### GRAPHIC DESIGNERS

Pooi Yin Chong  
Grace Domagala-Zobkov  
John Houser

### WRITER

Jaman Matthews

### CONTRIBUTORS

Lauren Wilcox  
Kendra R. Johnson

### ADVERTISING SALES

Judith Velasco  
[worldarkads@heifer.org](mailto:worldarkads@heifer.org)  
(501) 907-2936

*World Ark* is the magazine of Heifer International, a global nonprofit working with communities to end hunger and poverty and care for the earth.

Since 1944, Heifer has helped 8.5 million families in more than 125 countries move toward greater self-reliance through the gift of livestock and training in environmentally sound agriculture. The impact of each initial gift is multiplied as recipients agree to "pass on the gift" by giving one or more of their animal's offspring, or the equivalent, to another in need.

Heifer International is a member of InterAction, the largest alliance of U.S.-based international development and humanitarian non-governmental organizations, and of Global Impact. Federal and state employees may designate gifts to Heifer through payroll deduction by entering CFC #12079. © 2007, Heifer International



## Shedding New Light on Lights

Times have changed since 1879 when Thomas Edison perfected the incandescent light bulb. Today, Edison's brilliant invention is falling into the shadows of the more ecologically sound compact fluorescent light bulb (CFL). The curvaceous newcomer consumes 75 percent less energy and lasts as much as ten times longer than traditional bulbs. This translates into reduced greenhouse emissions (since electricity is produced largely using coal and gas) and cheaper electricity bills—the average CFL bulb trims \$30 off power bills over its lifetime. The Australian government aims to phase out incandescent bulbs altogether by 2010, and the governments of the United Kingdom and California pledge to follow suit.

If you're lucky, you may just find one of these newfangled bulbs in your mailbox. Log on to [www.thelightmovement.com](http://www.thelightmovement.com) to learn about a group that's sending 1,000 bulbs to households across the United States. For more reasons to make the switch, visit [www.18seconds.org](http://www.18seconds.org).

## No Sweat

Legislation before the U.S. Congress aims to keep goods produced in international sweatshops from reaching the American market. Dubbed "The Decent Working Conditions and Fair Competition Act," the bill would bar imported goods produced in sweatshops and allow U.S. firms to sue competitors selling such products.

The International Labour Organization estimates that one in seven of the world's children are engaged in some form of labor, with 126 million working in hazardous jobs. Millions more adults, mostly women, face long work hours, substandard conditions, no health coverage and poor wages.

To learn more about this problem and find out about products you can purchase, visit [www.ilo.org](http://www.ilo.org) or [www.sweatshopwatch.org](http://www.sweatshopwatch.org). For information on companies paying just wages, visit [www.fairtradefederation.org](http://www.fairtradefederation.org) or [www.coopamerica.org/programs/sweatshops/resources.cfm](http://www.coopamerica.org/programs/sweatshops/resources.cfm).

## Gaming for Good

It all started with the United Nations Food Force ([www.food-force.com](http://www.food-force.com)), a video game that gives players a peek into the sometimes dangerous missions of the World Food Programme. The movement caught on, and now college students, gaming industry professionals and even private sector companies are joining forces to support educational video games that put players in the shoes of people in war-torn, resource-poor and underdeveloped nations.

Lots of games are now available to reflect trouble spots all over the world. To examine the conflict in the Sudan, play "Darfur is Dying" ([www.darfurisdying.com](http://www.darfurisdying.com)). For insight into the plight of Haitians, play "Ayiti" at [www.thecostoflife.org](http://www.thecostoflife.org). "Pax Warrior" ([www.paxwarrior.com](http://www.paxwarrior.com)) and "Peacemaker" ([peacemakergame.com](http://peacemakergame.com)) let players try their hands at maneuvering through Rwandan genocide and forging a peace strategy for the Middle East.





## Dirt Cheap and Durable

If terra cotta, taupe and moss top your color choices for an upcoming home makeover, a new trend in green building may interest you. Builders from California to New York are installing dirt floors indoors. Proponents say dirt retains heat to lower power bills in the winter, and it requires no heavy chemicals during installation. Penny pinchers like that earthen floors are literally dirt cheap—wood or tiles can cost as much as three times more per square foot depending on the finish.

Earthen flooring can be infused with ethnic designs in varied hues by using natural dyes and different types of dirt. And the finish—cracked or seamless—can also be naturally determined by varying the mix of clay, sand or lime in the mud mixture. Despite the benefits, without proper installation and sealing, the floors can crack or become too moist. For resources on dirt floors, check out [www.greenbuilders.com](http://www.greenbuilders.com), [www.greenhomebuilding.com](http://www.greenhomebuilding.com) and <http://caneloproject.com>.

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## The Green Thumb

### Saving Seeds, Preserving History

Pick the parent plant of your biggest, best-tasting fruits or vegetables and start your own natural selection process. Saving the seeds of the best plants in your garden is not only a great way to perpetuate a prized crop—it is also a way of preserving history.

Super-sized industrial farms and the dwindling number of community farmers mean many unique varieties of plants and their seeds are disappearing. Luckily, seed saving is an easy, free way to make sure Aunt Georgia's prized petunias and award-winning big rainbow tomatoes are around for generations to come. Here are a few tips to get you started.

1. There are two types of plants: open-pollinated and hybrid. Open-pollinated or heirloom varieties have been passed down from generation to generation and often breed true to type, which means that offspring will be nearly identical to the parent plant. Hybrids are crosses of two or more varieties. Planting seeds from a hybrid will yield inconsistent and wildly different offspring. Choose heirloom seeds.
2. Start small. Not even Darwin figured out evolution in just one season, so start with a limited number of plants or flowers. Be sure to carefully catalogue them. And when planting, make sure vegetables of the same species are kept as far away from each other as possible to avoid cross-pollination.
3. The best time to save seeds is when fruit or seed pods are mature. For tomatoes, this means overripe; for beans and peas, harvest seeds when they dry within the pod on the plant itself. For corn, harvest dried cobs.
4. After removing seeds, pods or cobs from the plant, place them on newspaper to dry in a cool, dark place for up to a week (beans may require more time). Make sure the area is free of insects and moisture.
5. Label carefully and store seeds wrapped in paper bags and sealed inside jars.

To buy heirloom seeds or learn more about preserving them, visit [www.seedsavers.org](http://www.seedsavers.org), [www.seedsave.org](http://www.seedsave.org) or [www.seedsofchange.com/digging/saving\\_seeds.asp](http://www.seedsofchange.com/digging/saving_seeds.asp).





coming full



A photograph of a person in a light-colored shirt and pants, carrying a large bundle of green plants on their back, walking through a lush green field. In the background, there is a dense line of palm trees under a bright sky.

By Jaman Matthews | WORLD ARK WRITER

IN THE MEKONG DELTA, FARMERS GROW IT,  
CHOP IT, FEED IT, SCOOP IT, COMPOST IT AND  
SPREAD IT. AND WHEN THAT'S DONE,  
THEY START ALL OVER AGAIN.

circle: integrated farming in

NAM

PHOTO BY DARCY KIEFEL



PHOTO BY DARCY KIEFEL

*Pham Van Loi, a member of the Long Hoa dairy project, houses his cows in a new, concrete-floored barn.*

**CAN THO, VIETNAM**—The trail winds between rice fields, beneath the banana-tree canopy where the sunlight dances across the ground. Water droplets cling to the elephant grass after the recent rain, as if even the plants were sweating in this humidity. Wood smoke hangs in the air, and the voices of unseen people and animals drift in on the sudden breeze. As the storm clouds retreat toward the horizon, canals and dikes and fields and orchards in a thousand shades of green stretch out around us. The people here in the Mekong Delta of Vietnam use every inch of land and water. Nothing goes to waste.

The trail makes a final turn and opens

into a bright clearing behind the low-slung house of 58-year-old Nguyen Buu Chau. Nguyen (pronounced “nWIN”) is a farmer and member of Heifer Vietnam’s dairy project in Long Hoa village. He greets us, eager to show us his farm, a model for other farmers in the village. Nguyen’s farm is small, only a couple of acres, and this small courtyard behind the house is its center.

Nguyen, like every Heifer Vietnam project participant, practices integrated agriculture. Each farm we visit in the Mekong Delta will be different—some will have cows, some goats and rabbits, some ducks and fishponds—but they all share a similar philosophy: reduce expenses and increase productivity by find-



ing multiple uses for everything—fields, crops, animals, water—and recycling all organic matter back into the farm.

Integrated agriculture is more than a philosophy. An integrated farm such as Nguyen's is a living system, a set of dynamic relationships between its many parts. Fueled by what industrial farming considers waste—especially manure—the integrated farm seeks to be a closed system, capable of continuing itself indefinitely with few outside inputs and little or no waste.

**After World War II**, industrial agriculture, with its large landholdings, expensive machinery and chemicals, marched around the world under the banner of the Green Revolution. While it has led to greater yields, especially in developing countries, it is increasingly evident that the system is unsustainable and unfair to small farmers. It is a linear system that relies heavily on external, industry-controlled resources—

inputs and wastes—and bend them back toward each other. Mimicking natural ecosystems, every crop, animal or garden in an integrated system serves multiple purposes. Where industrial agriculture might treat low fertility with purchased artificial fertilizers, the integrated farm returns by-products—manure or used bedding straw, for example—to the soil to increase fertility.

Though the name may be new, the idea underlying integrated agriculture is not, especially in Southeast Asia. Japanese farmer Masanobu Fukuoka notes in his *One Straw Revolution* that this type of agriculture—“joining animals, crops, and human beings into one body”—went on in Asia for centuries, until the mechanization of farming after the Second World War. “It was a system which emphasized the fundamental importance of compost and of recycling human and animal waste,” says Masanobu. “All organic residue was made into compost and returned to the fields.”

## INTEGRATED AGRICULTURE IS MORE THAN A PHILOSOPHY. AN INTEGRATED FARM SUCH AS NGUYEN'S IS A LIVING SYSTEM, A SET OF DYNAMIC RELATIONSHIPS BETWEEN ITS MANY PARTS.

seeds are bought from seed companies; fertilizers, herbicides, fungicides and pesticides from chemical companies; energy, in the form of gasoline or diesel, from petroleum companies. These merely pass through the farm, extracted at the end of the season and bound again for external markets. Money, material and fertility all drain from the farm. Everything that cannot be sold is viewed as waste to be removed and dumped. Manure is scooped, loaded, trucked and stockpiled, turning a natural fertilizer into a pollutant.

Integrated farming seeks to take the two ends of this straight-line system—the

In its simplest form, the integrated system is a simple circle beginning and ending with grass (or similar feed). The grass feeds the dairy cow, which in turn provides milk and manure. The milk is a source of nutrition and income for the family. The farmer returns the manure to the field to fertilize the grass.

Nguyen's system, even on his small farm, is much more complex.

### IN ONE END AND OUT THE OTHER

This courtyard is the nucleus of Nguyen's smallholding, with all of the farm's operations buzzing and whirring around it like

(Continued on page 12)

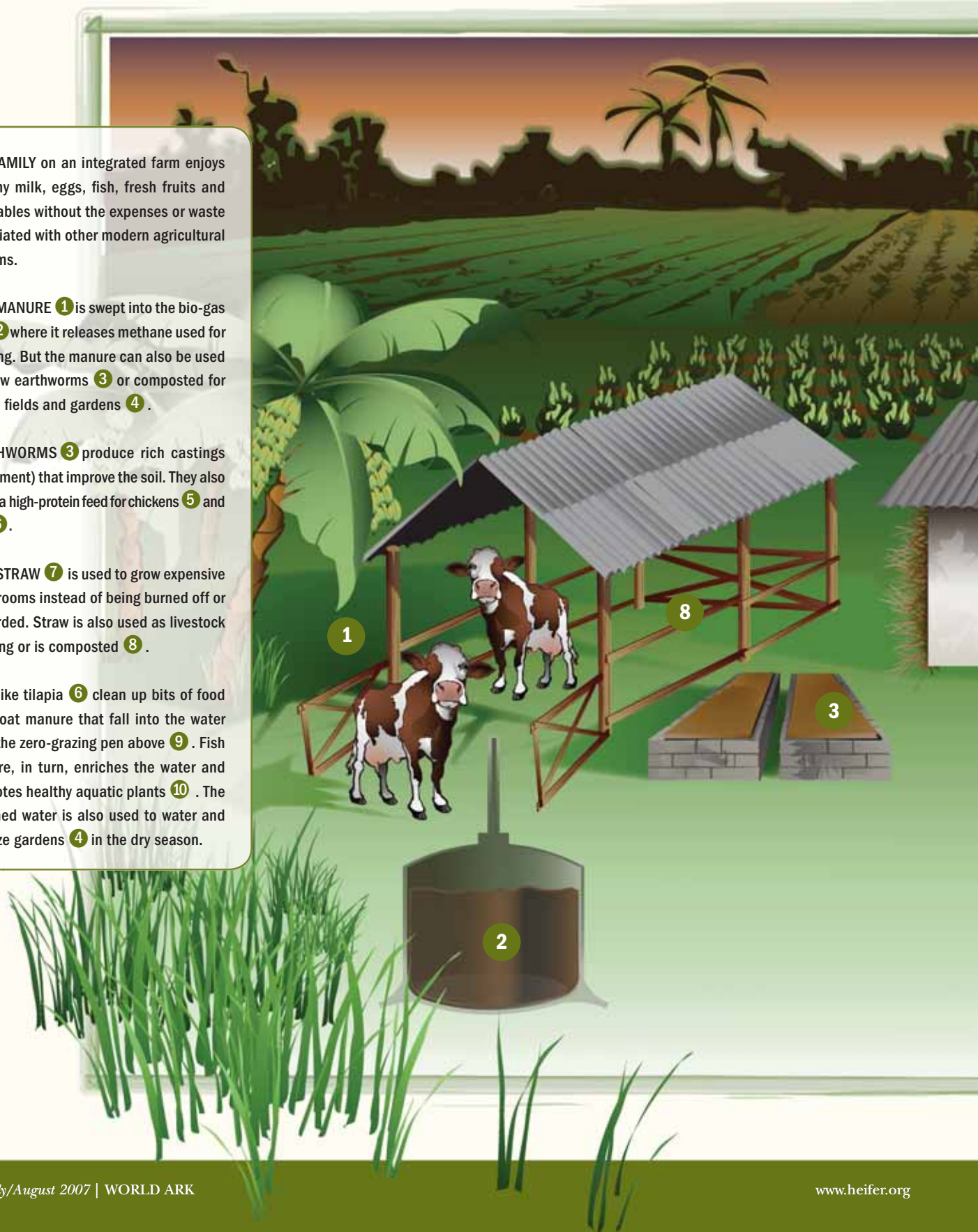
THE FAMILY on an integrated farm enjoys healthy milk, eggs, fish, fresh fruits and vegetables without the expenses or waste associated with other modern agricultural systems.

COW MANURE **1** is swept into the bio-gas unit **2** where it releases methane used for cooking. But the manure can also be used to grow earthworms **3** or composted for use in fields and gardens **4**.

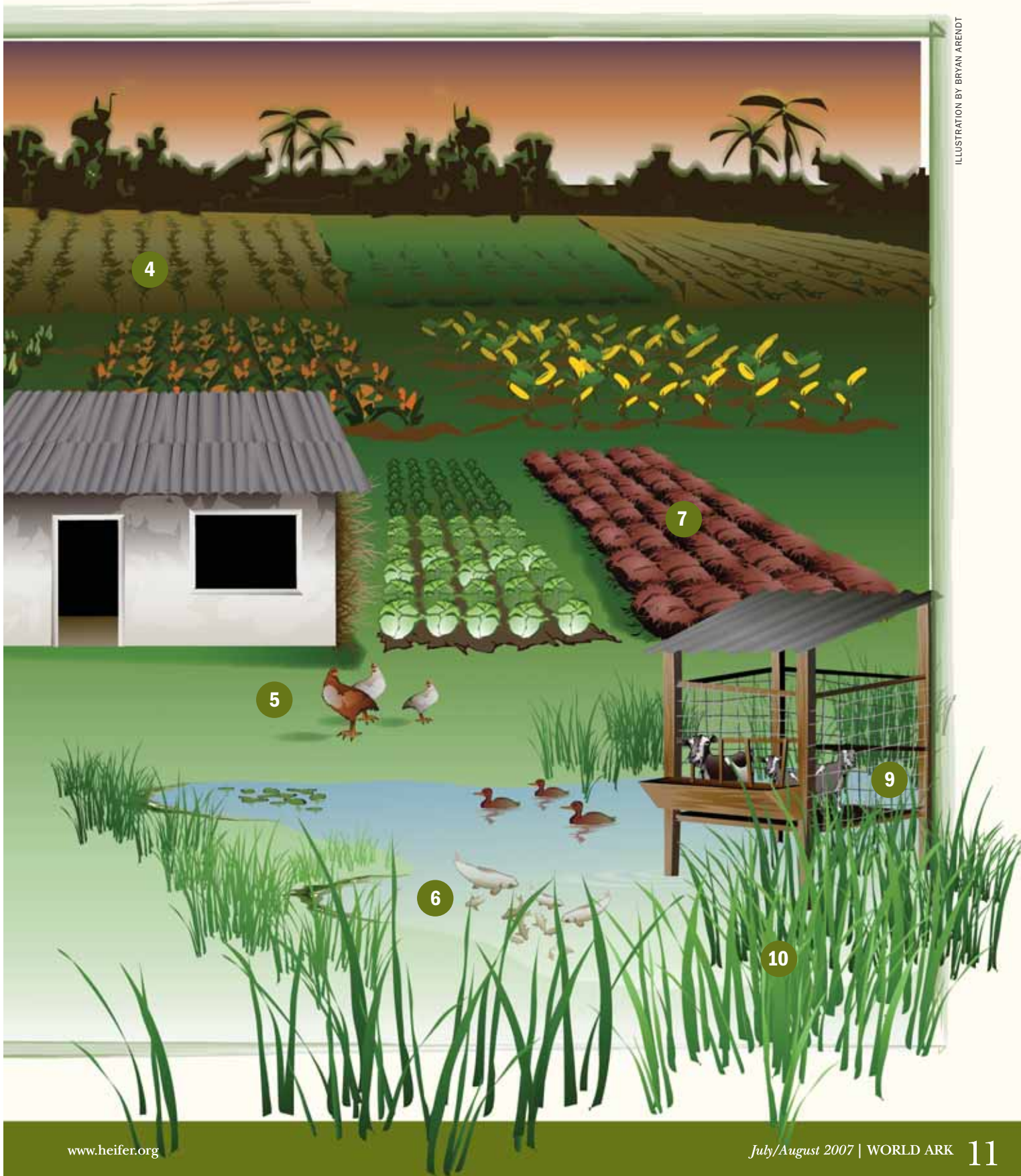
EARTHWORMS **3** produce rich castings (excrement) that improve the soil. They also make a high-protein feed for chickens **5** and fish **6**.

RICE STRAW **7** is used to grow expensive mushrooms instead of being burned off or discarded. Straw is also used as livestock bedding or is composted **8**.

FISH like tilapia **6** clean up bits of food and goat manure that fall into the water from the zero-grazing pen above **9**. Fish manure, in turn, enriches the water and promotes healthy aquatic plants **10**. The enriched water is also used to water and fertilize gardens **4** in the dry season.







(Continued from page 9)

electrons. On one side of the courtyard is the new cow barn. A few steps away is the kitchen, where the milk is strained. And beyond the house flows a canal, like an artery in an intricate vascular system. Flanking the courtyard are low, brick worm bins where the chickens and ducks like to congregate. From the courtyard, a trail leads through the fruit trees and to the rice field beyond.

The barn, with concrete floor and metal roof, replaced a dirt-floor and palm-frond-roofed stable. Nguyen's black-and-white cows are munching on elephant grass that one of his children cut from the edge of the rice field, as they do everyday.

The cow's digestive system, with its four "stomachs," transforms the grass first into a fermented mush and finally into muscle, milk and manure. Cows—along with goats, sheep, deer and llamas—are ruminants. Where most animals have a straightforward monogastric digestive system—food enters at the mouth, is

digested in the stomach, absorbed in the intestines and excreted—ruminant digestion is more complex. After a cow chews the grass, the wet ball of food, or bolus, enters the rumen, where it will ferment, aided by microbes present there. (Think sauerkraut.) This fermentation breaks down the cellulose in plants, making more nutrients available to the cow. The cow then regurgitates this partially digested bolus, now called cud, chews some more and then swallows it again. Nguyen's cows will spend up to eight hours a day ruminating.

When the cud is fully chewed, it passes through the reticulum and into the omasum, which reduces the particle size and absorbs some of the liquid, and then into the abomasum. The abomasum is the true stomach and, like the stomach in non-ruminants, secretes gastric juices to digest the food.

Even though rumination allows cows to extract more nutrients from the plant than most animals, 75 to 90 percent of the nutrients are not absorbed and are excreted. In the end, it all comes out in a neatly packaged bundle.

We call this gift cow manure. (Manure is technically the solid waste plus the liquid waste and bedding.) While all livestock manure is an excellent soil amendment and natural fertilizer, each type—cow, goat, rabbit chicken, fish—has its own particular properties. Dairy cow manure recycles crop nutrients and promotes healthy microbial action in the soil. But it also has many more uses.

**Nguyen's hand** follows the clear tube up from a valve, tracing its arc with his forefinger until it ends at

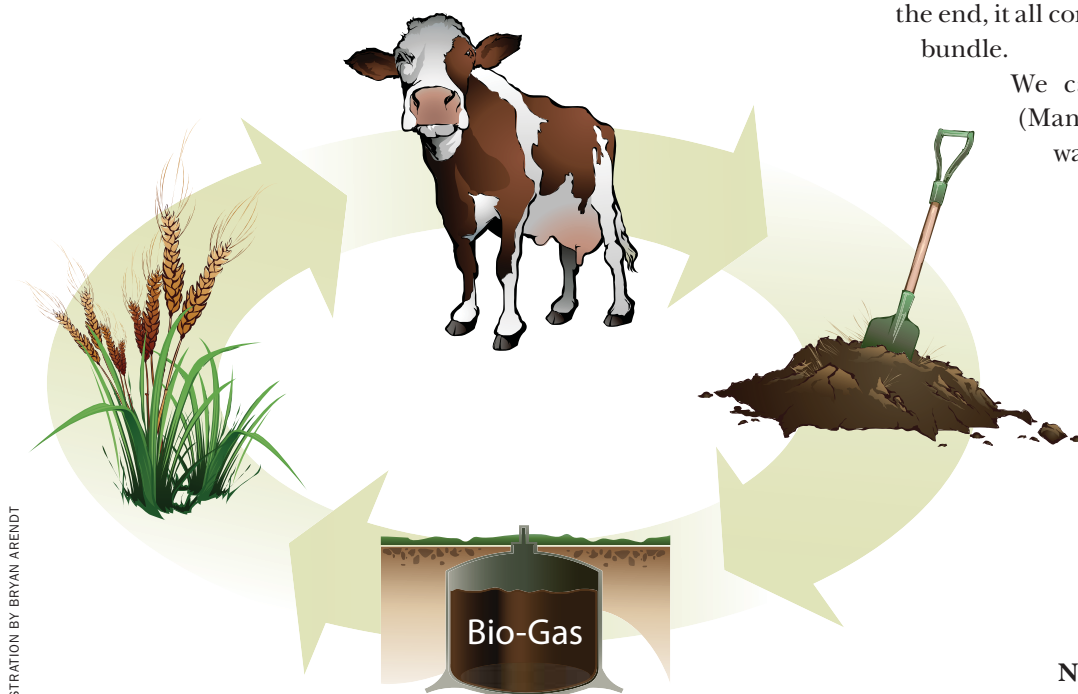


ILLUSTRATION BY BRYAN ARENDT



the stove. He stops, lights a match and opens the valve. Just as the sulphurous smell wafts up, the gas ignites and the blue flame races around the burner until it meets itself on the opposite side.

This stove does all the cooking for the household, where a few years ago, they would have cooked with a wood-burning stove, requiring more time and work (especially for the women) and created a health hazard. Nguyen, with a loan from a Heifer Vietnam revolving fund, installed a bio-gas unit below ground, which feeds methane to the stove. (For a complete look at bio-gas units, see the March/April issue of *World Ark*.)

The bio-gas unit exemplifies the genius of the integrated farm. The cow barn has a channel, several inches deep and wide, running lengthwise down the center of its concrete floor. The channel slopes gently from rear to front and disappears into a hole at the near end of the barn. This hole leads into the bio-gas unit buried beneath the courtyard. Each day, when it is time to clean the barn, Nguyen or his children sweep the manure into the middle channel, and, with a little water, wash it into the bio-gas unit, where it will slowly release methane. Only after it has released all its methane will Nguyen remove the slurry from the unit and spread it around the grass and fruit crops as fertilizer.

**Not all** of the cow manure goes into the bio-gas unit, however. Nguyen shepherds us across the courtyard to two brick structures that look like above-ground tombs, each covered by a sheet of plywood. Nguyen squats down and slides one corner of the sheet aside, revealing what looks to be dark, rich soil. But when he turns the top layer with a stick, it reveals thousands of earthworms. Manure, it turns out, is a great medium for raising earthworms.

Writing about the earthworm in 1881, Charles Darwin said, "It may be doubted whether there are many other animals

## Patties, Pies, Chips and Berries

A cow can produce 50 pounds of manure a day; a goat, 10 pounds. What to do with all of this...stuff? Everybody knows that manure is a great natural fertilizer, but it also has many other new and traditional uses. A group of Michigan State researchers recently announced new flooring made from the solid fiber in cow manure. And no, it doesn't stick to the bottom of your shoes.

### Other uses for manure include:

- ✱ **Fuel for cooking**—Many people in the world burn dried dung for cooking fires.
- ✱ **Heating greenhouses**—Collected and composted, manure gives off heat, often enough to warm a greenhouse during winter.
- ✱ **Mushroom cultivation**—Composted manure makes a good medium for growing mushrooms.
- ✱ **Bio-gas**—Manure releases methane, which can be captured and used for heating and cooking.
- ✱ **Skeet shooting**—  
Resourceful skeet shooters toss dried cow chips for target practice.
- ✱ **Mulch**—While most manure is too "hot" to be used directly around plants, goat "berries" are not.



which have played so important a part in the history of the world as have these lowly organized creatures.” (Darwin’s final scientific treatise before his death in 1882—“The Formation of Vegetable Mould through the Action of Worms, with Observations on

for Nguyen’s chickens and ducks. The poultry in turn provide eggs, meat and insect control. And of course, their manure, rich and high in nitrogen, fertilizes the garden. Nothing here goes to waste.

**WRITING ABOUT THE EARTHWORM IN 1881, CHARLES DARWIN SAID, “IT MAY BE DOUBTED WHETHER THERE ARE MANY OTHER ANIMALS WHICH HAVE PLAYED SO IMPORTANT A PART IN THE HISTORY OF THE WORLD AS HAVE THESE LOWLY ORGANIZED CREATURES.”**

Their Habits”—focused on the earthworm.) As with the cow, something wonderful and mysterious happens in the gut of a worm. The worm feeds on decaying organic matter, digesting them into even smaller particles. Gardeners the world over prize earthworm castings. The castings concentrate nutrients and make them more available to plants. Like the addition of any organic material, earthworm castings also improve the soil structure.

Once separated from the castings, the worms themselves make a high-protein feed

## OF POND AND PEN

Traveling even a short distance in the Mekong Delta can involve multiple modes of transportation. To get to Thien An Social Protection Institute, just five miles outside of Can Tho City, we take a car past the edge of the city until the paved road abruptly ends. Then we follow a sandy footpath to the edge of the canal where a boat is waiting.

The institute’s director, Tran Bach Yen, is our escort, helping us in and out of the canoe-like boat. After the short ride upstream, the boat angles into the low hanging trees, beyond which perches a handsome house. Curious children cluster on the tiled steps and poke their heads out of the classroom. These are the residents of the Thien An Social Protection Institute, and they are all Tran’s children.

Tran, in her pressed short-sleeve blue shirt and large glasses, is a compact woman. She graduated with a law degree from nearby Can Tho University, then opened Thien An Social Protection Institute three years ago to provide a safe, stable environment for street children, AIDS orphans, child laborers, sexually abused children and heroin-addicted teenagers. Fifty children, ranging in age from 4 to 19, call the institute home. The institute offers them shelter, food, education. It even offers scholarships

## Diet of Worms

There are three basic types of earthworms: those that live exclusively below ground, those that dwell in the topsoil and those that prefer to live in compost. Nguyen’s worms belong to the third category, often called manure worms and including the red wigglers familiar to home vermicomposters. They can eat half their body weight in food every day.



ILLUSTRATION BY BRYAN ARENDT



to promising young people, like one 16-year-old boy who is determined to study economics at a university.

Tran and her nine staff pick up where the government leaves off. With only limited resources, the government does not have effective programs for children at society's margins, nor does it provide the institute with any money. A private individual donated the house here, situated on just more than an acre of land. The institute also partners with Heifer Vietnam. "Heifer International helped the children here," says Tran, "by providing most of the animals here and providing vocational training." Training in agriculture, as well as television and small-motor repair, will help the teenagers transition into Asia's second-fastest growing economy.

**The younger children** press around, grabbing our hands and laughing as they lead us around the edge of their small fishpond to the zero-grazing pen housing their goats. Several black-and-white, lop-eared Bach Thau goats, a local breed whose name means "hundred grasses", poke their heads out in anticipation of food or attention.

Goats, like cows, are ruminants and can produce 10 pounds of manure each day. But goat manure differs from cow manure, both in its appearance and its structure. Goat manure looks like pellets, not patties (thus the colloquialism "goat berries"), and it is drier, which allows it to be applied directly to the soil or even used as mulch.

But the institute doesn't use the goat manure as mulch. Instead, the goats' zero-grazing pen extends over the fish-

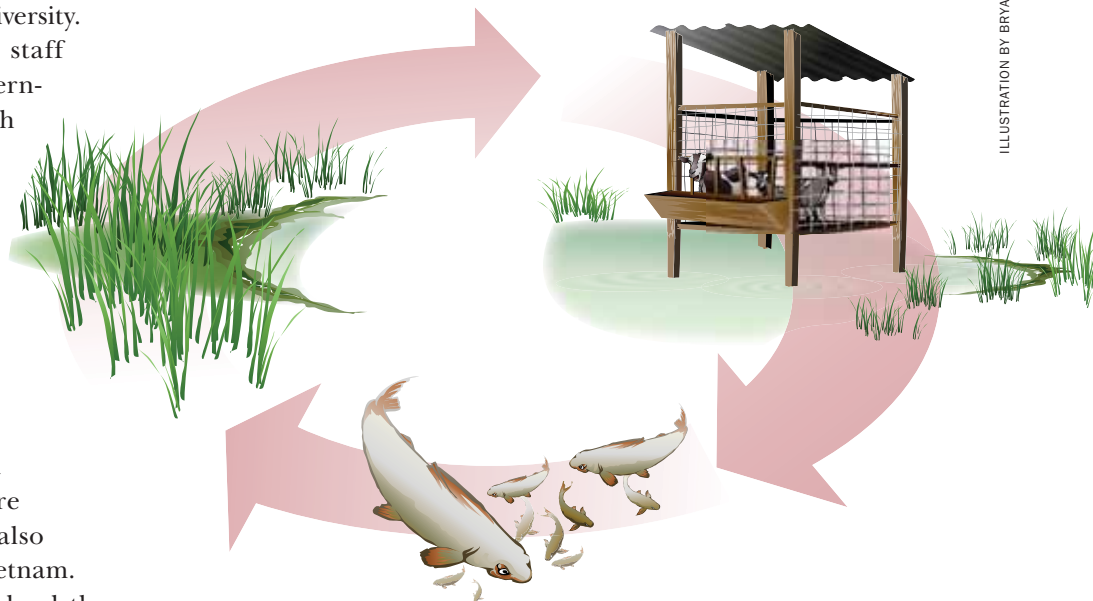


ILLUSTRATION BY BRYAN ARENDT

pond. A zero-grazing pen houses livestock that might otherwise damage crops were they to get out. Raised on stilts with a slatted wooden floor, the pen allows the goat manure pellets to fall through into the water below and feed the fish. Because goat manure contains protein, fat and carbohydrates, it makes an excellent feed for fish like the tilapia in the institute's pond.

Allowing fish to feed on the manure of other animals is not dirty or dangerous. In fact, there is a term for animals eating manure: coprophagia. Coprophagia occurs in many animals, including guinea pigs, hamsters, even gorillas. Far from being an unclean act, it is the ultimate in recycling.

The institute stocks its pond with tilapia, which naturally feed on detritus and rapidly turn waste into high-quality protein. The tilapia clean up all the undigested bits of food—grasses and grains—in the goat manure. Fish possess a simple digestive tract and so benefit from the partially digested



PHOTO BY DARCY KIEFEL

*Tran Bach Yen (right), founder and director of the Thien An Social Protection Institute, and deputy director Dao Thi Huong house, feed and educate dozens of children with Heifer's help.*

bits. The high level of bacteria in fishes' stomachs neutralizes most harmful agents. Goats are well suited for this system, since they are not susceptible to many parasites.

Tran and her children at the institute also found a way to use the fish manure. The U.N.'s Food and Agriculture Organization, in a recently published study of fish-live-stock integrated systems, concluded that, "fresh fish manure is similar in its chemical composition to other livestock manures,

and should be suitable for use as an agricultural fertilizer." At the institute, the fish manure fertilizes the pond, and during the dry season, they will use the nutrient-rich water on the garden. The fish manure also encourages healthy plant growth in the pond. One aquatic plant, water spinach, is a staple of the Vietnamese diet and can also be fed to rabbits, as it is at the Thien An Social Protection Institute.

**Rabbits** are also coprophagic animals.



But unlike the fish that feed on the goat manure, rabbits feed on their own excreta. (I use the term excreta here because it is not exactly feces that the rabbits eat.) In most animals, the cecum is a dead-end intestinal pouch with no apparent purpose. However, in rabbits it has retained its function. Small particles of cellulose-rich plant matter are diverted into the cecum where it undergoes a fermentation process, similar to what happens in a cow's rumen. Once partially digested, the material re-enters the intestine, continues its journey through the tract and is excreted as "cecal," soft clumps of partially digested food. The rabbits then re-ingest these cecals and, after passing a second time through the digestive tract, excrete the dark, firm pellets we associate with rabbit manure. The institute uses the manure from their rabbits in the fruit and vegetable garden opposite the goat pen.

**The garden**, squatting on a peninsula that juts into the fishpond, is both a source of food for the children and an outdoor classroom where they learn gardening skills and the importance of livestock in a small integrated farm. This time of year, the papayas and pomelos hang from the trees like green globes, and the breeze carries the putrid-sweet smell of ripe durian fruit. Beneath the trees, green vegetables—cabbage, cucumbers, mustard—stand in stark contrast with the dark soil.

It is here, in a corner of the garden, that we toss our fruit rinds before descending back to the boat launch. This is the compost pile where the children discard all their uneaten vegetables, fruit rinds and garden clippings. Composting works on the principal of anaerobic digestion, similar to what happens in a bio-gas unit. When organic matter, such as manure, straw, fruit and vegetable scraps, is piled high so that no air reaches the interior, it creates an environment where certain bacteria thrive. Given correct temperature

and moisture, these bacteria will slowly break down the organic matter into rich, crumbly humus. The students at the institute use the compost on plants and fruit trees, where it has beneficial properties similar to earthworm castings, continually improving the soil structure and returning lost nutrients. The compost pile is the final filter in the institute's integrated system.

### THE FINAL STRAW

A tropical storm is cycling off the coast, and thunderclouds advance from the east as we pull onto the shoulder of the two-lane highway. A 20 foot-wide canal slithers alongside the road, separating us from the village of

*Thi Nung, Heifer project member in Kien Giang province, picks vegetables and herbs from her garden.*



PHOTO BY DARCY KIEFEL



PHOTO BY DARCY KIEFEL

*Danh Viet, a Heifer project member in Kien Giang province, shows off a new crop of rice straw mushrooms.*

Dinh Hoa. Beyond the small houses, palm trees flap and rice fields stretch like mirrors toward the darkening horizon.

We cross the canal on a monkey bridge—two horizontal bamboo poles, one for your feet and another higher up to grasp for balance—so named because of the way the uninitiated scuttle across sideways, feet and hands sliding along the poles. Water hyacinth and water spinach clog the canal below and stabilize the bridge.

On the other side sits a modest house with a thatched roof, herbs and vegetables blanketing the yard. Danh Viet, 62, and his wife Thi Hai, 55, have reared seven children here. Their youngest is only 7 years old. The couple received a cow from Heifer Vietnam in January 2001, when the project here first

began. In 2004, they received the Golden Talent Award, Heifer Vietnam's highest honor, given to one farm each year. Their farm is a model of the integrated system. Their cows feed on the elephant grass grown along the rice fields, and they return the cow manure to the garden and fields. They also raise earthworms, fish and vegetables.

Danh motions for us to follow as his gray fedora disappears around the house. Covering a small square of land in back are rows of mounded straw, like miniature Quonset huts all aligned. Danh steps over a few rows, squats down and sticks his hand into one of the mounds. A second later he withdraws his hand and, holding it in front of him, opens it like a magician, revealing several mushrooms.

Rice straw mushrooms, familiar to anyone who has dined in a Chinese restaurant, grow well here and bring a good price. Growers collect the straw after the rice harvest, arrange it as Viet has done and inoculate it. In a few weeks, the first flush of mushrooms is ready to pick, and the straw will later produce a second crop.

Even when the rice straw can no longer grow mushrooms, it finds a further use. Rice straw, like all other plant material, contains lignin, a compound that strengthens the plant. Most animals cannot digest lignin or the cellulose attached to it, making the nutrients unavailable. However, some fungi, like the rice straw mushroom, are able to synthesize the lignin, freeing up more nutrients and creating an excellent fertilizer in the process.

Danh can use this straw as mulch, return it to the rice field or compost it for use in the vegetable garden. Even the seemingly insignificant, exhausted straw has a use, and one less piece is lost.

**The rain** races towards us across the rice fields, shattering their calm surfaces and dripping from palm frond to palm frond



before crashing to the ground. Danh takes shelter in the doorway of his house and

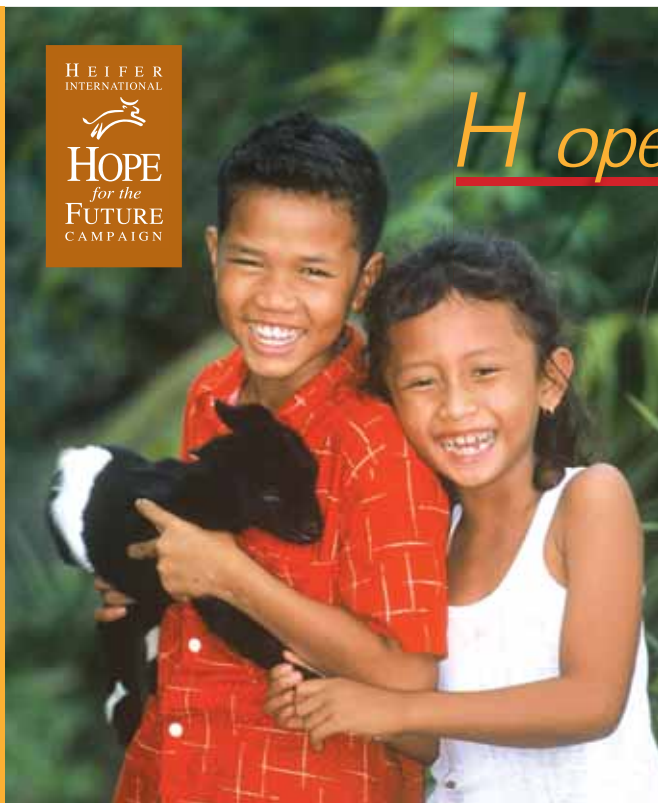
that will feed the chickens that provide the eggs. This rain will fill the pond where the

**THEIR FARM IS A MODEL OF THE INTEGRATED SYSTEM. THEIR COWS FEED ON THE ELEPHANT GRASS GROWN ALONG THE RICE FIELDS, AND THEY RETURN THE COW MANURE TO THE GARDEN AND FIELDS. THEY ALSO RAISE EARTHWORMS, FISH AND VEGETABLES.**

watches. Farmers in the Mekong Delta, where water is as ubiquitous as rice, know that the rain is part of the cycle of the farm.

This rain will water the grass that will feed the cow whose manure will grow the worms

fish feed on what the goats do not digest. This rain will flood the rice fields that provide the straw where the mushrooms will grow. And when the cycle is complete, it will all begin again. 🐾



## *Hope for the Future*

**Y**ou can make a difference in the lives of 23 million men, women and children.

**I**n its first 60 years, Heifer International helped lift 7 million families from poverty to self-reliance. To mark this anniversary, Heifer launched its Hope for the Future campaign with the goal of assisting more families in a shorter time, striving to raise \$800 million by 2010.

**A**s this date quickly approaches, your generous gift to Hope for the Future will mean improved nutrition and income for families around the world.

To find out more, call **(800) 422-0474** or visit **[www.heifer.org](http://www.heifer.org)**.



By **Lester R. Brown** | Agricultural Economist  
and Founder of the Worldwatch Institute and Earth Policy Institute

# A \$93 Billion Tab We Can't Afford **NOT** to Pay



*Terraced fields in Peru help prevent erosion.*

**T**he health of an economy cannot be separated from that of its natural support systems. More than half the world's people depend directly on croplands, rangelands, forests and fisheries for their livelihoods. Many more depend on forest product industries, leather goods industries, cotton, food processing and woolen textile industries for their jobs.

A strategy for eradicating poverty will not succeed if an economy's environmental support systems are collapsing. If croplands are eroding and harvests are shrinking, if water tables are falling and wells are going dry, if rangelands are turning to desert and livestock are dying, if fisheries are collapsing, if forests are shrinking, and if rising temperatures are scorching crops, a poverty-eradication program—no matter how carefully crafted and well implemented—will not succeed.

Restoring the Earth will take an enormous international effort, one even larger and more demanding than the often-cited Marshall Plan that helped rebuild war-torn Europe and Japan. And such an initiative must be undertaken at wartime speed lest environmental deterioration translate into economic decline.

We can roughly estimate how much it will cost to reforest the Earth, protect the Earth's topsoil, restore rangelands and fisheries, stabilize water tables and protect biological diversity.

## **REFORESTATION AND CONSERVATION**

Reforestation is an important and expensive component of the Earth's rebirth. For guidance we can look to the success story in South Korea, which over the last four

PHOTO BY DARCY KIEFEL



decades has reforested its once denuded mountains and hills using locally mobilized labor. Turkey has an ambitious grassroots reforestation program, relying heavily on volunteer labor. So, too, does Kenya, where women's groups led by Nobel Peace Prize-winner Wangari Maathai have planted 30 million trees. Based on these examples, a global reforestation program would likely cost an estimated \$6 billion a year over the course of a decade.

Conserving the earth's topsoil by reducing erosion to the rate of new soil formation or below involves two principal steps. One is to retire the highly unstable land that cannot sustain cultivation—the estimated one tenth of the world's cropland that accounts for perhaps half of all erosion.

The second initiative consists of adopting conservation practices on the remaining land that is subject to excessive erosion—that is, erosion that exceeds the natural rate of new soil formation. The initiative includes incentives to encourage farmers to adopt conservation practices such as contour farming, strip cropping, and, increasingly, minimum-till or no-till farming. The global cost would reach roughly \$16 billion annually for retiring highly erodible land and \$8 billion for adopting conservation practices—giving an annual total for the world of \$24 billion.

## RETURN ON INVESTMENT

The United Nations Plan of Action to Combat Desertification estimates it would cost roughly \$183 billion over a 20-year restoration period to restore and protect rangeland. This is a costly undertaking, but every dollar invested in rangeland restoration yields a return of \$2.50 in income from the increased productivity of the rangeland ecosystem. From a societal point



PHOTO BY HILARY DUFFY

*A young girl in the Philippines surveys the heavily deforested mountains and fields surrounding her home.*

of view, countries with large pastoral populations where the rangeland deterioration is concentrated are invariably among the world's poorest. The alternative to action—ignoring the deterioration—brings not only a loss of land productivity, but ultimately a loss of livelihood and millions of refugees, some migrating to nearby cities and others moving to other countries.

**Restoring the Earth will take an enormous international effort, one even larger and more demanding than the often-cited Marshall Plan that helped rebuild war-torn Europe and Japan.**

The restoration of oceanic fisheries centers primarily on the establishment of a worldwide network of marine reserves,



PHOTO BY RUSS POWELL

*A child steps through a cleared field in Tanzania.*

which would cover roughly 30 percent of the ocean's surface and would cost roughly \$13 billion per year.

For wildlife protection, the bill is somewhat higher. The World Parks Congress estimates that the annual shortfall in funding needed to manage and to protect existing areas designated as parks comes to roughly \$25 billion a year. Additional areas needed, including those encompassing the biologically diverse hotspots not yet included in designated parks, would cost perhaps another \$6 billion a year, yielding a total of \$31 billion.

There is one activity, stabilizing water tables, where we do not have an estimate, only a guess. The key to stabilizing water tables is raising water productivity, and for this we have the experience gained beginning a half-century ago when the world started to systematically raise land productivity. The elements needed in a comparable water model are research to develop more water-efficient irrigation practices and technologies, the dissemination of these research findings to farmers, and economic incentives that encourage farmers to adopt and use these improved irrigation practices and technologies.

In some countries, the capital needed to fund a program to raise water productivity can come from cancelling the subsidies that now often encourage the wasteful use of irrigation water. Sometimes these are power subsidies, as they are in India; other times they are subsidies that provide water at prices well below costs, as happens in the United States. In terms of additional resources needed worldwide, including the economic incentives for farmers to use more water-efficient practices and technologies, we assume it will take additional expenditures of \$10 billion.

Altogether, restoring the earth will require additional expenditures of \$93 billion per year. Many will ask, "Can the world afford this?" But the only appropriate question is—Can the world afford to not make these investments?

**PLAN B BUDGET**  
Part 2: Annual Earth Restoration

**Goal**

**Costs**

Reforestation the earth	\$6 billion
Protecting topsoil on cropland	\$24 billion
Restoring rangelands	\$9 billion
Restoring fisheries	\$13 billion
Protecting biological diversity	\$31 billion
Stabilizing water tables	\$10 billion

**TOTAL \$93 billion**

SOURCE: EARTH POLICY INSTITUTE



PHOTO BY DARCY KIEFEL

An Eastern European fisherman takes advantage of the high water quality that helps bring him good harvests.

This is the second in a three-part series of book bytes laying out the Plan B Budget. Part one, "Plan B Budget for Eradicating Poverty and Stabilizing Population" can be found at [www.earthpolicy.org/Books/Seg/PB2ch07\\_intro.htm](http://www.earthpolicy.org/Books/Seg/PB2ch07_intro.htm).

Adapted from Chapter 8, "Restoring the Earth," in Lester R. Brown, *Plan B 2.0: Rescuing a Planet Under Stress and a Civilization in Trouble* (New York: W.W. Norton & Company, 2006), available online at [www.earthpolicy.org/Books/PB2/index.htm](http://www.earthpolicy.org/Books/PB2/index.htm) 🐘



PHOTO BY DARCY KIEFEL

A Peruvian farmer uses organic methods to protect soil quality.



Writer, director and producer Tom Shadyac keeps a full schedule. While getting ready for the June 22 release of “Evan Almighty”, Shadyac took a little time to chat with *World Ark* about how he hopes to make a difference in the lives of those less fortunate. Shadyac, a supporter of Heifer International’s “teach a man to fish” philosophy, began his directing career with “Ace Ventura: Pet Detective”, which he also wrote. He later directed “Liar, Liar”, “Bruce Almighty”, “Dragonfly”, and “Patch Adams.”

He is the founder of HtoO (Hope to Others), a water company with a mission to use consumer purchasing power to effect change. Learn more about HtoO at [www.htoo.com](http://www.htoo.com).



Producer and director Tom Shadyac visits with Morgan Freeman on the set of “Evan Almighty”.

Interview by Sherri Nelson | WORLD ARK EDITOR

**WA: I’ve heard people refer to you as one of Hollywood’s good guys. What causes are you involved in?**

**Shadyac:** Lots. I have a woman who works with me named Ginny Durkin. She is a full-time liaison between me, my business and the larger world of need. So we have tons of stuff. We’re involved in a landmine museum in Cambodia. We’re involved with St. Jude’s Children’s Research Hospital. We do work for Habitat for Humanity, especially through Randy Wallace’s [writer of “Braveheart”] program, Hollywood’s Habitat for Humanity. We have an organization here called the Art of Elysium, where we’re very involved with neighboring artists who perform, do skits and sing for kids in hospitals.

We also have a water company called HtoO, Hope to Others, which is a nonprofit that we give 100 percent of

profits to charity. We’re young and inching into profits, but we’re hopeful about that. And we’re involved with Invisible Children, and we helped them set up Schools for Schools; they do great work in Uganda. There’s many more. Of course, we love you guys [Heifer International].

**WA: I know you’re passionate about environmental causes. Tell me about the environmental assessments you do for your film sets.**

**Shadyac:** Yeah, we’ve just started. First of all, I define the environment in a larger sense, not just the air we breathe or how we treat the planet or how we treat each other. It’s all about the larger environment that we create for ourselves as a home. And yes, we have begun to wake up to our impact as film crews. We have lots of trucks and air travel, and we’re trying as best we can to leave as little footprint as possible. So until we come up with alternative forms of transportation

to get all these crews around, we're planting trees and trying to zero out our carbon footprint. We're trying to recycle all of our materials, and we donate our set materials, like the wood from the ark [from "Evan Almighty"] was donated to Habitat for Humanity. We really want to leave as small a footprint as we can.

**WA: Can you tell us a bit about your latest film, "Evan Almighty"?**

**Shadyac:** "Evan Almighty" is the next chapter in the "God" series. It's a stand-alone movie, so while it's a sequel to "Bruce Almighty," it's actually a movie that's completely different. This one is rated PG, where as "Bruce" was PG-13, so you can bring anyone to watch it, from 3 to 80. The story follows Evan Baxter who was a news anchor in the first movie and he leaves the news desk to become a congressman.

He moves his family to Washington, D.C. On the first day of his job, he is told by God, our friend Morgan Freeman, to build an ark. The movie is about how it upsets Evan's life and why, and what building the ark is all about. It's a movie about needs, about what it means to change the world, about what it means to have the courage to follow those crazy notions we get sometimes to become writers or artists or to do something that everyone else tells you you're crazy to do.

**WA: Why did you personally choose to produce and direct "Evan Almighty"?**

**Shadyac:** I liked the story. It had a lot to say about what I feel strongly about. Evan becomes a congress-

man because he wants to change the world. I think many people have that kind of hope. He learns what it really takes to change the world. I won't give away what building the ark is about specifically, but he learns the true meaning [of building the ark] and how to do it. I think he starts out with a self-inflated idea of what it might be. But everything we've talked about in one way or another is kind of the undercurrent of the movie. Being good stewards of God's creation, this world we live in, being good to each other—not just treating the planet well, but each other well. All those themes are really rooted in the movie.

And I thought it would be a blast working with Steve [Correll] and Morgan [Freeman] again. Correll was just a delight in the first movie, and he's had such a meteoric rise lately. Steve is such a good guy and fun to work with. He's wonderful, just as normal as anyone I've worked with in this business. I really enjoyed it.

**WA: What lessons do you want viewers to come away with after watching "Evan Almighty"?**

**Shadyac:** First and foremost, I want viewers to have a good time. We're in the entertainment business, you know. We want people to have a good time. I hope the audience laughs a lot. There's much to take away depending on where you're standing. I can't give away the plot and twists of the movie, but I think it hopefully will make people think about how their every behavior has an impact. Everything we do, everything is really connected—there's no such thing as a little thing. This idea of changing the world—nobody really knows where to start—and this

movie will tell you where to start.

**WA: How can you use comedy to make the world a better place?**

**Shadyac:** Comedy is healing because of the action of it—endorphins are released. Once people start laughing, it creates vulnerability. And once people open up, ideas can slip in. Humor is a bridge, once you lay that bridge down, ideas can get in. I've spoken at high school graduations, and I make kids laugh for 15 minutes, then I can tell them one thing and that one thing will land. Once I told a graduating class about a quote from a movie I had seen called "Time for a New God." This rabbi was speaking and said that when the Messiah returns, he is only going to ask one question: He is going to ask to see the soles of your feet. He wants to see if you've worn them out trying to make this world a better place. That was the little seed I was able to slip in. So, I told them to go out there and wear their soles out.

**WA: What do you think Hollywood's role is in making a positive difference in society?**

**Shadyac:** I think of Hollywood as the modern day storytellers. At one time, we used to sit around the fire and tell stories after a day of hunting and gathering; prophets would come and tell parables. I think Hollywood has now taken some of that torch. We're the storytellers. We're here to entertain, and many do it with some kind of ethic. Movies are a very powerful medium, and we reach a lot of people. We tell stories, we create a connection, a bridge with people, and hopefully we can effect change that way.



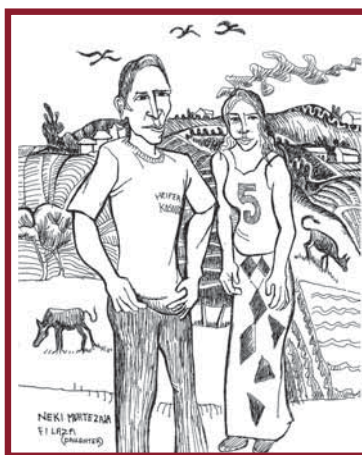


*A painting and sketches from LaDuke's travels to Eastern Europe help educate people about hunger and poverty.*



# Speaking Without Words

## Stories in a Sketchbook



By Austin Gelder | WORLD ARK ASSOCIATE EDITOR

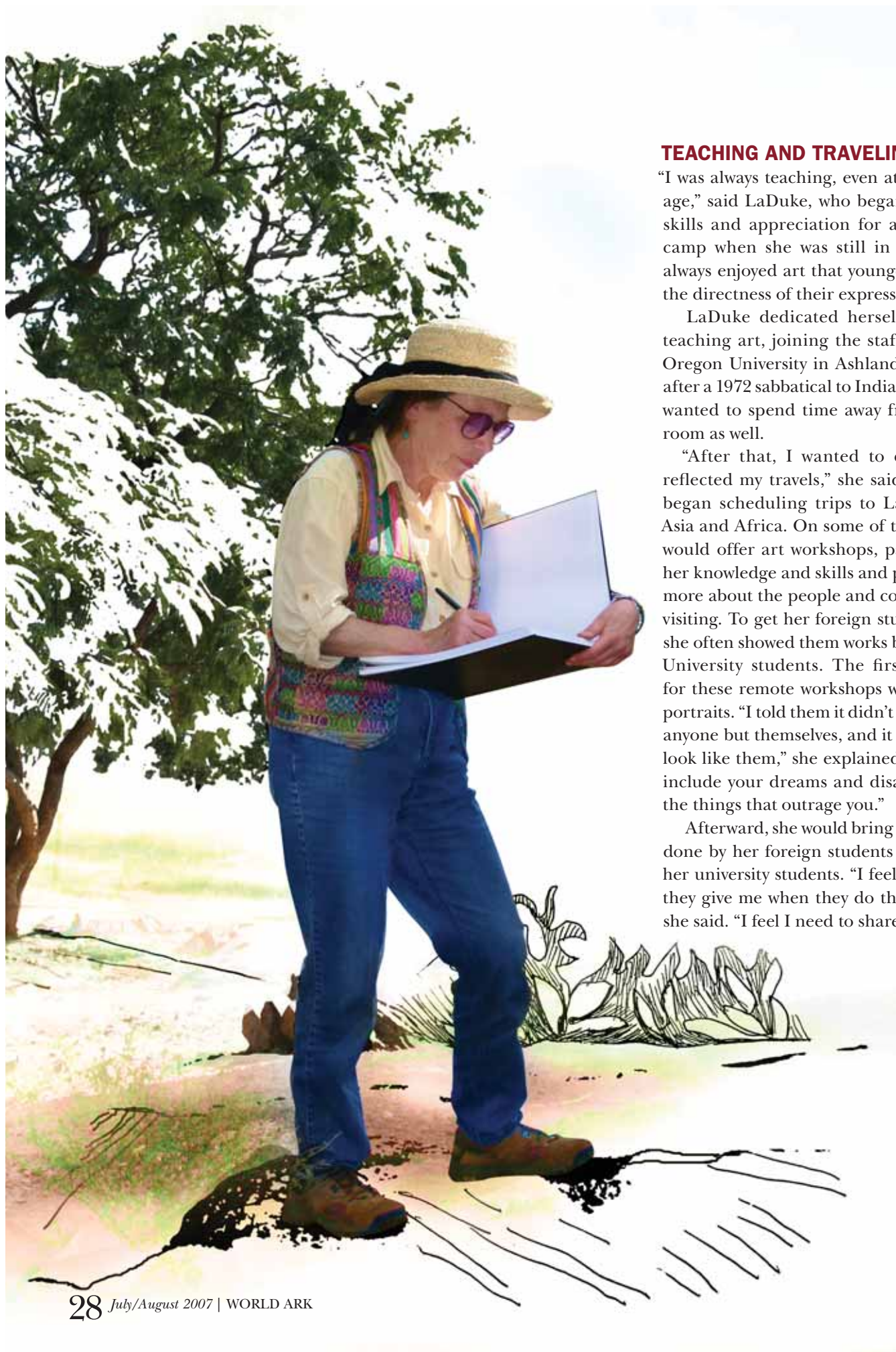
Artist Betty LaDuke rarely needs a translator when she travels. Sketching the faces she sees, recording the animals and trees in her notebook, she almost always draws a crowd peeking over her shoulder. And though she rarely speaks their language, LaDuke's message of friendship comes through each time her black pen marks the page.

Art, LaDuke explained, is "a way to learn about other people in a way you can't with just words." She learns about subjects' lives when she travels to their homes and sketches their images; those who view LaDuke's paintings learn about those lives after the sketches are transformed into fresh, oversized canvases splashed with bold lines and bright acrylics. The works celebrate cultures, people and animals the world over.

A lifelong adventurer, LaDuke focused her efforts as an artist and art educator at Southern Oregon University on tapping art's power to bridge communication gaps and open minds. Five years ago, after retiring her professorship at the university, LaDuke began lending her talents to Heifer International, traveling on study tours and creating a wealth of sketches and paintings about those trips to help spread the word about Heifer's mission and the proud, hopeful people who join in Heifer projects to improve their lives.







## TEACHING AND TRAVELING

“I was always teaching, even at a very young age,” said LaDuke, who began sharing her skills and appreciation for art at a youth camp when she was still in her teens. “I always enjoyed art that younger people did, the directness of their expression.”

LaDuke dedicated herself to a career teaching art, joining the staff at Southern Oregon University in Ashland in 1964. But after a 1972 sabbatical to India, she knew she wanted to spend time away from the classroom as well.

“After that, I wanted to do work that reflected my travels,” she said. So LaDuke began scheduling trips to Latin America, Asia and Africa. On some of these trips she would offer art workshops, partly to share her knowledge and skills and partly to learn more about the people and country she was visiting. To get her foreign students started, she often showed them works by her Oregon University students. The first assignment for these remote workshops was always self-portraits. “I told them it didn’t have to please anyone but themselves, and it didn’t have to look like them,” she explained. “But it must include your dreams and disappointments, the things that outrage you.”

Afterward, she would bring copies of work done by her foreign students to share with her university students. “I feel like it’s a gift they give me when they do these drawings,” she said. “I feel I need to share.”



## HELPING THROUGH HEIFER

In 1999, LaDuke signed up for her first Heifer study tour, a trip that marked the beginning of an enduring relationship. LaDuke found inspiration in Heifer's work, and LaDuke's art proved a great way to educate people about hunger and hope. Since then, LaDuke has gone on study tours to Africa and Eastern Europe. She comes home from each trip with sketchbooks full of images to distill and record again on canvas.

Her final painting may not be of a specific family she met or a single flower that caught her eye, but it will convey an image that stayed in LaDuke's mind after the trip was finished. "It gets to be a mixture of this cow and that cow. The paintings become a much more mythical, magical interpretation," she said.

Those works are sent out across the United States for shows at museums, galleries, universities and other spots where people can learn about the work of Heifer International. In 2005, her work was displayed at the United Nations building in New York.

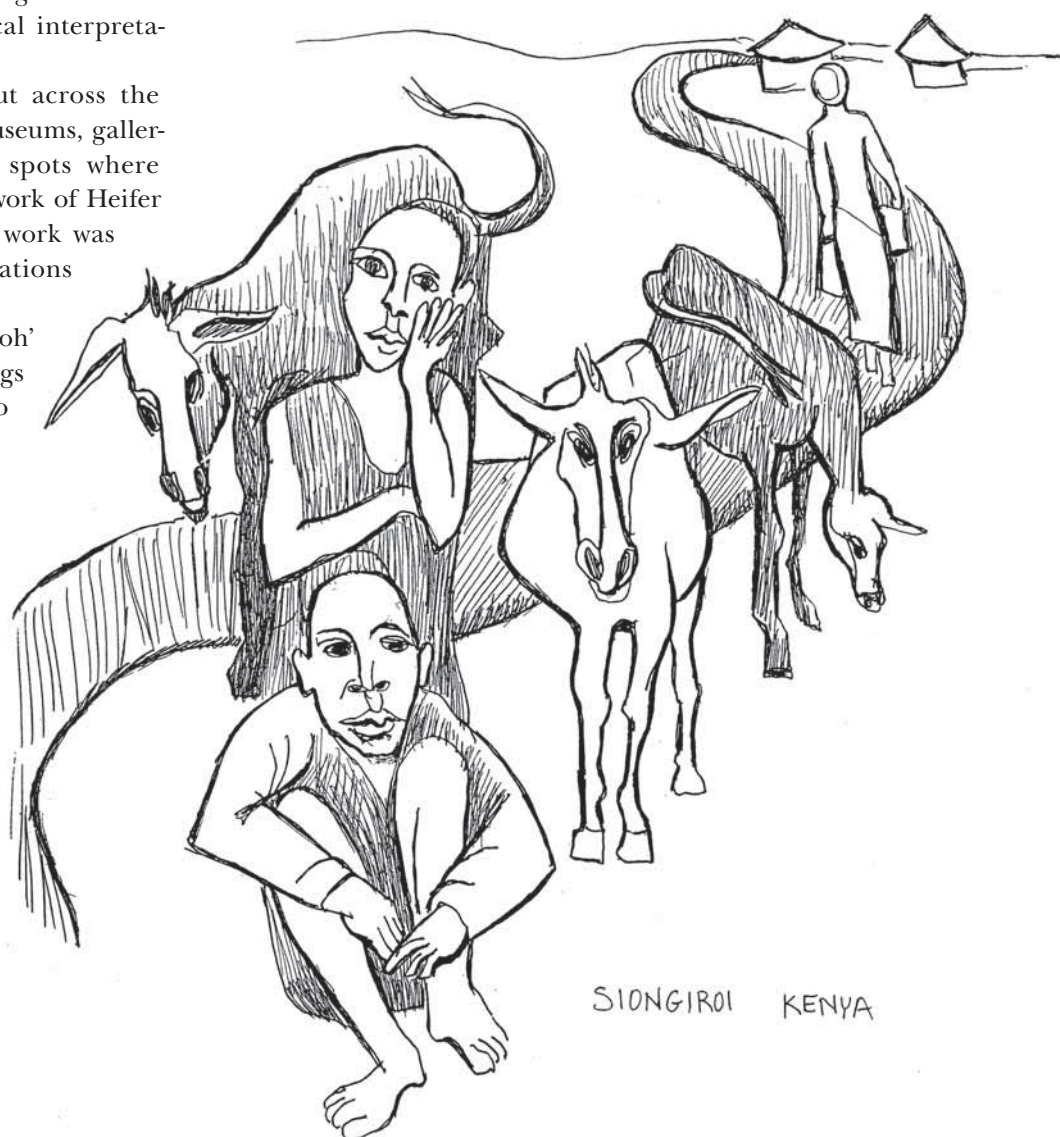
"It isn't just about the 'oooh' and 'aaah,'" she said. "Paintings have other insights that a photo can't do and words can't do."

**LaDuke loves to share these sketches as evidence that although the suffering is great, the hope is greater.**

Children's museums have proven a popular spot for the paintings, which often become a key component in an exhibit to educate young people about other cultures and the hardships in developing nations.

"What I'm finding where my work is displayed is that some museums make my work interactive," she said. Some use DVDs, flags and games to keep children engaged.

In addition to teaching those who view her art about Heifer projects, LaDuke also continues her own tradition of teaching her art skills in the places she visits. In 2006 she traveled to Zvipani Village, Zimbabwe, where she encouraged onlookers to draw along with her. The sketches produced in this sub-





Saharan village, which is ravaged by AIDS and hunger, depict crying faces and small children working in fields, but they also show healthy livestock, hearts and vegetables sprouting from the ground. LaDuke loves to share these sketches as evidence that although the suffering is great, the hope is greater. "The cup is half full," LaDuke said. "It's not just hopeless and helpless."

The Salem Art Association recently recorded LaDuke's unique contribution in a documentary of her life and work. The documentary is part of the "Preservation of Oregon's Artistic Heritage" series aimed at preserving the heritage of Oregon's prized artists. Copies of the documentary will be given to every school and library in the state.

Kathy Dinges, art education director for the Salem Art Association, spent a week in Rwanda with LaDuke to record her interactions with her subjects.



Artist Betty LaDuke shares her skills with Heifer project participants in Zimbabwe.

"Betty basically was a very careful observer," Dinges said. "She definitely interacted, but she interacted through her artwork. Once people recognize she's drawing them they get a look on their faces like they're honored."

Picking LaDuke to be featured in the documentary series was an easy choice, Dinges said. "I think Betty is a great educator because she can educate in so many ways through her work." 🐾

## Travel WITH A PURPOSE

**H**eifer International invites you to **Travel with a Purpose** by joining a Study Tour. This is your chance to meet our project partners and see firsthand how help from people like you is making an incredible difference. Travelers return home with a renewed commitment to Heifer's mission to end hunger and poverty and care for the earth.

Below is a preliminary listing for Study Tours during 2007. This is not a final list as countries may be added or removed. Many trips do not yet have tour leaders and details may not be complete. If no tour leader is listed please send your request to [studytours@heifer.org](mailto:studytours@heifer.org) and we will share trip information on your area of interest as it becomes available.



**Book Your Tour Today!**

ASIA/S. PACIFIC	AMERICAS	AFRICA	EUROPE	COMING SOON!
<b>China</b> September 2007 <b>Tour Leader:</b> Anna Lappe <a href="mailto:studytours@heifer.org">studytours@heifer.org</a>	<b>Tours Coming Soon!</b>	<b>Tanzania-Mwanza Safari</b> July 31 - Aug. 10, 2007 LAND ONLY <b>Tour Leader:</b> Charles Stewart <a href="mailto:studytours@heifer.org">studytours@heifer.org</a>	<b>Lithuania*</b> July 9 - 21, LAND ONLY <b>Tour Leader:</b> Sherry Betts, PhD <a href="mailto:sbetts@u.arizona.edu">sbetts@u.arizona.edu</a> (520) 621-9756	<b>Uganda</b> Winter - (Pending)

\* First Heifer Study Tour to this region





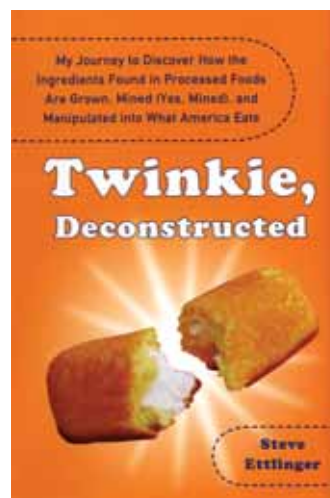
# Twinkie, Deconstructed

Reviewed by Jaman Matthews | WORLD ARK WRITER

It's amazing what passes for food these days. Consider the Twinkie. Hostess cranks out 500 million a year, but they are notorious as non-food. Stories about the long shelf life of the crème-filled sponge cake abound—Twinkies remain edible for 50 to 100 years, will outlast their cellophane wrappers and actually contain chemicals used in embalming fluid. The quint-essential junk food, they have even been used as a defense for criminal

like to remember a more innocent gastronomic time.

Ettlinger's subtitle—*My Journey to Discover How the Ingredients Found in Processed Foods Are Grown, Mined (Yes, Mined), and Manipulated into What America Eats*—is longer than some books, but gives an accurate roadmap of Ettlinger's journey. He embarked on this errand when one of his own children asked where the fantastic sounding polysorbate 60 comes from. Ettlinger hits the road



By Steve Ettlinger  
Hardcover | \$23.95  
Hudson Street Press, NY

**flour, sugar, water, high fructose corn syrup, beef fat, whole eggs, sodium acid pyrophosphate, modified corn starch, glucose, polysorbate 60, cellulose gum, sorbic acid**

behavior. Though most of these urban myths have been disputed, former President Clinton did include a Twinkie in the National Millennium Time Capsule.

In his latest book *Twinkie, Deconstructed*, Steve Ettlinger tracks down each ingredient in the startlingly yellow snack cake, using the ingredients list as his table of contents. The witty structure and fluffy subject matter set the book apart from *Fast Food Nation* and *The Omnivore's Dilemma*, recent best sellers that also explore where our food comes from. Though this book is not as well written as its celebrated predecessors, the spongy protagonist of *Twinkie D* will appeal to a large audience—both the foodies who love to hate processed fare and the foodies who

with Twinkie in hand and ticks off ingredients from the list like national parks on a map.

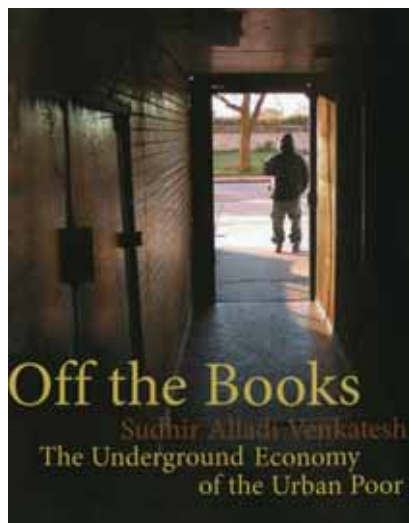
He first visits a mill where wheat is processed into flour. A benign beginning. But in quick succession, he traces the chlorine used to bleach the flour and the vitamins and minerals added by mandate of the Food and Drug Administration that result in enriched flour.

From the enriched bleached wheat flour to the FD&C Red No. 40, Ettlinger travels the United States, visiting fields and factories, mills and mines (all three of the leavening agents in Twinkies are derived from rocks). Along the way, he meets food scientists proclaiming that an amalgamation of chemicals and colorings “becomes a food when you decide it is a food.” From a Nebraska egg-laying

facility and Florida sugarcane plantation to multinational corporations and laboratories, he traces the histories of the ingredients.

If, as Ettlinger suggests, “Twinkies’ ingredients are the products of a rural-industrial complex, made from a web of chemicals and raw materials produced by or dependent on nearly every basic industry we know,” then he proves to be an able guide. But while the book may be a road trip of discovery and information, at times it feels like an opportunistic jaunt through a country presently obsessed with food.

*Twinkie, Deconstructed* is, like its subject, light and enjoyable (especially on a lazy afternoon with a tall glass of milk). But in an era when food writing is the genre *du jour*, its shelf life is undetermined.



By Sudhir Alladi Venkatesh  
Hardcover | \$27.95  
Harvard University Press

**I**t's hard for most of us to imagine life in the urban ghetto with little education, only an odd job here and there and a perpetually empty wallet. Looking in from the outside, we can hardly understand how so many people manage to keep clothes on their backs when even pocket change is hard to find.

And then there are the other troubles heaped on forgotten city blocks where prostitutes and hustlers populate the streets. Life here brings with it a constant scramble to keep the children safe while still getting along with the drug dealers or gang members living next door.

In 1995, Harvard economics student Sudhir Venkatesh set out to understand just how the urban working poor maneuver this maze of danger and deprivation each day. Now a professor of African American studies at Columbia University, Venkatesh spent years among the people of a poor black South Side Chicago neighborhood, interviewing them, befriending them

# Off the Books

## The Underground Economy of the Urban Poor

Reviewed by Austin Gelder | WORLD ARK ASSOCIATE EDITOR

and chronicling the unusual means they use to get by. The resulting book is a mix of anecdotes, observations and well-reasoned arguments that help those of us tucked safely in the middle class understand why urban ghettos operate as they do.

With a wry mix of analysis and empathy, the writer lays out not only the how but the why for the underground transactions that keep the urban poor afloat. By cultivating relationships with the people he would write about, Venkatesh grew to understand why so-called “shady dealings” are often more appealing to members of this community than the low-wage jobs,

keeping that included almost everyone who called Maquis Park home. This hush-hush network allowed residents to work, eat, live together and sell their goods and services in nontraditional and not always legal ways.

“Through it the local doctors received home-cooked meals from a stay-at-home down the block; a prostitute got free groceries by offering her services to the local grocer; a willing police officer overlooked minor transgressions in exchange for information from a gang member; and a store owner might hire a local homeless person to sleep in his store at night, in part because a security guard was too costly.”

**The resulting book is a mix of anecdotes, observations and well-reasoned arguments that help those of us tucked safely in the middle class understand why urban ghettos operate as they do.**

public assistance and other income sources on offer. As a result, his book shows readers why so many of the urban working poor, feeling snubbed by banks, employers and other legal avenues toward economic independence, turn to off-the-books work that puts them on the wrong side of the law and further separates them from the mainstream.

Venkatesh gave the neighborhood he studied the pseudonym of “Maquis Park” to protect its identity. Here in this ten-block section of the city he found a complex underground network of buying, selling, hiring and peace-

Venkatesh found that all players showed a great tolerance for the illegal dealings of one another, based largely on community and family ties and the mutual understanding that everyone has to make a living somehow. Mothers who sold soul food meals under the table worked in a block club alongside other mothers who kept their children fed with money earned through prostitution. Although the degree of illegality varied, these women all accepted each other and the paths they took to survive.

Preachers were often the ones choreographing the delicate dance of

mediating between gangs and residents when the tenuous peace of the streets was disrupted. "But because they have done this surreptitiously," Venkatesh writes, "sometimes taking the law away from the police and putting it into their own hands, they risk further alienating themselves from the wider world. Because they are implicated in the very dangerous and destabilizing activities they are trying to address, they can never really show themselves to those in the social mainstream—philanthropists, advocates, employers and so on—who would otherwise find their work courageous and worthy of acknowledgement and reward."

The prose in *Off the Books* becomes redundant at times, and the overall organization could use some work. Still, for anyone who's ever wondered how people survive on nearly nothing in neighborhoods that seem long-abandoned by a strong police presence, outside investments and other signs of hope, Venkatesh offers some eye-opening answers.

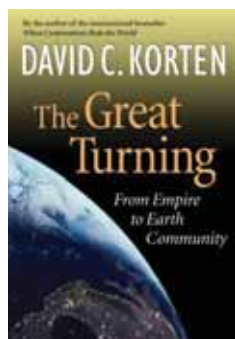
Fans of *Off the Books* may also want to read Venkatesh's first book, *American Project: The Rise and Fall of a Modern Ghetto*, in which he explores the community structure, moral code and history of the Robert Taylor Homes, a public housing complex in Chicago.

# Two Goats Are Better Than One!



Do you want your gift to help twice as many families receive animals and training? More than 13,000 companies will match their employees' contributions to Heifer International. To find out if your employer is one of them, go to:

[www.heifer.org/matching](http://www.heifer.org/matching)



## **The Great Turning: From Empire to Earth Community**

By David Korten  
Berrett-Koehler  
Publishers | \$27.95

From the author of *When Corporations Rule the World*, this new book is a call to action challenging us to dismantle the inequities and injustices that exist around the world.



## **World Changing: A User's Guide to the 21st Century**

Edited by Alex Steffen  
Abrams | \$37.50

A nearly 600-page green guide on changing the world, this hefty book tells us "we don't have to destroy the planet or impoverish other people to live well."



## **Low Impact Living www.lowimpact living.com**

An online reference site for freecyclers, organic gardeners and others looking for green practices and products to help them lighten their impact on the Earth.



# Grasscutters in Ghana

## The Little Animals That Could

By Elizabeth Mayang Elango | HEIFER WEST AFRICA PROGRAM OFFICER

For many people who live on the outskirts of Accra, Ghana's capital city, life is difficult. The dirt roads that lead to the suburb of Ablekuma are littered with trash. People on the street weave expertly between cars and bicycles, dodging the open gutters by the roadside. Hungry animals look for morsels of food among the garbage. There is said to be a lot of radiation in the air from a nearby power plant, and even though the government has declared the area unfit for people to live in, it is the only affordable living area for many low-income families.

In 2001, Teye and Charity Ocansey became members of the Ablekuma Grasscutter Group here and joined the Grasscutter Production for Environmental Conservation and Poverty Reduction Project implemented by Heifer Ghana. The project centers on the grasscutter, a large rodent that's a popular protein source in many West African nations. Traditionally these animals grew in the wild and were hunted with traps, poison baits or bush fires, all of which



Grasscutters, rodents indigenous to West Africa, provide high-quality protein and are easy to raise.

sell an average of 15 grasscutters a month, earning up to the equivalent of \$20 for each animal. The income has allowed them to open a small store and buy a vehicle to improve their business.

The success of this grasscutter project is particularly

**The success of this grasscutter project is particularly good news in Ghana, where most meat is imported and sold at high prices.**

where detrimental to people and the environment. Today, people are learning how to easily and inexpensively raise grasscutters in captivity.

When the project began, 120 families received five grasscutters each, along with training in animal husbandry, HIV/AIDS prevention and care, bushfire prevention and enterprise development. As the project progressed, the original participant families passed on animals to an additional 240 families.

Today, the Ocanseys have more than 200 grasscutters in cages in a room attached to their house. They

good news in Ghana, where most meat is imported and sold at high prices. The locally grown grasscutter meat is fresher and has a higher protein to fat ratio and higher mineral content than beef and chicken.

The Ablekuma Grasscutter Group is expanding, buying parcels of land to grow feed that sustains the animals during the dry season. They've also established an office and are adding value to grasscutter meat by processing it into minced meat, corned meat, smoked meat and sausages. This is bolstering their incomes by as much as 30 to 40 percent.



# Cooking with the Sun

## A Bright Idea in China

By Austin Gelder | WORLD ARK ASSOCIATE EDITOR

The ancient art of Asian cooking is getting a new twist at many Heifer project sites with the introduction of solar cook stoves in China. Geared toward reducing reliance on firewood and preserving the pristine headwaters of many of Asia's largest rivers, solar stoves offer a clean alternative to fire pits and traditional stoves.

Heifer China is promoting the solar stoves mainly in the sunny and mountainous northwestern part of the country in Qinghai Province, an ecologically delicate region where many of the continent's largest rivers originate.

"There it is very dry with plenty of sunshine," said Fan Bo, communication and networking officer for Heifer China. With so much sunshine, solar stoves can boil a kettle of water in about 20 to 30 minutes.

**Solar stoves offer a clean alternative to fire pits and traditional stoves.**

It's lucky the weather in Qinghai Province works so well for solar cook stoves because the environment in this high region on the Tibetan Plateau can hardly withstand more pollution caused by smoke and the production of electricity, Fan Bo said.

"The environment is very fragile, it's very weak," he said. "Once it's damaged it is not easy to recover."



*Heifer project participants in the Chinese highlands harness the power of the sun to cook without polluting.*

Solar stoves are lightweight and easy to transport, which make them ideal for Heifer project partners with nomadic lifestyles.

Solar cook stoves are growing in popularity, but there are drawbacks. Cooking can be done only during daylight, and buying a solar stove can be a major expense for families

with limited means. Also, because the technology is so different from traditional cooking methods, it takes some getting used to.

Still, the Heifer China staff thinks solar stoves are a solution worth pursuing.

"It saves energy, and it saves trees," Fan Bo said.



# Heifer Wins Award for Gender Equity

By Erin Simpson | HEIFER INTERNAL COMMUNICATIONS INTERN

**H**eifer International's commitment to gender equity was recently recognized with the Mildred Robbins Leet Award. The Leet Award was presented to Heifer at InterAction's Forum on Thursday, April 19, 2007, in Washington, D.C. According to the award letter, "InterAction salutes Heifer International for its leadership in promoting policy change and demonstrating how to advance women's empowerment."

Mildred Robbins Leet's commitment to philanthropy began during World War II when she volunteered as an air-raid warden and nurse's aide. She went on to help found United Cerebral Palsy and serve on the Women's Advisory on Poverty in the U.S. Office of Economic Opportunity. She was also

involved in the development of the International Peace Academy. In 1979, Leet and her husband Glen focused their attention on the poorest of the poor with the establishment of Trickle Up, a nonprofit international organization designed to provide the seed capital and training necessary to launch small businesses.

In 2006, Trickle Up helped launch 10,162 businesses in 14 countries. In recognition of Leet's dedication and contribution to raising awareness of gender issues, InterAction, a group of 168 nonprofit U.S.-based international development organizations, created the Mildred Robbins Leet Award



Martha Hirpa, director of Heifer's gender equity program, receives the Leet Award.

in 1995. This year's Leet Award focuses on breakthroughs in women's empowerment in gender equality in the context of alleviating poverty and effective development.

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[www.hungerMovement.org/quiz](http://www.hungerMovement.org/quiz)

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# GOOD GAME

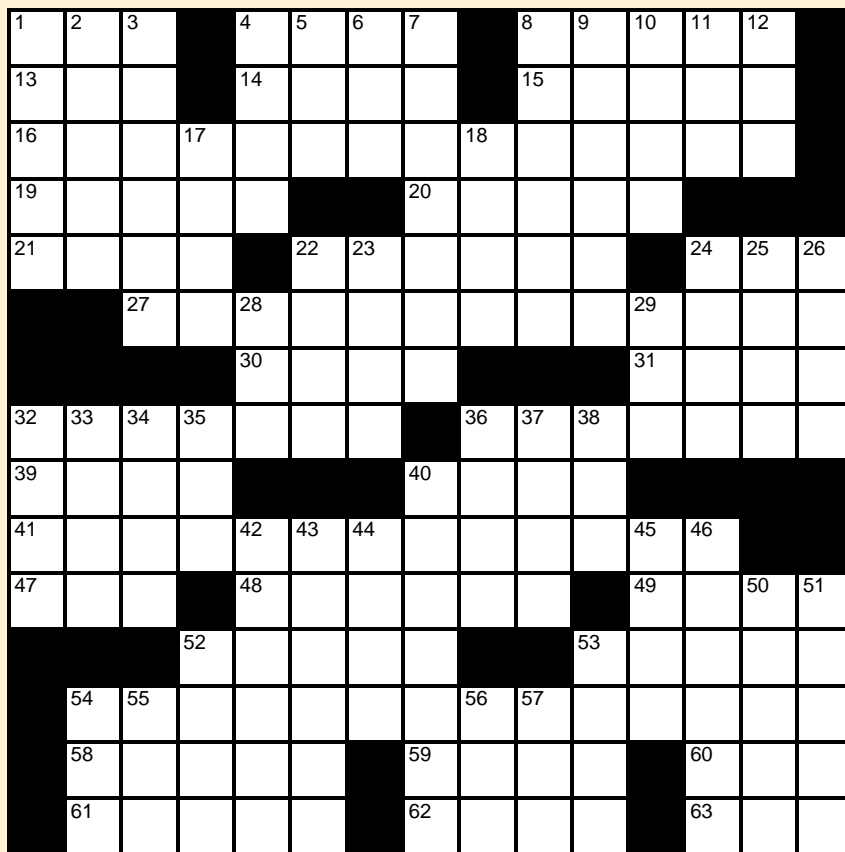
The Honorable Vic Fleming, a long-time friend of Heifer International, graciously donated his talent in preparing this Heifer-themed crossword. Judge Fleming is a writer and a law professor, as well as author of two books and hundreds of articles. His crosswords have appeared in the *New York Times*, *Games Magazine*, *Simon & Schuster Puzzle Books* and other publications. He appeared in the 2006 documentary "Wordplay," which also featured a song that he wrote. In June of 2007, he was inducted into the Arkansas Writers Hall of Fame.

## ACROSS

- 1 Opposite of NNE
- 4 Long distance \_\_\_\_
- 8 Boston basketball pros, informally
- 13 Russian space station from 1986-2001
- 14 Sheriff Andy Taylor's son, in '60s TV
- 15 Keep from happening
- 16 Puzzle subject's address in Little Rock, Arkansas, since March 2006
- 19 Suez, Panama or Erie
- 20 Capital \_\_\_\_ tax
- 21 Punt or try a field goal
- 22 28 Verdi works
- 24 "What you \_\_\_\_ is what you get"
- 27 Puzzle subject, familiarly
- 30 Junkyard dogs
- 31 \_\_\_\_ vera
- 32 Puzzle subject's founder
- 36 What donations to puzzle subject traditionally buy for hungry people
- 39 "Acoustic Soul" singer India. \_\_\_\_
- 40 Oscar Madison, e.g.
- 41 Second word of puzzle subject's formal name
- 47 Distress call at sea
- 48 Enter carefully
- 49 Lunch or dinner
- 52 Easy \_\_\_\_
- 53 "\_\_\_\_ Lane" (Beatles song)
- 54 Puzzle subject's goal, briefly
- 58 Physically weak
- 59 Pump \_\_\_\_ (lift weights)
- 60 A little Italian number
- 61 Singer Terrell
- 62 Examines closely
- 63 Is not out of

## DOWN

- 1 Painter's wear
- 2 New York's Mount \_\_\_\_ hospital
- 3 Monkey \_\_\_\_
- 4 \_\_\_\_ as a cucumber
- 5 Follower of Mar.
- 6 \_\_\_\_ Abner



**Solutions on page 50**

- |   |  |
|---|--|
| 7 Concerns of a CFO, maybe                          | 34 Minor details that might get picked |
| 8 Beluga delicacy                                   | 35 Itsy-bitsy                          |
| 9 "But still ..."                                   | 36 Et ____ (and others)                |
| 10 Camera's eye                                     | 37 "High ____" (1952 western)          |
| 11 Capote nickname                                  | 38 Son of, in Arabic names             |
| 12 Sault ____ Marie                                 | 40 Metal marble                        |
| 17 ____ Forest University                           | 42 Dog paddle again                    |
| 18 "Modern Maturity" publisher                      | 43 City near Vesuvio                   |
| 22 "Just the Two ____" (1981 Grover Washington hit) | 44 Region of Saudi Arabia              |
| 23 Hardly coy                                       | 45 Prayer ender                        |
| 24 Actress Ward                                     | 46 Feature-____ film                   |
| 25 Branch of biol.                                  | 50 The end of ____                     |
| 26 Dog days in Dijon                                | 51 Harps' cousins                      |
| 28 See 56-Down                                      | 52 Comic Sandler                       |
| 29 Paper ____ (common copier malfunction)           | 53 Groan causers                       |
| 32 Banquet platform                                 | 54 Baby newt                           |
| 33 River connected by canal to the Tiber            | 55 Grp. that sticks to its guns?       |
|   | 56 With 28-Down, solid carbon dioxide  |
|   | 57 Break ground?                       |



# World Ark Market

## A. ONE WORLD, ONE FAMILY BOOK

A picture is worth a thousand words...Bring the world to your family with this award-winning collection of inspirational quotes and photographs featuring Heifer International's projects and participants.

**#NB0703 Softback \$5.00**

## B. FAITH THE COW

Share the story of Heifer's beginnings with the tale of how Faith the Cow brought hope and healing to families in Puerto Rico. Written by Susan Bame Hoover and illustrated by Maggie Sykora.

**#NB0705 Hardback \$16.00**

## C. BEATRICE'S GOAT

Teach your children about the world around them with The New York Times best-selling children's picture book *Beatrice's Goat*, a story about how the gift of a Heifer International goat changed the life of a little girl, her family and her entire community. Written by Page McBrier and illustrated by Lori Lohstoeter.

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**#NB0700S Softback \$7.99**

## D. HEIFER HOPE BLEND

A Fair Trade Certified™ organic coffee created by Green Mountain Coffee Roasters®.

**#NGHH04 Whole Beans 12 oz.bag \$8.69**

**#NGHH14 Ground Beans 12 oz.bag \$8.69**

## E. HEIFER PORTRAITS NOTECARDS

Enjoy the uplifting photographs of Heifer's "Portrait" notecards. Photography by Darcy Kiefel.

**#NN0014 Set of 16 \$11.00**

## F./G. HEIFER NOTECARDS

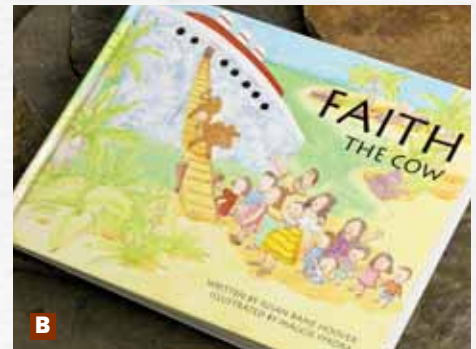
Artist Betty LaDuke's colorful portrayals of Heifer projects in Uganda and Rwanda.

**#NNR004 G. Rwanda Set of 12 \$8.00**

**#NNU004 H. Uganda Set of 12 \$8.00**



A



B



C



D

## H. HEIFER WATER BOTTLE

Get your eight glasses a day in style with a Heifer water bottle. Each .6 liter bottle is crafted from a glass-like, non-porous polycarbonate material that prevents leaching. Use your bottle again and again to help ease landfill overflow caused by disposable cups and bottles. Specify yellow, pink, purple, aqua, orange, neon or blue when ordering.

**#NW0006 \$6.00**

## J. HEIFER MUG

Heifer's coffee mug is a daily reminder that it is possible to end hunger and poverty.

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H



J



E



F

G

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K

#### K. ARK T-SHIRT

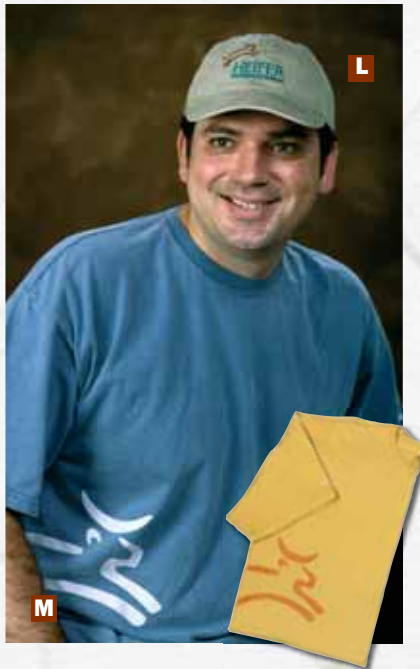
Bring a little happiness to your life with a vibrant Heifer Ark T-shirt, depicting animals spreading joy to the world. White, 100% cotton.

#NS4700 Child XS-L \$12.00  
#NS4700 Adult S-XXXL \$15.00

#### L. HEIFER BALL CAPS

Relaxed front 100% cotton. Available in Stone or Khaki. One size.

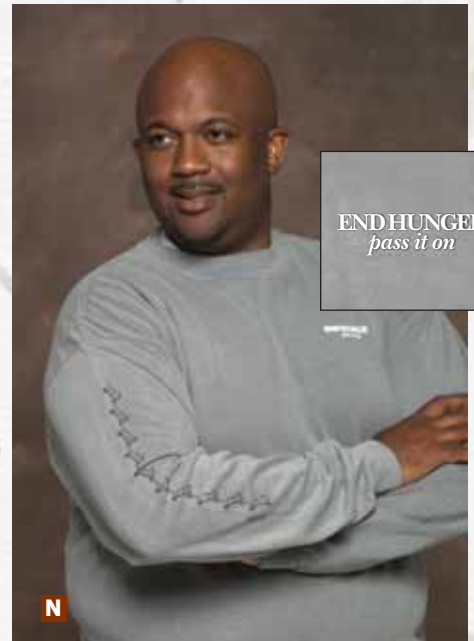
#NS4000 \$10.00



M



P



N

END HUNGER  
pass it on

#### M. "COWING AROUND" T-SHIRT

Available in Gold and Blue, 100% cotton.

#NS4900 Adult Gold S-XXL \$15.00  
#NS4900 Adult Blue S-XXL \$15.00  
#NS4900 Child Gold XS-L \$12.00  
#NS4900 Child Blue XS-L \$12.00

#### N. "END HUNGER: PASS IT ON" T-SHIRT

Gray, 100% cotton, long sleeves.

#NS5100 S-XXL \$20.00

#### O. "COW THAT SAVED THE EARTH" T-SHIRT

Black, 100% cotton.

#NS4800 Adult S-XXL \$15.00

#### P. SAGE ADVICE: END HUNGER T-SHIRT

Embroidered with the Heifer logo. Light Green, 100% cotton.

#NS5000 Adult long sleeves S-XXL \$26.00  
#NS5000 Adult short sleeves S-XXL \$22.00

#### Q. HEIFER TIES

100% silk ties adorned with the Heifer logo.. Available in Blue and Red.

#NT001400B

Blue Tie \$25.00

#NT000400M

Red Tie \$25.00



Q

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# A Mother's Life of Hunger

## A Daughter's Gift of Hope

Lauren Wilcox | WORLD ARK CONTRIBUTOR

When Vera Franco was a child growing up in rural Mississippi, she would watch as her mother poured bacon grease and fried chicken drippings into the tomato sauce she had made for her family's pasta dinner. While it may not have been a traditional recipe—her mother's family came from a small village in Italy—it made the sauce last longer. And in its thrift and resourcefulness, it was something her mother's heritage had taught her nonetheless. That's why Franco and her friends made a memorial gift to Heifer International in her mother's honor.

Franco's mother, Carmella Franco, was born in Vicksburg, Miss., where her family had settled in the late 1800s, but

in 1910 was taken back to Italy with her siblings when her mother became ill. Delayed from returning to the U.S. by the start of WWI, Vera's mother ended up spending most of her childhood in abject poverty in Italy. "She used to tell us stories of starving," Franco says. "She said she used to steal bread from hogs that she fed, and hide it in the bosom of her dress, for her and her siblings to eat."

At age seventeen, at the end of WWI, Carmella and her brothers were brought back to Mississippi, through Ellis Island, by Franco's grandfather. Her years in Italy had taken their toll: she had very little schooling, and was severely malnourished. But she also, says Franco, spoke two languages, and was intelligent despite her lack of formal schooling. "She was deter-



Vera Franco's mother, Carmella Franco.

mined to make a better life for herself," says Franco.

She married Franco's father, and the couple began to scratch out a living in the rural South, doing whatever it took to get by. It was often rough going. Recalls Franco, "My father told me that one year, he sold an entire year's cotton crop for \$25." They raised chickens and a small vegetable garden for food. "My father was the original organic farmer," says Franco. They raised cows, she says, to sell for money, not to eat. "We ate a lot of pasta and beans and hot dogs."

Throughout, her mother's pluck and resourcefulness stretched a thin budget as far as it could possibly go. Franco recalls her mother making pasta the old-fashioned way to save money, rolling out the dough over a broomstick and laying it over a clean sheet on the bed to dry. There were pecan and pear trees on the plot of land that



Vera Franco (R) with parents Pete and Carmella and sister Anna Marie.

(Continued on page 42)



(Continued from page 41)

her parents were able to buy, and the pears were canned, the pecans painstakingly collected by her mother. “Even when my mother could barely walk,” Franco says, “she would pick up pecans, scraping away the leaves and searching for each and every nut. And although we hated doing it, my sister Anna Marie and I had to help.”

But Franco’s memories of her childhood are most notable not for hardship but her parents’ spirit of generosity. “If anyone came to our door begging,” says Franco, “and many did, my mother always fed them. At Thanksgiving and Christmas, she made extra amounts of food which we took on huge trays to the poor people she knew in rural Mississippi.”

One of Franco’s most vivid memories of those lean years was bread that her mother insisted be on the table at mealtime. “It wasn’t necessarily to eat,” says Franco. “When I told her I couldn’t see the point, she said that it meant we weren’t going hungry.”

When Franco graduated high school, her mother opened a small store in her garage, selling “a bit of everything,” like sodas and Moon Pies, to pay Franco’s way through college. Now a practicing psychotherapist, Franco says she began contributing to Heifer after learning about the women in Heifer’s projects “struggling to feed their families and survive.”

“In Italy, my mother lived with an element of hopelessness that I cannot begin to understand,” she says. “And yet when my sister and I were growing up she worked hard and used every resource available to her to provide us with food, shelter, and schooling. How can I do less than my best to help others?”

## Students Honor Heifer with Award-Winning Donation

By Kendra R. Johnson | WORLD ARK CONTRIBUTOR

Students at Crystal Lake High School may take a slightly irreverent approach to fundraising, but the result is earning them plenty of respect for their hard work. The 2,000 students in the Crystal Lakes, Ill., school set their sights on donating one Heifer animal per class as part of a National Honor Society project. Each class named its animal with light-hearted monikers like “Dolly Llama” and “Meat Bags” the water buffalo.

The result is no laughing matter: the Crystal Lake National Honor Society chapter raised \$10,000 this past December alone. A year earlier students raised \$7,000, a feat that guaranteed the group the 2005 Outstanding Service Project Award from the National Honor Society.

“It was a huge success, and I think our school learned the joy of giving through the project,” said faculty member Lori Ratliff. “They also became educated about poverty



Caitlin Joseph updates the money raised at Crystal Lake South High School.

around the world.”

Crystal Lake students first made fighting hunger and poverty a priority three years ago when two juniors raised \$100 for Heifer. Today, their commitment remains strong.

“Students really enjoyed the fundraising for Heifer,” Ratliff said. “I think it will be a legacy at the school.”

# “Rhodeo” Lassoos Money for Heifer

By Kendra R. Johnson | WORLD ARK CONTRIBUTOR

Greek fraternities normally conjure up images of wild parties and messy dorms like those immortalized in the 1978 film “Animal House.” But in Corvallis, Ore., home to Oregon State University, fraternities like Alpha Gamma Rho are bucking the norm. Four years ago, the philanthropy chair of the agricultural fraternity created an annual fundraiser for Heifer International. Sophomore Jeff Sherman describes the Alpha Gamma “Rhodeo” as a fun-to-watch alcohol- and drug-free event that the public loves.

Modeled after the Ag Olympics held at colleges around the United States, Rhodeo contestants form 25 teams of six people each to battle it out in sack races, milk chugging, swing dancing, nail driving and hay bale bucking. Each team contributes \$25 to participate, and tickets costs \$3 each. Proceeds for Heifer totaled almost \$2,000 for the fourth year running.

Alpha Gamma Rho members, many of them agriculture majors, are all required to do 45 hours of community service. Heifer has become

Rho’s charity of choice. “Heifer International is a great cause that works hard to help people with gifts of agriculture; their values are closely related to Alpha Gamma Rho’s,” said Sherman, who is serving this year as the fraternity’s philanthropy chairman. Because of its Rhodeo fundraiser, the fraternity won the Oregon State University’s Philanthropy of the Year Award for the last two years, promoting an entirely different image for Greek letter organizations. “It is an event we will be doing for years to come,” Sherman said.



“Rhodeo” fans cheer on competitors raising money for Heifer International.



# Two-Hawks Helps Heifer Spread Its Wings

By Kendra R. Johnson | WORLD ARK CONTRIBUTOR

For some people, giving of oneself is second nature. For musician John Two-Hawks, it is first. Two-Hawks recently discovered new ways to keep his Native American culture alive and connect to other nations around the globe through Heifer International.

"I first found out about Heifer International at Thanksgiving," said Two-Hawks, a renowned flutist and member of the Oglala-Lakota people. It was just after his friends and family completed a tradition of placing a single kernel of corn on their dinner plates and reflecting about the world's hungry. His mother-in-law then asked if she could distribute some brochures about Heifer. Two-Hawks was immediately intrigued. "Everything about Heifer International appealed to us, especially 'passing on the gift.' Heifer International is finding creative ways to feed and heal people around the globe while taking care of the environment and joining together the human race," Two-Hawks said.

Just months later, Two-Hawks was asked to perform at the building dedication for Heifer International's headquarters in March 2006, sharing the stage with former President Bill Clinton and renowned economist Jeffrey Sachs. Since then, he continues to discover ways to promote Heifer through his own artistic and living history activities.

Two-Hawks' roots as a performer date back to age 6 when he learned his first instrument: his voice. From there he picked up the acoustic guitar, the mandolin, piano, drums and finally the cedar flute, the instrument for which he is most famous. "The cedar flute came into my life and was like an old friend. As soon as I put it into my hand, I could play and began incorporating it into my living history programs at museums and universities," he said.

Two-Hawks incorporates Heifer into his concerts, the annual retreats he organizes and his CD sales. His three recent benefit concerts

in Eureka Springs, Ark., raised \$2,000 for Heifer International. And Two-Hawks continues to nurture his ties with Heifer, donating a dollar for each sale of his Peace on Earth Christmas CD.



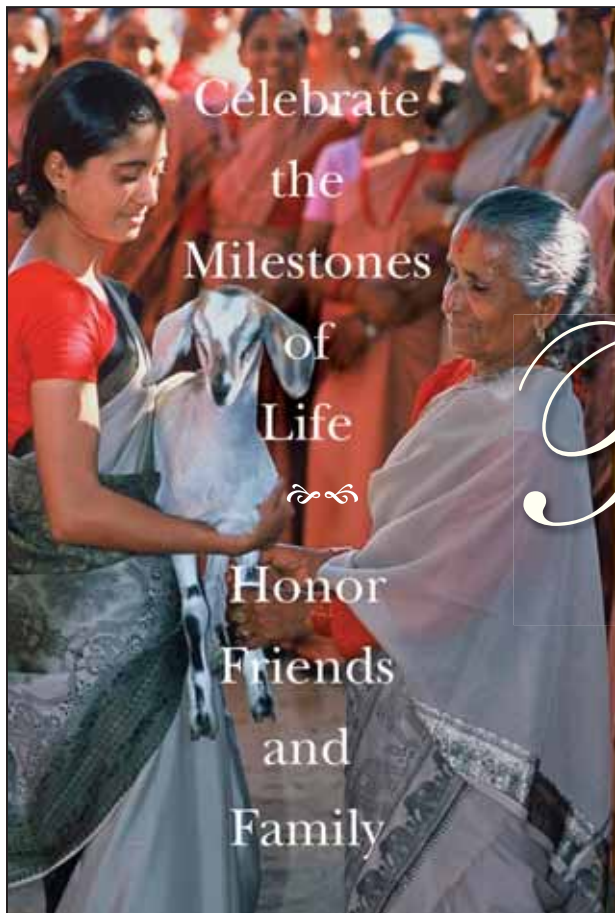
*"Heifer International is finding creative ways to feed and heal people around the globe while taking care of the environment," said flutist and activist John Two-Hawks.*

## Fun with Fundraising

*Do you have a great, unique fundraising idea?  
We'd love to hear about it.*



Drop us a line at  
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The Heifer Gift Registry works like any other gift registry.  
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It's the perfect way to help others  
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**Team Heifer**  
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## Change the world with a little imagination and a few clicks!

Create your own Team Heifer  
online donations page.

### Organize a fun fundraiser:

Organize a walkathon or a marathon

Have a party or start a book club

Have a craft fair or a sewing bee

Or just about anything else you can imagine

**Then ask friends, family and  
colleagues to donate online.**

*Help end global poverty and hunger by  
supporting Heifer International.*



Visit [www.heifer.org/team](http://www.heifer.org/team)



## THE HEIFER CALENDAR



### CERES CENTER

#### FIELD TRIPS

Learn about Heifer and the Ceres Education Center.

#### GLOBAL VILLAGE

Build problem-solving skills and learn how to help your environment and the world with this overnight experience.

#### MEETING FACILITY

Have your meeting or gathering "down on the farm" and learn about Heifer's mission.

### HEIFER RANCH

#### GLOBAL GATEWAY

**July 9-10**—A 24-hour experience teaching participants what it is like to live in poverty. Ages 12 to 18; An accompanying adult required.

#### SUMMER ACTION

**August 5-10**—A week-long program combining the Global Gateway and Heifer Challenge programs with service activities. Ages 12 to 18; An accompanying adult required.

#### FROM BEES TO HONEY/ BARN REPAIR

**September 30-October 5**—A week-long service program that combines either fall honey harvesting or barn and animal pen repair with educational activities such as a village meal. Age 18 and older.

#### LIVESTOCK HEALTH CARE

**October 7-12**—A week-long service program that combines daily livestock chores and fall livestock health checks with educational activities. 18 years and older.

#### ALTERNATIVE SPRING BREAK

Commit to serving others through interactive learning, community building and work projects in this five-day program. Sixth grade and older.

#### FIELD TRIPS

Students learn about Heifer's work and how livestock can improve nutrition and income. Pre-K and older; two-hour program.

#### CULTURAL CONNECTIONS

Experience a taste of Heifer project participants' daily lives by preparing a meal using their ingredients and resources. Fourth grade and older; three-hour program.

#### HEIFER CHALLENGE

Build teamwork and problem-solving skills by using globally themed challenges to learn about world hunger and environmental issues. Sixth grade and older; half-day to full-day program.

#### GLOBAL EXPLORERS

Learn how everyday choices affect our global community ecologically, culturally and geographically. Fifth to sixth grades; two-day program.

#### GLOBAL CHALLENGE

Participants gain a deeper sense of their commitment to each other, their communities and the world. Sixth grade and older; two- to three-day program.

#### GLOBAL PASSPORT

Immerse yourself in an experience that will connect you to the realities of poverty and hunger and to our global community. Ninth grade and older; three- or four-day program.

#### CORPORATE CHALLENGE

Learn and development skills such as teamwork, problem-solving, communication and leadership.

#### ADULT SERVICE JOURNEYS

Learn the value of serving others through interactive learning and work projects. Age 18 and older; five-day program.

#### VOLUNTEERING

Learn, share and grow while becoming a vital part of our work to

end hunger and poverty and care for the Earth. Age 18 and older.

#### CONFERENCE CENTER

Our conference facilities provide a peaceful place that encourages awareness, reflection and growth.

### OVERLOOK FARM

#### SUMMER DAY CAMP

**July 2-August 24**—Day sessions running Monday through Friday. Activities include service projects, cultural activities, environmental programming and education on world hunger and poverty. Ages 6 to 16.

#### HARVEST FESTIVAL

**September 29-30**—Features children's activities and a horse-drawn hayride to "pick-your-own" pumpkins.

#### HARVEST THYME PROGRAM

**October 7-12**—A week-long program that combines hunger education with service activities and farm chores.

#### GLOBAL GATEWAY

**May through October**—Spend a day and night in Overlook Farm's Global Village. Sixth grade and older.

#### FIELD TRIPS

Groups learn more about Heifer's work and Overlook Farm with a video, guided tour and hayride. All ages welcome.

#### H.O.P.E.

Groups learn about Heifer's work and mission by touring our Global Village and farm, participating in educational activities and eating a meal at one of our Global Village sites. Fifth grade to adult; Half- and full-day programs.

#### MULTI-DAY PROGRAMS

Service learning programs where groups enjoy daily livestock chores, service projects and

experiential education exploring hunger and poverty issues. Sixth grade to adult; two- to five-night programs.

#### DROP-IN GUESTS

Overlook Farm is open for drop-in visitors year-round. We feature international sites in the Global Village and more than 20 species of farm animals. Picnics welcome!

### HEIFER FOUNDATION

#### PLANNED CHARITABLE GIVING SEMINARS

**October 16-19**—Heifer Foundation Conference at the Heifer Ranch, Perryville, Ark. Learn how planned charitable giving can help you, your loved ones and a world in need. Led by Foundation President and CEO Janet Ginn. Open to the public.

For more information, visit [www.heiferfoundation.org](http://www.heiferfoundation.org) or call (888) 422-1161.

### INFORMATION

#### CERES CENTER

Ceres, Calif. (877) 841-7182  
[cerescenter@heifer.org](mailto:cerescenter@heifer.org)

#### HEIFER RANCH

Perryville, Ark.  
Ranch Events (501) 889-5124  
[ranchevents@heifer.org](mailto:ranchevents@heifer.org)

#### OVERLOOK FARM

Rutland, Mass. (508) 886-2221  
[overlook.farm@heifer.org](mailto:overlook.farm@heifer.org)

#### HOWELL NATURE CENTER HEIFER GLOBAL VILLAGE

Howell, Mich. (517) 546-0249  
[HCNC@howellnaturecenter.org](mailto:HCNC@howellnaturecenter.org)

*All learning center locations are open year-round for drop-in visitors. You may also schedule a field trip for your group.*

## THE HEIFER CALENDAR



### HEIFER UNIVERSITY PROGRAMS

**August 16-19, 2007**  
**BASIC COURSE AT THE MENNO**  
**HAVEN RETREAT CENTER, IN**  
**TISKILNA, ILL.\***

**September 27-30, 2007**  
**BASIC COURSE**  
**AT HEIFER RANCH\***

**October 18-21, 2007**  
**BASIC COURSE AT THE NEW**  
**WINDSOR CONF. CENTER,**  
**NEW WINDSOR, MD.\***

**November 1-4, 2007**  
**HEIFER U 201 AT HEIFER**  
**RANCH\*\***

**February 7-10, 2008**  
**HEIFER U 201 AT HEIFER**  
**RANCH\*\***

**Heifer U Program Cost:**  
**\$225/person**

(This includes all meals, lodging,  
 program fees and transportation to  
 and from the airport when appropriate)

*For more information on the programs above, contact Rex Enoch at [rex.enoach@heifer.org](mailto:rex.enoach@heifer.org)  
 or call (501) 907-2855.*

*The Heifer Ranch is located near Perryville, Ark.*

\* Basic Course-Heifer Overview

\*\* This is a "post-graduate" program designed for individuals already familiar with Heifer's work.  
 It focuses on a more in-depth exploration of current global issues.

### *Mark Your Calendars Now!*

#### **July 11—World Population Day**

World Population Day marks July 11, 1987,  
 when the world's population hit 5 billion.

For more information visit the World  
 Population Day website at  
**[www.unfpa.org/wpd/](http://www.unfpa.org/wpd/)**.

#### **August 26—Women's Equality Day**

Instituted by Rep. Bella Abzug and  
 first established in 1971, the date  
 commemorates the passage of the  
 19th Amendment, the Woman Suffrage  
 Amendment to the U.S. Constitution,  
 which gave women in the United States  
 full voting rights in 1920.

***Far from distractions.***  
***Far from ordinary.***



### HEIFER RANCH CONFERENCE AND RETREAT CENTER

To learn about retreat packages, visit our website at  
**[www.heifer.org/ranch](http://www.heifer.org/ranch)** or call us at **(501) 889-5124**.



Leave the distractions of the city  
 behind and retreat to the foothills of  
 the Ouachita Mountains of central  
 Arkansas for your next corporate or civic  
 meeting. Heifer Ranch offers affordable  
 packages and modern facilities, complete  
 with high-speed wireless Internet  
 and audio-visual equipment,  
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 houses and a dining facility that  
 can cater to large or small groups.  
 For your next meeting, don't settle  
 for a sterile hotel conference  
 space. Retreat to the extraordinary.







PHOTO COURTESY OF Q-DRUM

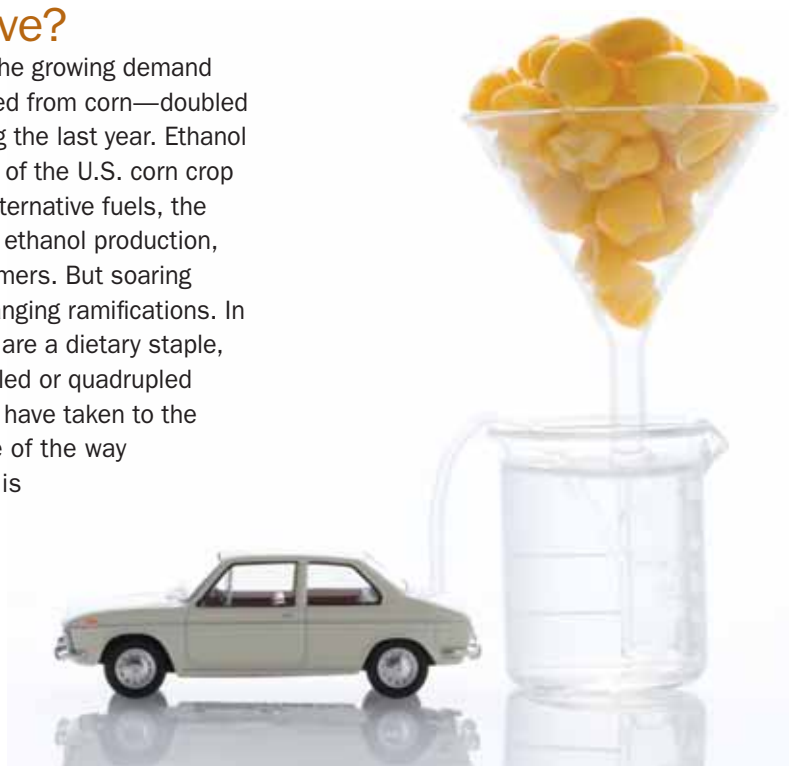
## Reinventing the Wheel

Sometimes, the saying goes, the best solution is a simple one. South African architect Hans Hendrikse took this saying to heart and has devised a simple way to easily transport fresh water long distances. His invention, a drum with a hole through the middle like a doughnut, can ease the burden of hauling water long distances for cooking, cleaning and drinking. Called the Q-Drum, the device is already patented in about 50 countries. One potential benefit: The World Health Organization estimates that reducing water-carrying duties would allow many more girls to go to school.

[www.rolexawards.com/special-feature/inventions/index.html](http://www.rolexawards.com/special-feature/inventions/index.html)

## To Eat or to Drive?

That may be the question. The growing demand for ethanol—a biofuel derived from corn—doubled wholesale corn prices during the last year. Ethanol production used 18 percent of the U.S. corn crop in 2006. In efforts to find alternative fuels, the U.S. government subsidized ethanol production, providing a boon to corn farmers. But soaring corn prices will have wide-ranging ramifications. In Mexico, where corn tortillas are a dietary staple, the price of tortillas has tripled or quadrupled in some places, and people have taken to the streets in protest. Because of the way it is made, the corn tortilla is an excellent source of protein and calcium. But these days, many Mexicans have begun substituting another cheap, much less nutritious form of food: instant noodles.



## Speaking Out

Women's groups in Sierra Leone are campaigning for better representation in their country's government. Organizations like the Fifty-Fifty Group want more women candidates on the ballot for the general and presidential elections in July. The elections are only the second to be held since the end, in 2001, of the country's decade-long civil war in which many women and girls were abused and enslaved. The literacy rate of men in Sierra Leone is twice that of women, and tribal customs have long held that women are inferior to men. Optimists point to the country's neighbor, Liberia, where Africa's first woman president was recently elected.

## The Human Factor

For many countries, the most valuable export may be their citizens. A new report from the World Bank suggests money sent home by migrant workers is now a major source of income. BBC News reports that in Latin America this amount is greater than both direct foreign investments and foreign aid combined. There are consequences both good and bad, the report notes—on the one hand, the money goes straight to families and is often used for small business investments or daily needs. On the other hand, the money isn't taxed so it might not go toward public projects that improve a country's infrastructure. And it comes at a price—the export of hardworking members of the population and families living apart.

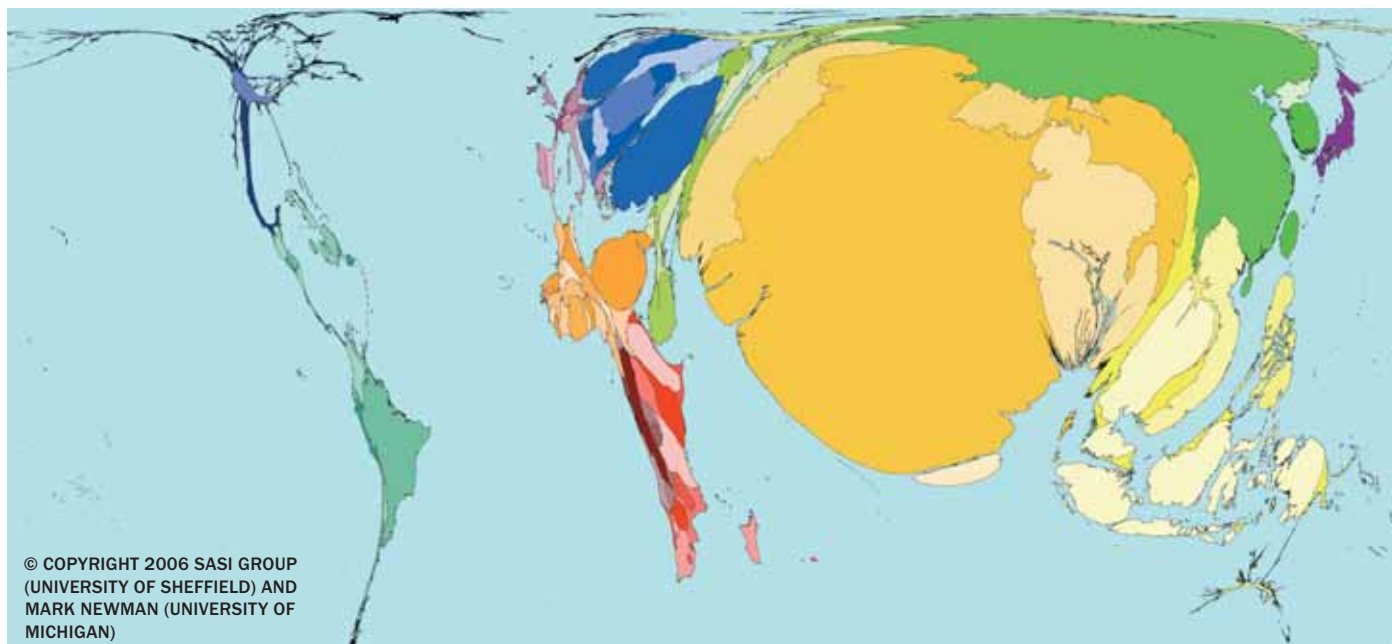


PHOTO BY DARCY KIEFEL

## Young Mothers, Age-Old Problems

The Nepalese practice of marrying off daughters at an early age brings with it a host of health problems for these girls, says the United Nations. Girls as young as 12 marry and bear children, most delivering their babies at home. As a result, rates of related diseases and complications, many deadly, are high. As many as 6,000 women die annually in Nepal from pregnancy complications and poor post-natal care. Extreme poverty contributes to the situation, since girls are often expected to return to work immediately after delivering. It is poverty as much as tradition that perpetuates the early-marriage practice, as most families arrange to marry their girls off as soon as possible to reduce financial burdens.





## More Than Meets the Eye

Everyone with a grade-school understanding of the Mercator Projection knows that maps are all in the way you look at them. Now a little organization called Worldmapper has set out to prove it. They have mapped the way our world would look in a distorted alternate universe, where a country's statistics are more important than its geographical area.

This map shows the proportion of women working in agriculture around the world; nearly half are found in southern Asia. The authors point out that this map is almost an inversion of the per-person distribution of tractors in the world, which are found mainly in wealthier countries.

For more maps and more about the mapping project, go to [www.worldmapper.org](http://www.worldmapper.org)

## Looking a Gift Horse in the Mouth

The head of the Food and Agriculture Organization (FAO) is calling for reforms in food aid. "In many cases, food aid is used because it is the only available resource, not because it is the best solution to the problem at hand," said Jacques Diouf, Director General of the FAO. "Increased and more flexible resources are needed to address food insecurity." The report points to the United States as one of the biggest offenders, with virtually all of its donations tied to what the FAO calls "commercial transactions or services in the donor country." According to the FAO, a better solution might be cash vouchers for food to be used within the country receiving the aid.

### Crossword Answers

S	S	W	C	A	L	L	C	E	L	T	S
M	I	R	O	P	I	E	A	V	E	R	T
O	N	E	W	O	R	L	D	A	V	E	N
C	A	N	A	L	G	A	I	N	S		
K	I	C	K	O	P	E	R	A	S	S	E
	H	E	I	F	E	R	P	R	O	J	E
			C	U	R	S		A	L	O	E
D	A	N	W	E	S	T	A	N	I	M	A
A	R	I	E				S	L	O	B	
I	N	T	E	R	N	A	T	I	O	N	A
S	O	S	E	A	S	E	I	N	M	E	A
			A	S	P	I	E		P	E	N
E	N	D	W	O	R	L	D	H	U	N	G
F	R	A	I	L	I	R	O	N	T	R	E
T	A	M	M	I	E	Y	E	S	H	A	S

## AIDS Hits Home in Zimbabwe

Although social taboos in Zimbabwe have long muffled the discussion of AIDS, money talked at last. In a country where 70 percent of the population depends on farming, the Ministry of Agriculture noticed that many of its employees were missing work due to AIDS illness and deaths. The government is tackling the epidemic with a country-wide campaign directed at farmers and farming communities, designed to treat and prevent AIDS and HIV-infection in an often migratory population that spends a great deal of time away from home.

## Infant Mortality High in Mississippi

In 2005, Mississippi had the highest infant-mortality rate—11.4 percent—in the United States, according to the May 7 edition of *Time*. The news is even worse for nonwhite babies, with a mortality rate of 17 percent.



PHOTO BY EMMA LEE/LIFE FILES

## The Wow of Cows

The humble, sturdy cow is used for food production and draft power throughout the world. It is thought to be one of the first animals domesticated for use by humans, perhaps in Europe or Asia around 8,500 years ago. Today, the total cow population worldwide is estimated to be 1.3 billion.

One of the qualities that makes the cow so popular and valuable is its ability to digest materials that are unusable to humans as food, like grass and other cellulose-based plants. It does this with its four-chambered stomach, which acts like a small processing factory, allowing plants to ferment and breaking them down with bacteria, regurgitating them as cud for further chewing, and then absorbing the nutrients for circulation throughout the body.

Cows are great milk producers. The amount they produce varies, but commercial cattle produce around 6 gallons a day. The milk is rich in protein and nutrients and used to make cheese and other dairy products. Cattle are also raised for their meat and hide, which can be used to make shoes, clothing, and even, by some peoples, lightweight and portable housing. Cow manure is an excellent fertilizer, and the addition of a cow to a small farm or large garden can dramatically improve the production and quality of the crops.

Cows are also used for draft power, plowing fields and hauling. In many developing countries, they are a form of wealth. Just be sure when you meet a cow abroad that you are speaking its language: In China, a cow says *mu mu*; in Holland, *boeh*; and in France, *mueh*.

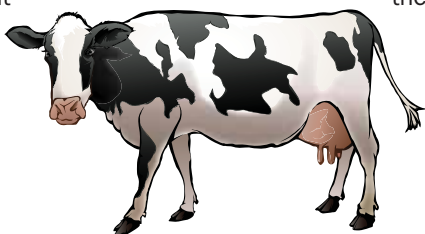


ILLUSTRATION BY BRYAN ARENDT





## Of Hearts and Minds

**By Peggy Scherer**

Assistant to Heifer's  
Senior Vice President  
of Communications  
and Marketing

I was just 14 when I saw real hunger for the first time. A high school teacher had organized a service trip into the hills of Kentucky; we would deliver donated goods and help out however we could. While the details have long since blurred, one image is with me still. We drove into a “holler” to deliver clothes and food.

At the first place we stopped, there were young children, barefoot in the cold November air. Their eyes were somewhat vacant, their bellies swollen. Later I asked my teacher, “How can they be hungry but look so well-fed?” and I learned the awful truth. That malnutrition can make a person look full. And I was just a hundred miles from my home.

Later that year our social sciences teacher assigned us *The Other America*. In it, Michael Harrington described how poverty, hunger, racism and a whole host of societal ills were no accident, how even an awareness of them had been hidden by design. Decisions had been made, policies enacted—or rejected—resulting in realities that by then I had seen, but not understood. Such poverty and want were far too common in a country with as many resources as ours, and far worse elsewhere.

Those combined experiences changed how I would lead my life, and taught me a really important lesson. The personal encounter put in context by a larger analysis—thought and action—had a much greater impact than either would have had on its own. I wanted to learn more. So I did.

Many years and experiences later, I have learned a great deal. At the New York Catholic Worker, we split our days between offering food,

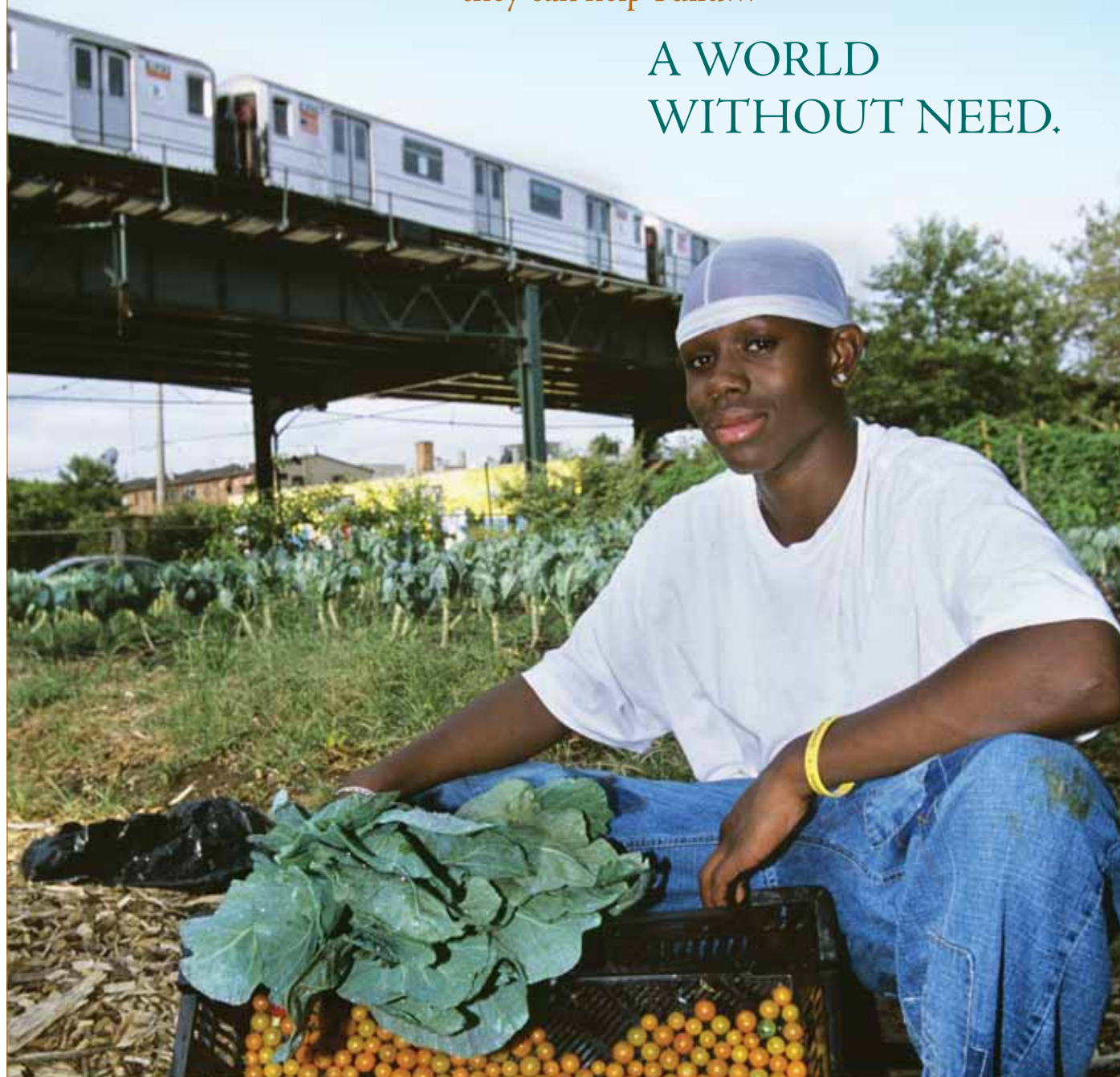
shelter and clothing and—with *The Catholic Worker* newspaper as the main vehicle—studying, debating and writing about the injustices that caused those needs. In New York City, Guatemala, Nicaragua, Cincinnati and Washington, D.C., working with people who were homeless, grappling with extreme poverty, war and HIV/AIDS, other lessons were quite clear. Poverty is so much more than a word; it is a reality for millions with faces and names, people I came to know, to respect and to love.

Those same people (Arthur, Maria, Slim, Jeannette, Pedro and many others) taught me more about perseverance and hope than about suffering, misery or death. I learned that how we live our lives—attitudes and expectations and habits—can be part of the problem or the solution, in this world of limited available resources. I learned, sometimes painfully, how much patience, perseverance and collaboration are essential ingredients in making significant change.

These experiences have taught me how important education is to finding successful solutions to ending hunger. And although educating those with “more” will not immediately change life for those in poverty, it will deposit seeds that can bear much fruit. Heifer’s education programs provide a range of information through realistic exhibits and interactive displays. These illustrate how hunger and extreme poverty impact lives—through real people’s stories—and demonstrate solutions that can make a real difference. I’ve come to believe that experiences that touch both the heart and the mind can work well indeed. They have for me.

When our kids learn about  
ending hunger and poverty,  
they can help build...

A WORLD  
WITHOUT NEED.



Feed Your Mind • Take Action • End Hunger  
visit [www.heifer.org/learn](http://www.heifer.org/learn)





PLEASE BECOME A FRIEND OF HEIFER TODAY!

# *Spread hope this summer*



**M**ake summer a season of hope for millions of struggling families around the globe. With your help, the cold reality of hunger and poverty can be transformed into rays of hope and self-reliance. Friends of Heifer is a group of dedicated and compassionate people who agree to give as little as \$10 a month to help provide a steady, reliable source of support for Heifer's project work around the world. You'll be providing a steady supply of milk, cheese, eggs and income to families suffering from malnutrition. And each month we'll send you a special report detailing how your monthly gifts of livestock and training are touching the lives of children and families struggling to overcome poverty and hunger.

**Call toll-free right now!  
1-888-5-HUNGER**



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