

® THE MAGAZINE OF HEIFER INTERNATIONAL

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# worldark

HEIFER TANZANIA

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A LASTING LEGACY  
IN MISSISSIPPI

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# Dear Determined Humanitarians,

**E**ach new year brings a sense of promise that we can shape the future for the better. This year in particular, I've been imagining what the dawn of 1944 felt like for Dan West and the other Midwestern farmers who were outlining plans to donate their cows to others in need. What they did in those months 75 years ago became the foundation of Heifer International. Did they know then that what they were putting in place would go on to

transform the lives of millions?

As I ponder that question, I also ask myself how West was able to maintain optimism for his endeavors in the midst of a World War. And while the world was much different then, I do see parallels between the struggles West faced at our organization's inception and the instability we're facing now. Rising temperatures, more severe weather patterns, droughts and debilitating floods are making life more tenuous for the world's most vulnerable


— including the small-scale farmers in our programs.

While caring for the Earth is part of our mission and all projects seek to improve the environment, we have turned our attention to climate-smart agricultural practices in the last few years. In this issue you'll read about one project in Tanzania that is facing climate change head-on. The Igunga Eco-Village is an innovative way farmers are adapting to new approaches and increasing yields. We also take a look at how one couple made their home a green building and the power trees have in helping us mitigate carbon emissions.

To honor Heifer's 75th anniversary, we also take a look back. You'll find a fascinating look at our work in the Deep South from the Civil Rights era, and you'll learn about some of the powerful men and women who helped shape the organization.

In this increasingly unstable world, we need a dose of hope. And at Heifer, because of the ongoing work started by our founder and the enterprising and hardworking individuals that are working to help reverse some of the most troubling issues that have arisen, hope springs eternal.

Yours for a better world,



Pierre U. Ferrari

 @HeiferCEO



Dan West (center) visiting fence makers in Middlebury, Indiana, where he lived when he founded what is now Heifer International.

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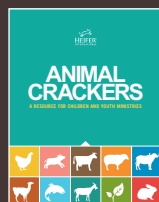
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## COVER

In Tanzania, Irene Alex (left) and Frederick Joseph (right) care for seedlings in their class nursery.  
Photo by Phillip Davis

Top:  
To keep the campus trees healthy, Jitegemee Primary School students use jugs to bring water from home each day.  
Photo by Phillip Davis

**10** Taking the LEED in Green Living  
Many people might think sustainable construction is reserved only for new, high-cost commercial buildings, but that's not the case. Ann Owen talks about her experience building a green, LEED Platinum certified home in Little Rock, Arkansas.



**20** It Takes An Eco-Village  
In the harsh, dry climate of Mbutu, Tanzania, it's hard to make a living from farming. But with the support of Heifer Tanzania, Socha Sosoma and Stella John are finding ways to thrive while improving the environment.



**32** The Burden of Climate Change Falls on the Poor  
Although we are all affected by global environmental changes, families already struggling with hunger and poverty are hit the hardest. Harjeet Singh, a climate change expert for ActionAid, discusses the breadth of the problem.





#### ENJOYING LIFE ON THE DAY OF THE DEAD

How I enjoyed your delightful article, "Blazing Devils, Carved Radishes and Other Latin Holiday Traditions," along with its colorful photographs! Yes, for centuries already my fellow Mexicans have celebrated "El Dia de los Muertos" (The Day of the Dead). On that day, families gather to honor their dead by enjoying life ... they eat, they drink and they make merry. Aren't we blessed to be so creative in our efforts to prevent the grim reaper from pouring vinegar into the tasty punch of life?

Mexicans have a popular proverb, which I'll make an effort to translate: "El muerto a la sepultura, y el vivo a la travesura!" (The dead we must bury, but while we live, let's be merry!)

DAVID QUINTERO  
Monrovia, California

#### CHANGING LIVES AND ATTITUDES

My husband and I have been contributing to Heifer International for many years. We love llamas and usually gift one every Christmas.

I really enjoy your magazine. It always makes me happy to see how many women are being empowered by Heifer by receiving animals and education to improve their lives.

Their families and communities all benefit. Their nutrition is improving and their children (especially the girls) are going to school. Men are now starting to realize that their wives and daughters can be respected breadwinners too. These women are pioneers in changing old repressive attitudes. Thanks, Heifer, for changing women's lives!

Please print more recipes in your magazine!

MARCIA GASCHO  
Indianapolis, Indiana

#### FOND MEMORIES OF OAXACA

Usually, I leave *World Ark* in the post office and it's picked up by someone the same day but the Holiday issue is, for me, a keeper. From the fascinating facts about wool to the beautiful Indian women and then the Latino holiday traditions and the wonderful story about Oaxaca, everything was perfect.

In Oaxaca on a two-week Spanish grammar course some years ago, I did everything in the story and more (the cochineal beetles on the cactus leaves that so brilliantly color Campari, or used to), purchased *alebrijes*, ate *tlayudas*

and *chapulines*, saw the Tule Tree, went to a Guelaguetza celebration, bought bitter chocolate in the market and felt the ambience of Monte Alban. So thank you for the reminder to savor the memories of this marvelous place.

SHEILA SOMNER  
Saint David, Arizona

#### A SHORT RESPIRE

I just received the Holiday 2018 issue of *World Ark* magazine and felt so moved that I am writing to you.

Bravo for embedding the gift catalogue in this thoughtful, informative and inspiring series of stories about the impact of your work.

As I often feel awash in the fear-baiting that characterizes this moment in the U.S. and attacks against agents of change across the globe, your hopeful and intelligent stories are a welcome relief.

Keep up the good work and thank you!

DIANE SOLES  
Madison, Wisconsin

#### Q&A SPRING

How do you make sure the environment is healthy in your part of the world?

#### WE WANT TO HEAR FROM YOU!

Please send your comments to [worldark@list.heifer.org](mailto:worldark@list.heifer.org).

Include your name, city, and a telephone number or email address. Letters may be edited for length and clarity, and may be published online as well as in print. Because of the volume of mail we receive, we cannot respond to all letters.



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Since 1944, Heifer has helped 34 million families, directly and indirectly, move toward greater self-reliance through the gift of livestock and training in environmentally sound agriculture.

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# THE GIVING TREE

If you're into stress relief, higher property values and lower utility bills, **plant yourself a tree.**



**3 TRILLION:**  
*number of trees in the world*

**ONE ACRE OF FOREST:** ▶ absorbs **6 tons** of carbon dioxide  
▶ puts out **4 tons** of oxygen

*This is enough to meet the annual needs of 18 people.*

An average-sized tree produces **260 pounds** of oxygen per year, enough for two people.

## WHY DO WE KNOCK ON WOOD FOR GOOD LUCK?

That tradition comes from long-ago pagans who tapped on tree trunks to summon the good spirits living inside.



## URBAN HEAT ISLANDS

happen when large swaths of asphalt and cement surfaces attract and retain the sun's heat, artificially boosting temperatures. Trees and green spaces are the only cure.

## CUT UTILITY BILLS, NOT TREES!

Trees on the west side of your house can block enough of the sun's heat to **save \$25** on your air conditioning bill each year. Trees are also natural windbreakers and can therefore cut down your heating bills in the winter.

## LIVE NEXT TO A BUSY ROAD? PLANT SOME TREES.

They muffle noise as efficiently as a stone wall, all while:

- ▶ producing oxygen
- ▶ controlling erosion
- ▶ spurring along our water cycle



## TREES ARE NOT AS HELPLESS AS THEY SEEM.



Some can **produce chemicals** to fend off leaf-eating insects.



Some can **emit airborne signals** to alert other trees to prep for insect attacks, or to call in other species for backup.



Apple trees, for example, can **attract hungry birds** to come eat invasive caterpillars.

## HEALTH BENEFITS

Health benefits of trees are both physical and mental.



Exposure to trees and nature reduces mental fatigue and can reduce blood pressure and muscle tension.

Neighborhoods with more trees experience less crime.

**15%**

Having trees in yards and throughout neighborhoods can **boost property values** by up to 15%.

## WE CUT DOWN 15 BILLION TREES A YEAR.

Since the onset of agriculture 12,000 years ago, the planet's tree numbers **declined by 46%**.

*"I think that I shall never see, a poem as lovely as a tree." - Joyce Kilmer*

Trees make the most lovely disguises for cement walls, tumbledown fences and other urban eyesores.

Infographic by FFunction



# The Case for Overpacking

Story and photos by Bethany Ivie, *World Ark* writer



This is the face of a person who hasn't packed enough socks, but doesn't know it yet.

**I have a confession:** I overpack. Chronically and without remorse.

Did you know that, for some, overpacking is the cardinal sin of travel? I didn't, but a quick Google search confirms: people have put a lot of energy into "traveling light" and advising others how to do so. And I don't blame them! It's less hassle. It can help you avoid pesky baggage fees. And, most importantly, you get to tell people that you only needed one carry-on bag for your entire three-week trip across the Himalayas.

I was lucky enough to be sent on a 17-day *World Ark* assignment in Tanzania and Rwanda, and I packed ... a lot. After being back for two and a half weeks, I started to unload my suitcase (don't judge me), and it led me to reflect on the things I'm glad I took and the things that were deeply unnecessary. That's right, it's time for an episode of *Suitcase Autopsy*.

## WHAT I PACKED

I won't go into exhaustive detail, but here's the gist.

### CLOTHES

- Too many shirts
- Some pants
- An inadequate number of socks
- Approximately 90 pairs of underwear

### TOILETRIES

- About five tiny bottles each of shampoo, baby shampoo, conditioner, body wash and face soap
- Toothpaste
- A toothbrush
- Mysteriously, another toothbrush
- Multiple rolls of toilet paper
- A small hairdryer
- Many, many, many pads, pantyliners and tampons

### MEDICINE AND FIRST AID

- Every painkiller known to man
- Antibiotic cream
- The biggest Band-Aids I could find
- Multiple types of bug repellent
- Sunscreen
- More sunscreen
- At least five different medicines that would fall under the umbrella of "intestinal distress"

### ENTERTAINMENT

- One skein of yarn and a pair of knitting needles
- One cross-stitch project
- A Kindle
- Legions of downloaded podcasts
- A few audio books

### SNACKS

- A truly excessive amount of peanut butter crackers
- Granola bars & trail mix



## WHERE I FAILED

### I PACKED TOO MANY CLOTHES

In planning my outfits for the trip, I forgot something: Hotels have laundry services. Gone are the days where I have to pack my entire wardrobe for fear of running out of clean clothes. A new day has dawned. Now I know that I could have packed far fewer clothes and, next time, I might (but I probably won't).

### THE EXCEPTION: SOCKS

Hey, fellow sweaty people? You need more socks than you think you do. I don't know if I hid my clean socks from myself in my sleep or simply didn't take as many as I thought, but I could never find a pair when I needed them. And at the end of each sweaty, hot day, I DID need them.

### TOILETRIES

Here's another no-brainer that didn't occur to me in my packing frenzy: hotels have and provide soap, shampoo and conditioner. Every day. Do you know what they also provide? Tiny hairdryers. I brought my own and found its bulk so irritating that I never used it.

### SNACKS

I brought an obscene amount of snacks, and I needed none of them. The peanut butter crackers? I left them in Rwanda for others to enjoy.



## WHERE I (DARE I SAY?) NAILED IT

### CLOTHES

I will never, NEVER, apologize for bringing too many pairs of underwear. At any given point, I want to have access to more clean underoos than I could possibly, physically need, and I did because I brought every functional pair that I own. Who's in rural Tanzania without clean bloomers? Not this girl. No way.

### MEDICINES

This is the area that took my suitcase from "hoarder's basement" to "friendly neighborhood pharmacy." I didn't use 80 percent of the meds I brought, but I am SO glad I brought them. I was prepared for any kind of ailment (from a skinned knee to a UTI) that could pop up and hinder me as I tried to do my job, and I could take care of myself without bothering my teammates or hosts. When one of my travel buddies had a headache? There I was, dispensing painkillers like a sweaty, dusty Mary Poppins.

### ENTERTAINMENT

Even as a professed overpacker, I felt pretty extra taking two different types of handicrafts (especially two that have been historically enjoyed by women over 80). But those crafts saved my sanity on the long plane rides and in the many hours of airport waiting. If you have a portable hobby, I highly suggest you take it. Interestingly enough, though, I didn't touch my Kindle or any of the audiobooks I downloaded for the trip.

## FINAL THOUGHTS

**Here's my two cents:** If something would make you more comfortable during your travels and you have enough room in your suitcase, take it. It doesn't matter if you use it or not. Traveling is awesome, but it causes a lot of anxiety, and if you can mitigate that for yourself by bringing too many pairs of underwear or, I don't know, one of every type of anti-nausea medicine available for public consumption, I say do it. Bring too many shirts and bring an extra bottle of your favorite soap. Carry your own extremely heavy bag and get going!





# Taking the LEED in Green Living

Interview by Molly Mitchell, *World Ark* writer, and photos by Phillip Davis

There are lots of misconceptions about sustainable design. Often sustainable building projects, or “green buildings,” are associated with high-cost, ultra-modern design that works for commercial buildings but not necessarily for individual homes. Well, that is simply not true! Green buildings can be for everyone, and this Little Rock, Arkansas, couple built a house to prove it.



Ann Owen and husband Rick Owen's solar-powered home brings traditional home design into the 21st century.

Ann and Rick Owen built their green home in the heart of Little Rock's historical Heights neighborhood. The Owens' home is ranked as Platinum (the highest currently possible) on the U.S. Green Building Council's LEED certification scale. According to their website, LEED, or Leadership in Energy and Environmental Design, is “the most widely used green building rating system in the world. Available for virtually all building, community and home project types, LEED provides a framework to create healthy, highly efficient and cost-saving green buildings. LEED certification is a globally recognized symbol of sustainability achievement.” The 2,600-square-foot, contemporary farmhouse-style home is a net-zero building, meaning it produces more energy than it uses. Ann Owen spoke to us about how and why they decided to go green.

**WORLD ARK: Why did you decide to build a green home?**

**ANN OWEN:**

Rick and I got married in 2003, and we bought this house together. Over the years we wanted to make

it as green as we possibly could, so one of the things we were looking at was applying solar panels. The neat thing about this lot is that you have great south-facing exposure with few outside obstructions. It really was ideally suited for solar, orientation-wise. But there were too many obstructions in



Ann and Rick Owen's home in Little Rock, Arkansas, produces more energy than it uses.

the roofline. We would have had to completely redo the roofing situation to make it happen, and it just didn't warrant that. So we decided to start over and not just go solar, but go as green as we could.

We'd always thought of ourselves as preservationists. Whatever you can do to keep a structure intact, particularly if it has some historical significance. Our house didn't, but we just thought it was cute. That

was the reason we bought it. Over time we realized it just wasn't as structurally sound as it needed to be. So, we decided that we wanted to produce something that was really livable but still in keeping with the neighborhood. A lot of times people associate green building with ultra-modern, or something that's very distinctive-looking, and that doesn't have to be the case. We wanted our house to look like it

belonged in the neighborhood, so that it was consistent historically with the design of some of the other homes. And we liked contemporary farmhouse style anyway, so that's what we wanted the house to look like.

We also wanted to convey the notion that you don't have to pay more for green construction. I think that's probably another fallacy or myth that you have to



While many green buildings are paired with modern design, the Owens preferred a contemporary farmhouse style.



Induction ranges like this one heat up and respond to temperature adjustments faster and more efficiently.



The colorful kitchen countertop is made from 75 percent recycled glass and cement.



Energy Star products are certified by the EPA to be energy efficient.

pay appreciably more for a green building than you would have to for conventional building. So we made choices that gave us the biggest impact for the least amount of money. Well, sometimes we splurged for things we really liked, like our recycled countertop. But we were really looking for ways that would reduce our footprint. We wanted to live more lightly on the Earth, and this gave us a chance to really live our values.

So we decided that the most efficient and cost-effective thing to do would be to start over. And we would be able to get many of the green features that we wanted with a reasonable price tag. So that's how we got there.

### What are the green features of the home?

We're Platinum LEED rated, version 4. We're the only version 4 Platinum home in Arkansas. I think there are only 30 LEED single-family homes in Arkansas of different versions.

The largest LEED point generator for us was the solar panel production. We have 42 solar panels, which make us a net-zero home, so basically we're producing more energy than we're using. Other green features of the home include Energy Star appliances, WaterSense plumbing fixtures, cast-iron sinks and tubs, no VOC [volatile organic compounds] paint and eight rain barrels we use for irrigation. We don't have a lawn, and so that means that



Skipping the grass lawn saves significant amounts of time, money and resources.



Rain barrels collect water for irrigation.

we're not having to apply chemicals to maintain grass. We've got flower beds, or beds that have various types of perennials. That's another thing: I wanted it to be low-maintenance from a multitude of standpoints. I didn't want to have to be planting plants every year because they're annuals.

We got points for not having a fireplace. You have better air quality if you don't have a fireplace. And I realized that we never used the fireplace we had. It was just more of a focal point, you know where you put your television or a piece of art. We also get points for having a station where you take off your shoes, just inside the back door. A little cubby area or somewhere that invites people to take off their shoes, that's another indoor air quality issue, which I didn't realize

until I started studying up on this. Apparently when you track in things, it gets airborne and you end up inhaling it. So it's helped me reframe my thinking in terms of, you know, it's not just about tracking in mud, it has to do with what you'll actually be breathing.

We like to upcycle and repurpose things as much as possible. A lot of our furniture pieces used to be something else.

#### **How do your current energy costs compare with your previous home?**

We still have a little gas that we use. It powers our on-demand hot water heater. And our dryer is gas. But most of the energy we use is electric. We produce almost all of our own power. I think there have been two months where we've had

a small bill. Generally, the monthly bills that we get are taxes and fees that you have to pay regardless of whether or not you're generating all of your own power, so I think that averages about \$10 a month. But I think there were an additional two months where we paid an additional \$10 for energy consumption.

We had done an energy audit with our previous house, and we did a lot of the efficiency things that they recommended. But it was still a very energy inefficient home.

#### **If someone wants to make a house greener but can't start from scratch, what are the best changes they can make?**

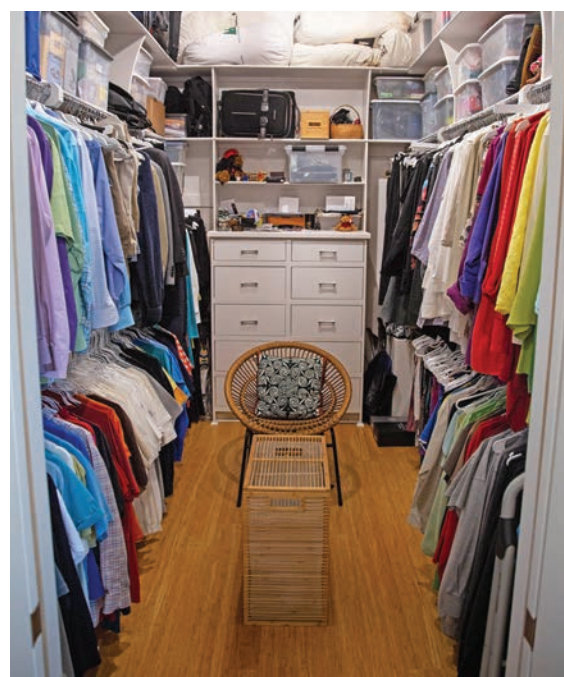
Anything you can do to reduce your energy consumption is, I think, probably step one. If you have the capacity to add solar panels or go



Removing shoes while in the house is cleaner and improves indoor air quality.



Cast-iron tubs are more energy efficient because they keep water warm longer and are more durable than other materials.



Efficiency is pleasing to the eye as well as the wallet.



The largest LEED point generator for the Owens' green home was the installation of 42 solar panels.



Upcycled and repurposed materials make for vibrant decor.



The solar panels came with computer software to track energy production and consumption.

geothermal, that takes you so much further ahead than you might be otherwise. There's still a federal credit on your income taxes. It's 30 percent, which is sizable. So for instance, this system cost \$30,000 but we got \$10,000 of that back on our taxes. It is a big-ticket item, but when you start thinking of how



Bamboo flooring is an attractive and more sustainable alternative to hardwood.

quickly that's going to start paying for itself, and how long solar panels last — generally I think the panels are rated for 25 years. It doesn't mean they stop working, it just means they're not at 100 percent. They're rated to last a long time, and so the only thing to worry about is needing to take them down to replace roof shingles over time. But the nice thing about having solar panels over a new roof is that the roof lasts a lot longer, because it [the solar panel array] is absorbing the heat rather than your shingles. So it gives you a lot of protection.

**What advice do you have for someone who wants to build a green home?**

I would definitely find a green builder. I think associating yourself with an architect or builder that really understands green building is paramount.

And just do some research on the kind of options that are available in your particular market. If we lived on either coast, we would have more green building practices available to us than in Arkansas. It's kind of like buying an electric car. You're going to have more options

available in, say, California, which has more stringent environmental laws than other states. Lending is something you have to think about. Can you get the money you need for the project you want to do? I think we're becoming more sophisticated when it comes to things like that, especially in areas where there's not much yet, like Little Rock.

Think in terms of how you landscape. It's hard to maintain a lawn! It's costly on all fronts, really. Not having a lawn is one of the best things you can do for your landscape. So that's



The Owens' house is Platinum LEED rated, version 4.



Owen estimates they spend about 10 dollars a month on energy bills.

something that we recommend.

**What's the advantage of going for the LEED certification?**

For us it was a way to be public with our intention. And it gave us something to shoot for. It gives you a framework that you can use as a yardstick to measure your progress and impact you're going to have. And somebody's already done the legwork for you. You know, for a layperson like me who's not trained in those kinds of things, to have all that — follow this, use these guidelines and achieve these points — it just takes a lot of the guesswork

out of the green building process. Keith [the Owens' builder] gave us a lot of great advice, and I just appreciated how receptive he was to everything we wanted to do.

**What was the hardest part of doing this project?**

I think initially deciding to do it was really difficult. And we had a lot of people tell us, you know, your house is so cute, why would you want to take it down? And then you'd have to say, oh OK, it's not as cute as you think. Things aren't always what they seem on the surface. And, it

had been poorly remodeled over the years, and it really would have been a money pit to get it where it needed to be and still try to preserve any portion of it. But we were thinking in the long term, what's going to serve us best and be better for the Earth, frankly, over time.

We've had a lot of people comment and knock on the door to ask us about the solar panels, and that's nice. And the whole reason for putting a LEED plaque on the front — you know, I didn't want to be obnoxious with that, but that's the whole point of being LEED certified,



Indoor plants help filter and purify the air. Plus they make a house look homey!

Sustainability is a priority for Heifer International in the United States and around the world. You can support our work and have your gift DOUBLED. See the envelope between Pages 24 and 25 for details.

is to let people know about it and to let people know that it's attainable, and to be a conversation starter. I mean, that's the whole point, is to start the conversation and let people know what's available in this area. Little Rock has never seemed like a hotbed of green building, but fortunately buildings like Heifer and the Clinton Library and Winrock and others that are LEED certified have really raised the profile of green building in this area. People still don't think of it in terms of homes. So, we just hope to have it be part of the conversation.

We're really happy with it.

#### What's the best part of living here?

It's a cheerful house, which is helpful to me. It's been a growth experience on many levels. It emboldened me. I've always picked out neutral colors because I've always moved a lot, and it always seemed easier to have something really neutral so you can move and not have to do a lot to it, but I was like gosh, this is going to be my forever house. Why not put some color on the wall, why not pick a bold color countertop? So, it made me a lot more adventuresome in decorating and things that I picked out than I might have otherwise. ■



The Owens used their old fencing to make mirror frames.

# It Takes An Eco-Village



Socha Sosoma, 51, and Stella John, 50, hold tree seedlings that they are growing in their home nursery.

Climate change is affecting the world's poorest people, especially those who rely on agriculture to survive. In Igunga, one of Tanzania's driest districts, communities are partnering with Heifer to combat climbing temperatures and leave the Earth better than they found it.

By **BETHANY IVIE**, *World Ark* writer

Photos by **PHILLIP DAVIS**



A sign advertising the Igunga Eco-Village Project.

**P**ower-couple Socha Sosoma and Stella John are a picture of success. At the front of their house in Mbutu, Tanzania, the dusty soil gives way to a vibrant kitchen garden brimming with onions, peppers, lettuce and every other good, green thing. Around back a pot of *ugali*, a savory cornmeal porridge, bubbles on a clay stove while plump chickens roost in a nearby shed. Sosoma and John sit in the sun together amid their achievements, talking and laughing while she cuts onions for their midday meal. Occasionally, they pause their conversation to stir the *ugali*.

In 2016, Sosoma and John joined Heifer Tanzania's *Igunga Eco-Village Project*, but before that, life for the couple wasn't so sunny. They struggled to keep their family of seven afloat. A farmer and craftsman by trade, Sosoma did whatever he could to meet his family's needs, but it was never enough. "I was struggling to do any job so that I could earn income," he said. "So, I did not have a specific job to do other than struggling and looking for any opportunity."

Mbutu is located in Igunga, one of the driest districts in Tanzania. Garnering a mere 20-27 inches of rain a year, it is a difficult place for farmers to make a living. Sosoma took

construction jobs as he could find them and planted crops he hoped would be profitable but that rarely survived the drought conditions in the dust-choked northern region. When the plants did manage to survive, harvests were disappointing, leaving Sosoma with little income for necessities like food, not to mention his children's school fees. "I used to ask for money to buy food and vegetables, and my husband could not give [that to] me," John said.

John ran a small grocery business from her home. With no garden of her own and no idea how to grow one in the arid soil,

she bought vegetables from her local market for wholesale prices and sold them to neighbors. While the demand for fresh food was steady, the availability of green vegetables was not. She would walk a long way to other villages to find crops that had survived the scorching sun long enough to make it to market. Despite her best efforts, her children would still go to bed hungry. Even when food was available, firewood was scarce, and her stove became another hungry mouth to feed. Sometimes, John or Sosoma would have to trek up to three miles before finding anything

they could use as tinder. The wood-burning stove ate more fuel than the family did food and produced a lot of harmful smoke.

Desperate and seeing no other solution to their struggles, Sosoma and John decided to take their children and migrate to another area where they could, hopefully, carve out a life for themselves or, at least, escape the drought. News of the Heifer Tanzania project coming to the district of Igunga halted their flight and made John prick up her ears. "When I heard climate change adaptation strategies were coming into our village, I decided to stay," she said.

**Mbutu village, where Socha Sosoma and Stella John live, is located in Igunga, one of the driest districts in Tanzania.**



Cattle and an ox-drawn cart make their way across Igunga's dry landscape.



Stella John stands in her kitchen garden.

**“When I heard climate change adaptation strategies were coming into our village, I decided to stay.” — Stella John**

## SUCCESS AT LAST

Thanks to trainings from Heifer Tanzania, Sosoma and John learned not only how to raise enough food and earn enough income in challenging conditions, but also how to combat the effects of climate change in Mbutu. Agroforestry and natural resource management were key parts of their education alongside trainings in chicken husbandry, kitchen gardening and less-tangible-but-equally-as-important topics like gender equity, spirituality and money management. Through these lessons, Sosoma learned to plant certain drought-resistant plants around his crops to protect the soil from erosion, encourage biodiversity and trap rainwater, all while exponentially increasing his harvests. “With agroforestry, I learned that I could cultivate

a small portion of land, and the harvests become huge,” he said. “With agroforestry, we harvest rainwater in our field. We put vetiver around the crops so that when water enters it gets stuck on the vetiver. The vetiver also adds soil fertility.”

For Sosoma and John, the proof of the effectiveness of these methods is in the proverbial pudding. Before he joined the *Igunga Eco-Village Project* in 2016, Sosoma grew maize and green gram (also known as mung bean) with disappointing results. Each season, he would harvest an average of 44 pounds of green gram and 8 pounds of maize. These harvests were so small that they were mostly used for family consumption with the leftovers sold for minimal income.

Using the methods he learned from Heifer Tanzania, Sosoma



has seen his green gram harvests quadruple in volume during the last two years. In 2018, he reaped a whopping 220 pounds of the legume, enough to sell with plenty leftover to keep for his family. These improved harvests gave Sosoma the financial freedom to



Heifer-trained artisan Yuseph Shani builds an improved chicken coop in his home workshop in Igunga village.

**Thanks to trainings from Heifer Tanzania, Sosoma and John learned not only how to raise enough food and earn enough income in challenging conditions, but also how to combat the effects of climate change in Mbutu.**



Sosoma with his improved chicken brooder. He learned how to build these brooders (along with improved stoves and biogas digesters) from Heifer Tanzania.

invest in cotton, a crop he once considered too expensive and too difficult to grow. In 2018, under Sosoma's watchful eye, the first cotton harvest produced 1,200 pounds of fluffy, white fiber and earned the family the equivalent of \$430, an amount Sosoma and John could once only dream of earning. And, thanks to training in drip irrigation and climate-smart gardening, John has her own harvests to tend to. Her kitchen garden provides enough onions, tomatoes, eggplant, sweet potatoes and greens to give her family a much-needed boost in nutrition and fill her grocery stall with fresh produce.

With a natural talent for raising chickens and a plethora of

trainings under her belt, John is the poultry expert of the family. In the past, the couple tried raising poultry but were forced to sell the majority of their flock to pay for their oldest daughter's school fees. Besides that, they were not aware of how to properly care for the birds and lost some to injury or sickness. Heifer Tanzania's trainings taught John how to build shelters that would keep her birds out of the elements and safe from injury, and also stressed the importance of vaccines for the health of her birds. Today, she not only has her own flock at home but is a certified animal health worker and the elected leader of a local chicken cooperative.

"When the group members

get problems with their chickens, they consult me, and I advise accordingly," she said. John regularly travels to neighboring villages to offer her services and deliver vaccines to her fellow poultry farmers whose birds are struggling.

John's own chickens provide more than just eggs and experience; they provide the peace of mind that comes with knowing that she can financially provide for her children, regardless of the state of her husband's harvests. "When my kids need some school materials ... sometimes I sell chickens," she said. Thanks to John's flock, all of her children's school fees have been paid.



Stella John carries firewood.



John's improved wood-burning stove (right) and a view of the chimney (left).



John adds firewood to her improved wood-burning stove.



Ugali boils on the stovetop as John prepares lunch.

## COME WHAT MAY

Heifer Tanzania is helping farmers adopt climate-smart methods to grow food successfully while healing the Earth. And by adopting improved wood-burning or biogas stoves that limit smoke inhalation and deforestation, project participants are cooking food in a climate-smart way as well. Heifer Tanzania trains local craftsman in how to build these more efficient stoves. In this way, artisans hone skills they can use to earn money and boost health at the same time. Sosoma leapt at the opportunity to put his craftsman skills to good use and spread his newfound knowledge about caring for the environment

to his neighbors. In 2017, he became certified as an artisan for the *Igunga Eco-Village Project* as well as a community facilitator in natural resource management, agroforestry and solar power.

One of Sosoma's first acts as a newly minted artisan was to build an improved stove for his wife. As opposed to their traditional stove, which required Stella John to cook over an open flame, the family's improved stove is enclosed and pipes smoke away from the house with a specially constructed chimney. It uses half the firewood of its outdated counterpart, making it an important ally in the fight against deforestation. For John, the combination of

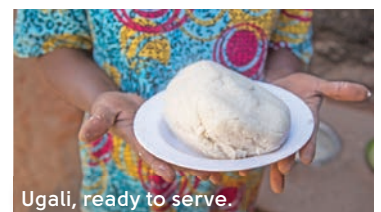
At Heifer International, we often partner with other organizations in our work. The *Igunga Eco-Village Project* is funded and implemented by: Heifer Netherlands, Heifer Tanzania, Aqua for All, the Igunga District Council and the European Union. Acacia Water, RAIN Foundation, MetaMeta and the International Centre of Insect Physiology and Ecology (ICIPE) provided additional partnership, expertise and support.



Brothers Kalistus Socha (left), 12, and Joan Socha (right), 15, stand in front of their mother's vegetable shop. Stella's earnings from her shop and chickens have ensured that they are both on track to finish school.



Sosoma and John's youngest son, Kalistus, does his homework.



Ugali, ready to serve.

**Neither Sosoma nor John know what the future holds. What they do know is that, thanks to their own hard work and a little guidance from Heifer Tanzania, they'll be ready for whatever comes their way, and they will make sure that their children are, too.**

the improved stove and the kitchen garden provided relief from a huge amount of toil. "In the past, we used to search for firewood far away from here," she said, "and we went into the forest in search of firewood because we were consuming a lot of firewood. We were also walking a long distance, even up to Igunga Town, in search of green vegetables. But now we have developed our kitchen garden here so it's just accessible."

To date, Sosoma has constructed 15 improved stoves in villages around the district, earning about \$5 for each. The orders aren't coming in as quickly as he would like, but as he and Heifer Tanzania continue to teach communities in Igunga about the importance of conserving

trees and the health hazards of inhaling smoke, the demand will rise. In the meantime, while the new technology is slowly adopted, Sosoma, John and the other farmers involved in the *Igunga Eco-Village Project* are putting other methods of renewing the environment to work in a way that was once difficult to imagine.

"After we were taught by the project on natural resource management, it has empowered us on tree planting, and now we have more trees planted in our area," Sosoma said. "Before the project, we didn't have trees nearby, until we reached the [neighboring] district. But now, we have trees in Igunga."

Neither Sosoma nor John know what the future holds. What they do know is that,

thanks to their own hard work and a little guidance from Heifer Tanzania, they'll be ready for whatever comes their way, and they will make sure that their children are, too.

"We are no longer planning to shift from this place," Sosoma said. "With the knowledge we have, even [when] some climate changes effects occur, we'll be knowledgeable and it won't affect us ... If it's drought we are already taught on how to overcome drought effects. If it's water, we're taught on harvesting rainwater. If we have enough rainfall in our area, we'll be planting more trees."

For now, though, regardless of the challenges and triumphs ahead of them, Sosoma and John take a moment to sit back and enjoy the ugali. ■

# Pond Appreciation

In a place like Igunga where water is scarce, fish farming may seem like a strange fit. Mwampuli Aquaculture Development Center Officer Wilbert Kingilwa explains why the Center's fish farming partnership with Heifer Tanzania is important for the people of Igunga. He breaks it down in three points:



Wilbert Kingilwa sits at his desk at the Mwampuli Aquaculture Development Center.

## 1

### **Buy Local**

Most of the fresh fish people eat in Igunga currently come from Lake Victoria, which is four hours away by car. By sourcing the fish from nearby ponds, local fish farmers and fishermen can earn more money and provide consumers with tilapia and catfish at a more reasonable price, making fish more accessible to more people. The Mwampuli Aquaculture Development Center raises tilapia and catfish fingerlings, offering them to residents and members of the *Igunga Eco-Village Project* for less than 5 cents each (five times lower than local market prices).

## 2

### **Improve the Environment**

Farmers and fishermen are more successful with aquaculture (pond/tank fish farming) than when they go to public lakes or ponds to net a catch. With aquaculture, farmers only have to go as far as their own land to fish instead of going out into a lake in a small, faulty vessel that may make it back to shore (or may not). The Aquaculture Development Center is working to rehabilitate local ponds by deepening them and using drought resistant plants to channel and trap rain water. Additionally, the Center and Heifer Tanzania are teaching fishermen how to build environmentally friendly covered fish tanks in existing bodies of water. With these tanks, fishermen can use nets that leave smaller fish to grow before being caught.

## 3

### **Ponds are Great**

Kingilwa's final point is, perhaps, the most important. Ponds? Ponds are great. "I just like ponds," he said, smiling and gesturing toward the Center's man-made tanks full of tilapia and catfish. "Even now, you can see that I'm impressed. I like to look at this."

# They Speak For The Trees

If you need to know what to do to give a tree seedling the best possible life, you'd do well to talk to 12-year-old Frederick Joseph. "Well, you start by putting the seeds in a bucket and adding water," he said before walking through the many steps involved in cultivating and planting a tree seedling.

Frederick is a tree enthusiast and, thanks to his education at Jitegemee Primary School, an expert on raising trees in Igunga village's parched soil. He has gone so far as to start a small home nursery to sell the saplings to his neighbors. Each sapling comes with free lessons on care and upkeep.



Frederick Joseph, 12, holds a tree seedling.

"I felt sorry for my neighbors living without trees around. They didn't have shade," Frederick said. "When I saw this I decided to start planting and helping my fellow community members." Not only have his skills helped him improve his neighborhood's environment, they've helped to support his family. Joseph's father died in 2016 and, since then, his family struggled to make ends meet. So far, he's sold seven saplings for 2,500 shillings, or \$1, a piece and tutored nine of his neighbors on how to care for trees. He gives his earnings to his mother so she can buy clothes and food for him and his siblings. The fact that he is able to help his mother in this way makes him proud.

It's difficult to imagine young trees flourishing in Igunga. In fact, according to Vincent Mallya of Heifer Tanzania, they were once considered impossible to cultivate here. "Before the *Igunga Eco-Village Project*, people did not believe that trees grew here," he said. To put an end to this myth, Heifer Tanzania partnered with local schools to teach a growing generation of young Igungans like Frederick the importance of actively caring for the Earth and arm them with the skills to do so. One such institution is Jitegemee Primary School in Igunga village.

"We have learned that trees are important," said 12-year-old Jitegemee student Joseph Mafuro.



Principal Michael Ernest stands next to a young tree at Jitegemee Primary School.

"They provide oxygen and protect the ozone layer. They provide shade and prevent soil degradation. We have also learned how to plant and care for trees ourselves."

Upon entering the Jitegemee campus, it's obvious that the students have put this newfound knowledge into action – tall rows of young green acacia, dodoma and moringa trees line the road on either side of the school's drive in stark contrast to the dry, barren fields surrounding the campus. Each child in attendance here has a specific tree he or she has planted and is responsible for. Together, the students planted 1,300 trees at the school and founded a campus nursery (known around school as The Baby Tree Incubator) housing more than 500 young seedlings.

In a district that gets only 27 inches of rain or less per year, this is no easy task. And at Jitegemee, there is an added element of difficulty: there is



An aerial view of the Jitegemee Primary School Campus.

no water at the school. Undaunted and armed with yellow 5-liter (1.3-gallon) jugs, students bring water for their trees from home twice a day – once when they arrive in the morning and once when they come back from lunch.

To help the green wave spread outside of the school grounds, Principal Michael Ernest mandated that each student take home seedlings from the school nursery and plant them at home – a new experience for the students and a source of pride for their parents. “When people come to my home [and see the trees], they ask my father, ‘Who has done this?’ And he says, ‘My boy can plant trees,’” said Jitegemee student Joseph Mafuru.

In addition to helping trees spread into the homes of students, Jitegemee Primary School gave 300 tree seedlings to a neighboring school, along with training in planting and care. “We want them to learn from us,” said Principal Ernest. “We do this because we know trees are life.”



Students bring water from home to water their trees.



Environmental studies teacher Oscar Moyo (center) gives a lesson to his students.

# Take With Water



Mwabakima Village Chairman Silvanus Buluba (left) and artisan Masanja Bunjali (right) stand next to the rainwater harvesting tank at the village dispensary. With training from Heifer, Masanja was able to construct the tank.

**C**an you imagine receiving treatment at a hospital that has no clean water? Or coming to your doctor's office and leaving with a case of dysentery? For the people of Mwabakima Village, this was the reality of their medical care because they had no access to clean water. The village is home to a dispensary, a small clinic that provides medical treatment and medicine to families in rural areas. In Mwabakima, like many other villages in the Igunga district, the soil is too sandy to

support a well, so the only fresh water available to the villagers and the dispensary came from the nearby river. Though the water was cold, it wasn't clean and infected many with water-borne illnesses.

Heifer Tanzania joined together with the community to think of a solution, and in 2016, workers put up a 300,000-liter rainwater harvesting tank next to the dispensary. During the rainy season the tank fills, and the clean filtered water is used throughout the dry season for the dispensary patients, as well as for the

village's pregnant women and elderly.

Before the tank was built, community members would avoid going to the Mwabakima dispensary if they could, often opting to travel long distances to other clinics or hospitals. Since the tank's construction, Village Chairman Silvanus Buluba has noticed a marked increase in patients who stay in Mwabakima for treatment.

"We have an increased hospital delivery for women but also a raised number of patients accessing this dispensary," he said. "In the past,



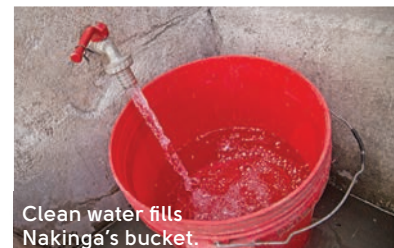


An aerial view of the Mwabakima Village dispensary and rainwater harvesting tank.

people used to go to dispensaries and hospital facilities outside the village, but now everyone's being treated here. This is due to the availability of water. In the past, only two pregnant women delivered here, but for now, in a month you can get seven pregnant women delivering here." The Mwabakima dispensary now averages five patients a day. The rainwater harvesting tank has been so successful at the dispensary that many people are adapting smaller versions for their homes.



Nyamizi Nikinga gets water from the dispensary.



Clean water fills Nakinga's bucket.



A group of *Bibis* (grandmothers) carry clean water back to their homes.

# The Burden of CLIMATE CHANGE Falls on the Poor

INTERVIEW BY **JASON WOODS**, WORLD ARK EDITOR  
ILLUSTRATIONS BY **LAUREN PUCHOWSKI**

**HARJEET SINGH** started his career helping families already struggling with poverty in South Asia contend with disasters ranging from floods and droughts to cyclones and tsunamis. "For me, disaster risk reduction, how we can help people prepare for disasters, that issue was close to my heart," he said. But after years of work on the issue, Singh saw more and more that climate change was at its root.

As the global lead on climate change for international NGO ActionAid, Singh now helps develop climate change adaptation strategies for communities while also engaging in global climate change policy. "We realized that unless we work at the policy level, unless we put pressure on governments and the United Nations system to have ambitious targets, we will not be able to survive," Singh said. "We need to reestablish our relationship with nature in a much more positive manner, where we respect nature and see human beings as a small part of nature rather than masters and exploiters of nature. I think that's the fundamental thing that I have learned from my work in the climate change sector."

Singh, who is based in India, talked with *World Ark* about the current state of the climate change crisis, especially as it relates to families enduring hunger and poverty.





**WE HAVE SEEN COMMUNITIES LOSING THEIR HOMES, THEIR INCOMES TO CLIMATE IMPACTS. AND THE INTENSITY AND FREQUENCY OF DISASTERS ARE INCREASING. SOME COMMUNITIES ARE UNABLE TO COPE.**

Obviously, climate change is something that affects everyone on the planet. But how does climate change affect those already suffering from hunger and poverty?

What we are seeing is that climate change is eroding the development gains we made in developing countries over the last several decades. We have seen communities losing their homes, their incomes to climate impacts. And the intensity and frequency of



disasters are increasing. Some communities are unable to cope. Before they cope from the previous disaster, another hits them and hits them harder. That not only takes away their income but pushes them back into the vicious cycle of poverty. These instances are being seen in developing countries more and more. As we see the temperature continue to rise, the frequency

and intensity of natural disasters have increased. And governments do not have resources to help.

We've also seen people being forced out of their homes. Just to give you data, 18 million people were forced out of their homes just last year, and this data is from 130 plus countries by IDMC, the Internal Displacement Monitoring Centre. Within this number, there is an increasing trend of displacement due to natural disasters. Climate happens to be the biggest cause for natural disasters.

**How often are we seeing families displaced as a result of climate change? How big of a difference is this from five years ago or 10 years ago?**

The number has been increasing quite rapidly. In fact, these are all very conservative numbers because it's very hard to monitor displacement when it happens on a seasonal basis to nearby towns. What we're also seeing is a trend of people who used to migrate for one season now migrating for two seasons. And we've also seen permanent migration.

For example, in Sundarbans, which is a unique mangrove system spread across India and Bangladesh, recently I've seen sea level rise swallowing kilometers of land and moving people permanently. They've lost the land, and governments are unable to support these people. So young people migrate, leaving behind elderly and women and children. The situation is getting really, really bad in places like Sundarbans, which are far more vulnerable to climate change. We've also seen how increasing salt water intrusion

is making land unusable for farming communities. As you know, most developing countries are still agrarian economies. Climate change is directly impacting food production and distribution, which is causing much more hunger. Many people have very little resources to cope with such impacts, and governments are finding it really hard to ensure food security for their populations.

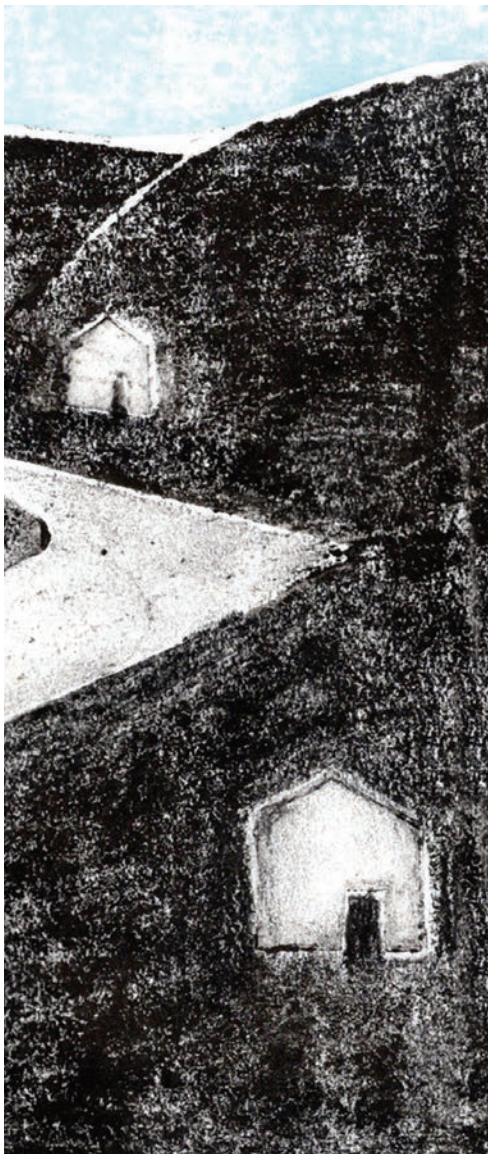
**You've written about migration as a possible adaptation for climate change. What do you mean by that?**

I make a distinction when I talk about migration as adaptation. I think we need to differentiate between safe and unsafe migration. It's extremely important. Unplanned and unsafe migration leads to exploitation and abuse and a lot of human rights violations. When it is done in a much more planned manner with support from government agencies and [civil] society, you find it really becomes an adaptation strategy.

So yes, migration can be an adaptation strategy if it is done in a planned manner, respecting human rights.

**What does it look like when it is done in a planned manner?**

Governments must map which communities will be impacted and which communities are going to be displaced. And now, as the climate science is getting better, we should be able to make those projections well in advance and should be able to identify communities who are at risk and then the planned relocation process should begin.






When it comes to planned relocation, where the area is going to become uninhabitable, we need to come up with a detailed plan for what these communities can do in terms of livelihoods and what kinds of housing needs they have. Because when it comes to housing, it's not just about four walls and a roof, it's also about respecting their culture,

respecting their livelihood.

Each livelihood requires a different kind of housing. For a fisherfolk community, just to give you an example, you need a space to park their boats and dry their fish and mend their nets. It's going to be very different from someone who is a craftsman. We really need to understand their livelihood pattern before we talk

about designing houses. When it's done in such a planned manner, especially with participation of the communities, then they are able to cope with the climate impact and are able to respond to the crisis in a much, much better manner. But that would require resources, and that is the biggest challenge that we face when it comes to climate action.



## WHEN [MIGRATION IS] DONE IN SUCH A PLANNED MANNER, ESPECIALLY WITH PARTICIPATION OF THE COMMUNITIES, THEN THEY ARE ABLE TO COPE WITH THE CLIMATE IMPACT AND ARE ABLE TO RESPOND TO THE CRISIS IN A MUCH, MUCH BETTER MANNER.

**Taking into account the current state of climate change, poverty, international politics, etc., what does the trajectory look like in the next 10, 20, 30 years?**

We are already living in a one-degree-warmer world, so the number of disasters and the increased frequency and intensity we have seen is because of that one-degree temperature rise. The whole climate system depends on temperature. A slight increase in temperature can disrupt the entire climate system, and that's exactly what we are seeing. Global warming is the input, and climate change is the output that we are seeing.

The writing is on the wall. Climate impacts are rising, and we have to move much, much faster to deal with the crisis. The recent [United Nations Intergovernmental Panel on Climate Change] report, in fact, said we only have 12 years to bend the curve. We have to reduce emissions dramatically, otherwise we're going to run out of the carbon budget, as we call it. We have to bring down emissions by 45 percent by 2030 and reach net zero by 2050. That would require huge effort from all countries, and particularly developed countries who have more resources and capacity.

We also have to look into the unsustainable lifestyles and consumption patterns that we have, particularly in the

West. And developing country economies are also embracing the same model. The whole development model itself needs to be challenged and revamped entirely. We have to be mindful of our carbon footprint and change our lifestyles and production systems. These are fundamental things that we really have to do in the next couple of years and decades if we want planet Earth and the ecosystem to survive.

At the same time, we also have to invest heavily in adaptation. As climate impacts increase, everything needs to be re-looked at. For instance, the kind of houses we are building, the kind of transport systems we have, the infrastructure we are creating, the way we do agriculture, the way we exploit marine resources. Everything has to be re-looked, from the perspective of the protection of ecosystems and nature.

**Most of the information we hear about climate change is really alarming. Is there any hopeful piece of climate change information that you're aware of or that sticks out in your mind?**

Well, yes, there are a lot of doom and gloom messaging and scenarios. There is no doubt about it, and we can't ignore that. But at the same time, there are some silver linings that we see. For example, the way that renewable energy costs have come down,

and the way economies, both developed and developing, are adopting renewable energy are definitely positive signs. There is a lot more discourse on spending on public transport. And there are question marks around the overconsumption patterns that we are seeing, so there are questions being raised. There is a lot more awareness about protecting ecosystems, and the discussion on the environment is now coming back to the discussions around economy. We can't look at economy ignoring environment, so there is a growing recognition of that.

Another positive thing that I see is that climate change has brought several struggles together. So civil society organizations that were just working on poverty issues or environment issues or human rights issues are coming together and trying to build a new common narrative that connects all the work that we have been doing.

**In the United States, we have a lot of people who don't believe that climate change is real. Is that a problem outside the United States?**

Well, it's not such a problem in developing countries, fortunately or unfortunately, because of the kind of impacts that we are seeing. And, thankfully, our political leaders [in South Asia] have not been climate deniers.





So there is no false or fake propaganda happening against climate change.

I think that is also related to the kind of economies we have in developing countries. Agriculture happens to be one of the strongest sectors of the economy, and that's why people do have a relationship with nature much more than in the industrialized economies.

**How would you suggest talking to someone who doesn't believe in climate change?**

If you had asked me five years ago, I would have said it's difficult to convince a lay person about climate change, which is going to hit us a couple of years or decades later. Unfortunately, now you can ask anybody, "Do you see weather getting erratic? Do you see different signs of early flowering or late flowering? Or do you see disasters hitting us much more than in the last few years?" Everybody is realizing that there is something wrong with the entire planet system, and weathers are not behaving the way they should. And people are facing it, whether it's London or New York or Delhi or Dhaka.

What is required now when we speak to the person on the street is what we can do to change that, whether it is an individual action or a collective action or collectively putting pressure on our own governments or the global system. For me, that is the next level of conversation we need to have with people on the street. Because everybody is realizing there's something wrong with the system. ■

Heifer International is giving farmers the tools they need to feed their families while adapting to the new realities created by climate change.

To join our efforts, see the envelope between Pages 24 and 25 — your gift will be doubled!



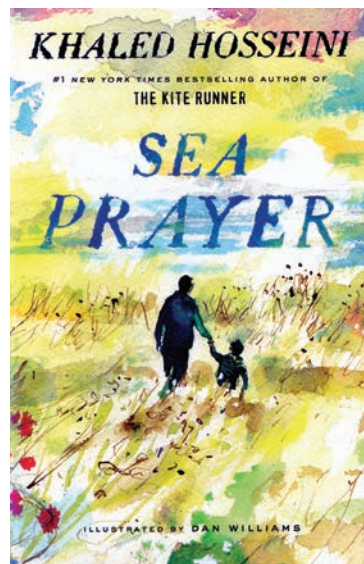
# The Refugee Experience, Illustrated

By **Austin Bailey**, *World Ark* editor

**R**eleased amid the onslaught of heart-wrenching news about emigration, *Sea Prayer* may be the *Sophie's Choice* for our century. Like the latter, *Sea Prayer* follows a parent's impossible decision while surrounded by war. This time, though, the parent telling the story isn't trapped in the jaws of the Holocaust, but instead is fleeing Syria before bombs or chemical weapons kill his son. His choice is this: Do you stay home, in a country aflame with explosions and gunfire? Or do you leave all that you have behind and board a flimsy raft on an ocean crossing that very well could be fatal?

Can you even imagine having to choose?

Written as a letter from a father to his son, the format of *Sea Prayer* echoes *Between the World and Me*, the 2015 National Book Award winner by Ta-Nehisi Coates. Both books warn of the perils brown-skinned children face in the political landscape of modern Western culture. But



**Sea Prayer**  
By **Khaled Hosseini**  
Hardcover | \$15.00  
48 Pages

while Coates' book is written to his real-life son, *Sea Prayer* is a fictionalized account inspired by the story of Alan Kurdi, the 3-year-old Syrian boy who drowned in the Mediterranean



while trying to reach Europe in 2015. Kurdi's name may not ring a bell, but the heavily circulated photo of his lifeless body washed up on a beach became an instant icon of the Syrian refugee crisis. If you've seen the picture, you will never forget it. "In the year after Alan's death, 4,176 others died or went missing attempting that same journey," we learn in the book's postscript.

*Sea Prayer* is not the first tear-jerker for the Afghan-American author Khaled Hosseini, who is well-known for his New York Times best-sellers *The Kite Runner*, *And the Mountains Echoed* and *A Thousand Splendid Suns*. An immigrant himself, Hosseini was born in Kabul, Afghanistan, and moved to the United States in 1980. He takes on the refugee issue with personal expertise and a deep compassion. With artistry and heart, he illuminates the refugees in *Sea Prayer* not as "illegals" or faceless migrants, but as fathers and sons from a beautiful, culturally rich country who love their families like we love ours and are only pulling up stakes because they have to. They are parents and children who have no better



choice than to leave everything they have in hopes of staying alive.

The book's delicate cover art and whispery title belie the blistering politics at the heart of the story. We find ourselves in the middle of a fresh conflagration in the already hot immigration debate as conditions in Syria, Yemen, Honduras and elsewhere send people in search of safety. The most recent numbers from the United Nations show that 68.5 million people were displaced worldwide at the end of 2017 as a result of persecution, conflict or violence. Developing countries shelter most of these displaced people despite limited infrastructure and other resources. And immigration has become a defining issue in European elections. In the U.S., headlines



Your mother is here tonight, Marwan,  
with us, on this cold and moonlit beach,  
among the crying babies and  
the women worrying  
in tongues we don't speak.  
Afghans and Somalis and Iraqis and  
Eritreans and Syrians.  
All of us impatient for sunrise,  
all of us in dread of it.  
All of us in search of home.  
  
I have heard it said we are the uninvited.  
We are the unwelcome.  
We should take our misfortune elsewhere.

about "migrant caravans" with thousands of people from Central America set off political firestorms.

And so it's notable that in this thin book – the story itself is only 42 pages – Hosseini manages to keep readers' minds focused on the characters, their losses and their challenges, without straying into hot-button geopolitical debates. In this fictionalized account illustrated with dreamy, amorphous watercolors, Hosseini is able to cut out the politics and humanize immigrants, making them both relatable and sympathetic. By maximizing on his artistic license, Hosseini crafts a story that humanizes

migrants more successfully than journalists' photographs and on-the-ground reports ever could.

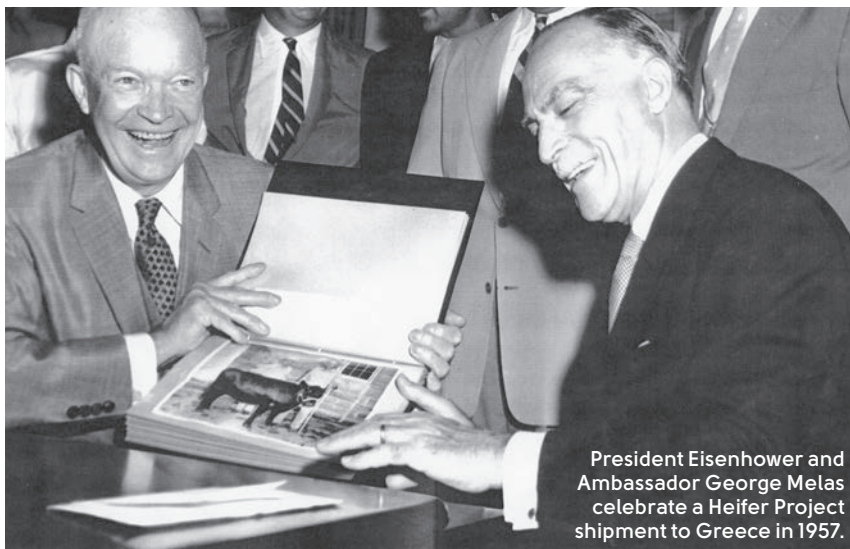
It would be easy to mistake this slim and fully illustrated volume for a children's book. Please don't. Both Publishers Weekly and Kirkus tout *Sea Prayer* as a book for readers of all ages. But unless you're ready to dive headlong into discussions with your 7-year-old about danger, death and parents' broken promises, you probably want to steer clear until at least the tween years.

Hosseini will donate all of his proceeds from *Sea Prayer* to the United Nations High Commission on Refugees and to The Khaled Hosseini Foundation to fund aid to refugees. ■



# Presidential Praise

By **Molly Mitchell**, *World Ark* writer



President Eisenhower and Ambassador George Melas celebrate a Heifer Project shipment to Greece in 1957.

PHOTO FROM HEIFER ARCHIVES

This year we're celebrating Heifer International's 75th year of working to end hunger and poverty and care for the Earth. As we look back over our history as an organization, we are proud that as we have matured into a world-class nonprofit, many world-class leaders have taken notice of our work, including several United States presidents and first ladies. Here is a short retrospective of what a few of these prestigious leaders have said about Heifer.

## Ike Liked Heifer

President Eisenhower donated several of his own prize Angus bulls to a Heifer project in Greece. He also donated a bull to Heifer's relief project in Korea in 1972, the same year that First Lady Mamie Eisenhower joined Heifer Project International's Advisory Council. At the time, Heifer's International

Advisory Council functioned as a liaison between the organization and prominent world citizens who endorsed Heifer's work and wanted to lend their support. "It sounds like a fine project and I am pleased to lend my support," said First Lady Eisenhower when she distinguished the Advisory Council with her membership.

## The Clintons Reach Out

Heifer International came together on common ground with former President Clinton and the Clinton Foundation in Haiti in 2013, when Heifer Haiti's *REACH* (*Rural Entrepreneurs for Agricultural Cooperation in Haiti*) project was in full swing following the devastating 2010 earthquake. The former president visited Haiti with a delegation of executives key to agricultural development in Haiti, including Heifer's President and CEO Pierre Ferrari. In a wrap-up speech at the Port-au-Prince Heineken plant announcing that company's \$40 million investment and commitment to local sourcing of sorghum for the brewery, Clinton thanked Ferrari and Heifer International by name, in addition to others in the delegation, for their contributions in Haiti.

"This has been a great day," Clinton said in a press conference at the brewery. "One of the great debates that I hope to see favorably resolved while I'm still alive is whether the world population can go to 8 or 9 billion or wherever it's going, and we can deal with the challenges of climate change in a way that enhances and empowers smallholder farmers instead of throwing them off their lands with the pipe dream that large-scale mechanized farming can solve that problem."

Former First Lady and Secretary



of State Hillary Rodham Clinton granted us an interview in *World Ark's* Holiday 2012 issue, discussing her lifelong work to improve the lives of women and children in Arkansas as Arkansas' first lady and around the world as the nation's top diplomat. Empowering women has always been one of Heifer's nearest and dearest values, and Secretary Clinton voiced our feelings and experience when she said, "Women have shown time and again that they will seize opportunities to improve their own and their families' lives. And even when it seems that no opportunity exists, they still find a way."

### The Bushes Visit the Bush

Former First Lady Laura Bush took the time to visit a Heifer International project in Zambia in

2012. She toured the Mpima milk processing center in Kabwe and met some of the families working with Heifer there. Mrs. Bush said she is grateful for Heifer's work and "all the ways you help the people of Zambia." But the gratitude lies on our side: we were appreciative of the time Mrs. Bush took to learn more about our Zambia projects and learn about the needs of people there.

After her short visit to a Heifer project in Zambia, Mrs. Bush agreed to an interview in *World Ark* magazine, detailing her work as the chair of the George W. Bush Institute Women's Initiative, focusing on a program aiming to unite and empower Egyptians at a critical time for women's rights in their country. Heifer's work has long recognized the profound power of community among women,

so we couldn't have agreed more when she said, "It's important to have women's voices at the table. A broad network empowers women and gives them more of a voice."

### Bartlett for Heifer

Even fictional presidents love Heifer. In episode 12, season 4 of *The West Wing*, NBC's serial political drama of the early aughts, the unforgettable Press Secretary C.J. Cregg sets up a photo op for President Bartlett to promote Heifer International's work. Confused when Heifer sends a goat instead of a cow, shenanigans ensue as various bemused characters encounter Heifer's goat. While not too keen on the idea at first, the episode ends with President Bartlett and his senior staff doing the photo op in good humor for a good cause. ■

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Thousands of companies across the country match employees' gifts to Heifer. Visit [www.heifer.org/WAmatching](http://www.heifer.org/WAmatching) or call **888.5HUNGER (888.548.6437)** to find out if your employer matches gifts to Heifer, and your donation could have twice the impact!





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TO CREATE AND CUSTOMIZE  
YOUR FUNDRAISING PAGE!





# Heifer and Prentiss Institute Leave a Lasting Legacy in Mississippi

By Jason Woods, *World Ark* editor

Heifer International is celebrating its 75th anniversary in 2019. As a part of the celebration, we're sharing some important moments in our organization's history.

**I**n the summer of 1955, Heifer Project — now Heifer International — started working with the Prentiss Institute, an African-American junior college and vocational school. It was the start of a 30-year partnership that eventually helped empower families to lead the charge for desegregation in their community.

The partnership with the Prentiss Institute in Prentiss, Mississippi, was one of Heifer's first full-fledged projects in the United States. Just two months after the relationship began, and in the same state, 14-year-old Emmett Till was lynched after being accused of bothering a young white woman. The brutal murder was one of many important sparks of the black civil rights movement, but it's also a visceral reminder of the context and



A Prentiss, Mississippi, family receives Heifer Project chicks.

PHOTO FROM HEIFER ARCHIVES



danger of living as a person of color in that time and place.

Prentiss is the county seat of Jefferson Davis County, named for the president of the Confederacy, and throughout the years it has been listed as one of the poorest in the country. The Prentiss Institute opened its doors in 1907, a year after the county was created from pieces of surrounding counties.

In the early 1900s, Prentiss only had a population of 200 and the Institute had to convince parents in rural areas to send their children there. The initial 40 students paid for their education through commodities their families had — eggs, chickens, produce. Through years of perseverance and success, the Institute counted more than 700 students and a faculty of 44 by 1953. The school grounds grew from 40 acres to 500, and from one building to 24.

On Christmas Day 1955, State Times reported, “Prentiss Institute, a 48-year-old private junior college and vocational school, received 15 pure-bred heifers last week for distribution to families who want to diversify their farm income but are not financially able to do so.”

According to the news report, upon the arrival of the second shipment of heifers in Prentiss, “the Institute asked white leaders in Jeff Davis County to help them donate some of the animals to white families.”

Years later, the Prentiss Institute and Heifer worked together to ensure that black 4-H members could show the animals they received through the project in county and state fairs, something that previously was not allowed.

In the spring of 1968, Willis A. McAlpin moved to Prentiss as a Heifer

Project employee to oversee livestock donations and instruct families in animal care and the improvement of agricultural practices. He also managed the 500-acre farm owned by the institute.

On April 4, 1968, McAlpin’s second day on the job, word came that Dr. Martin Luther King Jr. had been assassinated at the Lorraine Motel in Memphis.

“Things were pretty tense for a while,” said Dr. A.L. Johnson, then dean of Prentiss Institute, according to an April 1969 newsletter found in the Heifer International archives. “When Dr. King was killed, violence was in the air. Students were ready to explode any minute in frustration and anger against the white world. Even responsible adults asked themselves, ‘How will I answer my grandchildren when they some day ask me what I did on



A Heifer Project farmer in Prentiss, Mississippi.



A family of Heifer project participants stands on their porch.

PHOTOS FROM HEIFER ARCHIVES



PHOTO FROM HEIFER ARCHIVES

Community members say a prayer of dedication before receiving heifers as a part of the project in Prentiss.

that tragic night to avenge Dr. King's death?"

"Fortunately," continued Johnson, "Willis McAlpin, the new Heifer Project representative, arrived on campus just the day before. We knew he had come not to get but to give, and that he had left his family and a comfortable home in Iowa to come to Mississippi and show us how to manage our farms better. So we invited Mr. McAlpin to speak at the memorial assembly for Dr. King. His presence demonstrated to the students that white people aren't all against them, and reminded us of Heifer Project's help and friendship which has been proven over the years.

"As a result, we got through those days without a single incident of violence and went on to demand and receive equal treatment in areas where we had previously been discriminated against."

At the time of King's death, segregation permeated Jefferson Davis County. According to the Heifer newsletter from the archives, African-Americans "could not eat in white restaurants, or sleep in white hotels, or worship in white churches. Even at the Dairy Queen, black children had to wait at the side window while whites at the front window were served first."

But six months to a year later, things started to change for the better. Jerry Bedford, Heifer Project director of development, wrote:

"Unanimously, if not joyously, in response to growing black pressure, white businessmen in the town of Prentiss signed a statement promising equal service to all customers regardless of race. Restaurants, theaters, hotels are now open to everyone. 'White Only' signs have been removed from restroom doors,

and gas station attendants clean the windshields and check the oil for black customers as well as white."

Johnson attributed part of the reason for the change to the Institute's partnership with Heifer. "Heifer Project is one of the influences that helped us bring about this change peacefully," he said. "Receiving help from Heifer Project strengthened our people's will to do everything they can to help themselves."

In 1969, public schools were begrudgingly integrated in Mississippi, and enrollment at all-black schools like the Prentiss Institute dwindled. By 1989, the Prentiss Institute closed its doors, ceasing to function as an educational institution. Shortly before that, the partnership between Heifer and the institute came to a close; but the legacy of that partnership lives on. ■



PHOTO BY PHILIP DAVIS

“When I told him we’d get three piglets but would have to pass three on, he said he didn’t want to do it. It took a long time to convince him.”

—Rith Chantha, mother of three

Rith Chantha of Cambodia’s Kampong Chhnang province knew she could make a better life for herself and her three sons, but her husband Sun Sitaol was afraid the project would fail and that he would have to cover the cost of any animals lost. Rith Chantha persevered, and her hard work yielded enough money for the family to move from a tiny shack made of reeds to a handsome new home with plenty of room for everyone. She happily shares the secrets of her success with fellow Heifer project participants, and she also teaches women how to read and write.



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SPRING IS A GREAT TIME  
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Spring is an important time for our farmers around the world, too, as they prepare the fields for the upcoming year. Your continued support ensures that these farmers have the resources and training necessary for a successful crop, which they can use to feed their families and sell for income. Thank you for helping create better futures for others around the world!

For more information, contact **Debbie McCullough** at **501.907.4922** or **[debbie.mccullough@heiferfoundation.org](mailto:debbie.mccullough@heiferfoundation.org)**.





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