BTHE MAGAZINE OF HEIFER INTERNATIONAL

STRENGTH IN THE FACE OF ADVERSITY

RENEWING THE EARTH THROUGH REGENERATIVE AGRICULTURE

REBUILDING IN THE SHADOW OF CONFLICT

38 SACRED COW DOCUMENTARY LOCKS HORNS WITH BEEF DETRACTORS

PLUS

Food Advocate and Author Speaks on U.S. Farming





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RESILIENCE IN THE FACE OF ADVERSITY AND INNOVATION DESPITE OBSTACLES



Dear Determined Humanitarians,

This issue is a celebration of resilience in the face of adversity and innovation despite obstacles. We know the challenges are great, but we here at Heifer International are even more committed to our mission to end hunger and poverty. Despite the upheaval caused by the COVID-19 pandemic that has impacted the lives of millions as well as our work in 21 countries around the globe, our project participants and our partners are embracing the challenge.

We are inspired by their courage every day.

The impact of the pandemic is truly global, and we're proud to share some of the work that inspires us. In this issue you'll visit with Leah Amongi in Uganda, who is an entrepreneur in the Learn for Agribusiness project. Amongi is a leader in her community and has been working to train rural farmers and bring them resources via her motorcycle during the lockdown. She's on the cover of this magazine, zooming through the countryside. Her story draws attention to the

marginalized communities that are struggling to adapt to conditions that have left them unable to transport their produce to market and unable to earn an income.

Here in the United States. the COVID-19 pandemic has spurred appreciation of strong supply chains and locally produced food. We're so proud to report that unlike other meat processing plants around the country, our partner Cypress Valley Meat Company in Clinton, Arkansas, has continued operations during the pandemic in a responsible way due to the commitment of owner and co-founder Andy Shaw to safe and humane practices.

In Nepal, goat farmers Ganga Gharti and her husband, Rudra Pun, are an example of what it takes to rebuild after crisis. With Heifer's help, this couple is thriving after the decadelong Nepalese Civil War. Their story of courage in the face of adversity is a reminder than we can all rebuild and recover even when it seems that all hope is lost.

I'm also excited to share

with you a transcript of the fireside-style chat I had with Leah Penniman, a farmer and author who's making a difference tackling racial injustice. Leah wrote *Farming While Black*, the first comprehensive how-to guide for Black farmers. Her work has been widely recognized, and we're thrilled to have had the opportunity to listen and learn how we here at Heifer can work toward greater inclusion and even greater equality.

Finally, I would like to take a moment to reflect on the ways in which Heifer works to bring communities together, at home and abroad. Our strength is our diversity, our passion for fairness and caring for others, and our commitment to being stewards of the Earth. We're in this together, and I would like to express my gratitude to you for your support as we navigate these uncharted waters.

Yours for a better world,

Tene M. Ferran

Pierre U. Ferrari @HeiferCEO



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worldark





COVER: Farmer and agri-input entrepreneur Leah Amongi zooms through the fields of Dokolo District, Uganda. (Photo by James Akena)

TOP: Patricia Morocho, a member of the La Changa Collective supported by Heifer, puts together baskets of fresh produce for delivery in Cotopaxi, Ecuador. (Photo by Isadora Romero)

7 STRENGTH IN THE FACE OF ADVERSITY

The COVID-19 pandemic quickly put many people around the world, including farmers and others working in food systems, in extremely difficult financial situations. But in the midst of the crisis, Heifer International project participants are responding with resolve and resilience, finding ways to continue supporting their families and communities.

30 REBUILDING IN THE SHADOW OF CONFLICT

Conscripted by Maoist rebels in their youth, Ganga Gharti and Rudra Pun met during the Nepalese Civil War and escaped together toward the end of the conflict. Starting over was difficult, but the couple made a new life together with the help of Heifer Nepal.





A LONG HISTORY OF GIVING

We would like to share an uplifting story from our congregation with you. Even in a time filled with fear and anxiety, The Church of the Pilgrimage of Plymouth, Massachusetts, continues their commitment to ending hunger and poverty by supporting Heifer International.

For 40 consecutive years, the church has raised at least \$5,000 for the donation of a Gift Ark, which is enough to provide two water buffalos, two cows, two sheep, two goats, as well as bees, chicks, rabbits and more. In 2020, the church's campaign raised its largest gift yet, \$7,300, to continue the streak.

One of the most exciting efforts of the campaign was a drawing of an ark designed by Marc Eaton, a youth member of the church. Each time \$1,000 was donated, another tier on the ark drawing was added. Marc said the drawing enabled him to combine his love of animals and art while helping raise money for Heifer. The themes were ocean life, farm animals, woodland creatures and safari, with the top layer featuring some of Marc's favorite animals, including the opossum and red panda.

The Church of the Pilgrimage has a long history of supporting



Heifer International. In 1971, then-Pastor Gary Marks, helped initiate the first campaign to raise \$5,000. Heifer had just moved its Northeast Office to Plymouth and set up a livestock center there, where 200 to 400 food-producing animals were sent each year to developing countries to help end poverty and hunger. In 1984, that office moved to Overlook Farm in Rutland, Massachusetts, where it served Heifer until 2017.

More recently, the church's newest pastor, Dr. Helen Nablo,

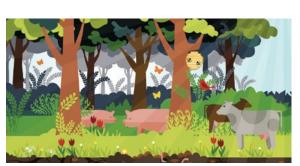
represented the congregation in Honduras, to see Heifer's work firsthand. She said the highlight of her trip was attending a Passing on the Gift ceremony.

There is no doubt that The Church of the Pilgrimage will continue to Fill the Ark every year going forward. We are committed to Heifer International, and we want to do our part to share Heifer's love throughout the world.

Rosalee Sinn and Paula Caramello Plymouth, Massachusetts

WHAT WOULD YOU LIKE TO SEE IN WORLD ARK MAGAZINE? Take our survey and let us know at HEIFER.ORG/WASURVEY

worldark







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WE WANT TO HEAR FROM YOU!

Please send your comments to worldark@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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RENEWING THE EARTH THROUGH Agriculture

COVER CROPPING

Fields are never fallow, with diverse perennials and cover crops protecting and enriching the soil.

A NO-TILL APPROACH

Avoids tilling, a common practice that breaks up the soil to ready for planting crops, but also kills important microorganisms in the soil, releases stored carbon into the atmosphere and leads to erosion.

RAISING PIGS IN FORESTED AREAS

Forested pigs are healthier and can revitalize overgrown areas by eating invasive species other animals can't digest.

TOGETHER, THESE REGENERATIVE PRACTICES ALLOW THE LAND TO REST AND RECUPERATE NUTRIENTS WHILE PROMOTING MICROBIAL AND VEGETATIVE DIVERSITY. THAT LEADS TO:



HEALTHIER CROPS AND BETTER YIELDS



INCREASED ABSORPTION OF RAINFALL



LESS

EROSION



INCREASED RESILIENCE TO DROUGHT AND FLOODING

Regenerative agriculture is a farming method that rehabilitates the land, leaving soil richer and more productive and the ecosystem healthier. It is particularly effective at carbon sequestration, which lessens atmospheric carbon, a big driver of climate change. Below are some of the regenerative farming methods we use and teach to small-scale farmers at Heifer Ranch in Perryville, Arkansas. These methods mirror our projects around the world.

CREATING VEGETATION BUFFERS

These serve as natural barriers to erosion and encourage wildlife habitats.

CROP DIVERSITY

Growing a variety of plants in the same area nourishes the soil, as opposed to monocropping, which is insufficient to build healthy land, as it depletes the earth and requires extractive practices to maintain optimal plant growth.

NO CHEMICAL INPUTS Chemicals can lead to erosion, decreased soil fertility and a lack of biodiversity. HOLISTIC PLANNED GRAZING Cows are moved through a series of pastures to prevent overgrazing and promote plant diversity.

IN ADDITION TO HEALTHIER SOIL, PLANTS AND ANIMALS, REGENERATIVE AGRICULTURE LEADS TO:



BETTER CARBON DRAWDOWN OR SEQUESTRATION

With the help of grazing animals, healthy plants pull carbon out of the atmosphere and into the soil, helping mitigate climate change



IMPROVED WATER CYCLES When soil holds more carbon,

it's also able to absorb and retain more water, leading to restoration in the water cycles



GREATER BIODIVERSITY Healthy, well-managed farmland means a healthier, naturally functioning ecosystem overall good life TIPS FOR BETTER LIVING

Mom's Meatloaf: The Ultimate Comfort Food

Filling, warming and easy to whip up, this is the last meatloaf recipe you'll ever need.



By Liz Ellis, World Ark contributor

COMFORT FOOD, a delicious slice of nostalgia that soothes your soul – for me, that's my mom's meatloaf. Of all the dishes my mom made for our family growing up, this meatloaf was handsdown our favorite meal. Even with only three of us to enjoy it, the loaf pan of juicy, sweet and savory goodness almost never lasted long enough to become leftovers. And it's not hard to understand why – Mom's take on this classic recipe is the dinner version of a warm hug. I'm pretty sure it's therapeutic. Featuring simply seasoned beef and a tangy, sweet tomato sauce, Mom's meatloaf is the perfect recipe to add a touch of homecooked goodness to your next Zoom dinner party or small (and properly precautious) family gathering.

As we reflect on 2020 and gather ourselves to face new challenges and meet our resolutions in 2021, a taste of comfort is more than a reminder of good things. It's an opportunity to nourish ourselves and be kind to the Earth. We may not be able to share a meal with loved ones quite yet, but we can reach out in ways that are available to us, and we can eat amazing food while we're at it. ■



MOM'S MEATLOAF RECIPE Serves 6

LOAF INGREDIENTS

- ²/₃ cup breadcrumbs
- 1 cup milk
- 1¹/₂ pounds ground beef
- 2 eggs, lightly beaten
- ¹/₄ cup onion, minced finely
- 1 teaspoon salt
- ¹/₂ teaspoon sage, dried
- Dash of pepper

INSTRUCTIONS

- 1. Preheat oven to 350°F.
- 2. Combine the loaf ingredients in a large bowl and mix them together well, making sure to incorporate the egg and the breadcrumbs thoroughly. Press the mixture firmly into a greased loaf pan, and smooth out the top with the back of a spoon.
- 3. In a small bowl, whisk together the sauce ingredients and spread evenly over the loaf.
- 4. Bake at 350°F for 50 minutes. Allow to cool for at least 10 minutes prior to serving.
- 5. Plate up the piping-hot goodness alongside potatoes and green peas or asparagus for a perfect and easy springtime supper with soul.

WATCH THE VIDEO AT HEIFER.ORG/MEATLOAF

SAUCE INGREDIENTS

- ¹/₄ cup ketchup
- ¹/₄ teaspoon nutmeg
- I teaspoon mustard
- 3 tablespoons brown sugar



When I worked as a chef at the former Heifer Farm in Rutland, Massachusetts, I delighted in sharing this meatloaf with crowds of hungry Heifer supporters. Because I used beef that had been sustainably raised with room to roam on Heifer Farm, it was extra special. Though my grass-fed beef comes from Grass Roots Farmers' Cooperative these days, I still like to add that extra-special touch when I make Mom's meatloaf for friends or family. If you can, I encourage you to do the same. Fortunately for you, Grass Roots Farmers' Co-Op delivers. With a click of your mouse, you can not only support small-scale farmers in the United States, but you can also feel good by supporting a food system that betters the Earth, improves the soil, and treats people and animals with respect. Go ahead — do some good with your fork at **GRASSROOTSCOOP.COM.**

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FOOD ADVOCATE AND AUTHOR Speaks on U.S. Farming



Interview by Pierre Ferrari, Heifer president and CEO

Leah Penniman loves being a farmer, but after doing the job for more than two decades, she has no illusions about it. "It's a hard job," she said. "We don't get to prance through the fields just picking flowers in a white dress."

In addition to farming, Penniman is a mother, soil steward and food justice activist, as well as the author of *Farming While Black*, the first comprehensive how-to guide for aspiring African-heritage growers to reclaim their dignity as agriculturists, a book she describes as a love song for the land and her people.

In 2010, Penniman co-founded Soul Fire Farm in Grafton, New York. With a mission to end racism in the food system and reclaim ancestral connections to the land, Soul Fire provides farmer training for Black and Brown people, a subsidized farm food distribution program, antiracism training, and organizing toward equity in the food system. Penniman and Soul Fire Farm have been recognized by the Soros Equality Fellowship, Fulbright Program, Grist 50 and James Beard Leadership Award, among others.

Penniman chatted with Heifer International President and CEO Pierre Ferrari about antiracism, food apartheid, soil health and farming during the COVID-19 pandemic. Excerpts from their conversation, which is part of Heifer's ongoing live chats, follow. The full discussion is available at www.heifer.org/leahpenniman.



e Farm's Practical Gu

Leah Penniman



PIERRE FERRARI: How do organizations think about how to become anti-racist organizations?

LEAH PENNIMAN: Essentially you're asking, "How do we undo 500 years of white supremacy and colonialism. and all of its associated forces?" And so there's no three easy steps. There's no quarterly returns. We're really talking about deep work. And it's something that we've worked really hard as an organization at Soul Fire Farm to figure out how to help the field in that regard. We spent some time interviewing over 500 different Black- and Brownled organizations and farms with that very question. What

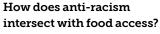
does it take to really become an anti-racist society? And out of that, we built an action step guide. We built a training, which you can find on our website.

I think we're dealing with a reckoning right now, where people who previously were unaware, for whatever reason, that racism is a pillar of our society are now realizing that. And realizing that a lot of things were taken. The land was actually taken from Indigenous people, and then stolen all over again from Black and Brown people, especially in the early 1900s. They're realizing that there's a whole lot of unpaid wages that are due, and then that's compounded itself into a major wealth gap.

They're realizing that we have a whole history of policies that we affectionately term "white affirmative action." things like the Homestead Act and the GI Bill, that hugely benefited white people and didn't benefit people of color. And again, it exacerbated a wealth and access gap. In order to have a fair society and a level playing field, there are resources that really need to be given back. I think that sometimes when we talk about racial equity, we get stuck in the diversity conversation. And I'm not saying that diversity is not important, diversifying your board and your staff. But fundamentally, change is going to involve a shift of resources and power.

TOP RIGHT

Leah Penniman (right) and her children, Emet Vitale-Penniman (left) and Neshima Vitale-Penniman (middle), hill potatoes at Soul Fire Farm.



That's a really big question. We did write a guide for farmers who are interested in making their food accessible to low-income people. It's called *Sowing the Seeds of Food Justice*. You can find it on the *soulfirefarm.org* publications page. It's free, and it talks about how to stay financially viable while making your food accessible.

I will talk about strategies that Soul Fire Farm has used because, obviously, we have a food justice mission. One is for our vegetables, we've used what's called a slidingscale CSA. And I want to shout out Black farmer Booker T. Whatley for inventing the CSA, or Community Supported Agriculture, which at the time was called the Clientele Membership Club. It's basically a subscription service where you pay either upfront or on a regular basis, and then get a weekly share of vegetables, meats, fruits, eggs, right? We allocate about half the shares to people who are middle income, and they're paying a little more than market value. And about half for people who are low income, who are paying less than market value. So it shakes out, right? That's one model that we've used. In the time of COVID, we've actually had such an increase in food insecurity in our area that we have shifted so that we're actually, this year, giving away 100% of our food.



I was struck by the use of the phrase "food apartheid" in your book. How did you come to it?

Well, Karen Washington, who I think you got to talk to recently, she's the one who taught me that term. She's a mentor of mine, a wonderful Black farmer at Rise and Root Farm and the founder of the Black Urban Growers network. And she corrected me when I used the term "food desert," which the government uses to define a census tract that is low income and where it's a distance to a supermarket.

But, of course, a desert is a natural ecosystem. It's this phenomenon that arises beautifully, really, out of the whole climatic shifts of the planet. There's nothing natural about a whole bunch of people not having enough



6

to eat, and Black and Brown folks, in particular, being disproportionately impacted by diabetes, heart disease and other diet-related illnesses. That is a human-created system. And it is connected to a history of housing segregation and redlining and divestment from communities. So apartheid is really more appropriate and also more hopeful. A desert cannot be defeated. Apartheid is humancreated, and it can be undone. So I think the name also gives us a sense of directionality in terms of how we're going to deal with it. There's nothing inevitable about it, right?

"There's nothing natural about a whole bunch of people not having enough to eat, and Black and Brown folks, in particular, being disproportionately impacted by diabetes, heart disease and other diet related illnesses. That is a human-created system."

How has Soul Fire Farm adapted in terms of all the disruption we've been seen since the beginning of the pandemic?

I feel proud of our team for how nimble we've been able to be. In addition to being a



farm that was able to shift all of our production to free doorstep delivery of food for people within a matter of weeks, which is amazing, we're also an advocacy and education organization. And so people started reaching out to us saying, "How do we grow our own food?" [and] "Can you support us?" And we ramped up our Soul Fire in the City home gardens program, which usually only has a few garden builds a year, to almost 50 so far this year. People who received a garden build along with the plants, the tools, the materials, the training, the network of other gardeners to connect with.

We train thousands of new Black and Brown farmers every year. We shifted a lot of that programming online for this year because we couldn't meet in person and so forth. I think that both in terms of our farm but also in terms of being a small organization that's really connected to our community, we're able to adapt and respond in ways that met folks' stated and immediate needs.

тор

Penniman uses aluminum foil collars to protect the tender stems of the hot peppers she's growing.

воттом

Soul Fire Farm, located in Grafton, New York, works to end racism in the food system and reclaim ancestral connections to the land.

Is localness important? Where are you on that dimension of the work that we're talking about?

I mean, I think local is extremely important among other important things, right? And I think, in the start of the pandemic, the brittleness of the food system became so apparent. There's just not a lot of slack in our supply chains in the industrial food system. If one thing goes wrong, you see this domino effect and suddenly there's no meat on the shelves and people are dumping milk and burying produce, and folks aren't able to get their basic needs met.

There's a need to have really resilient food systems. And one of the great advantages to local, agroecological, smallscale, diversified food systems "There's a need to have really resilient food systems. And one of the great advantages to local, agroecological, small-scale, diversified food systems is they're quite nimble and resilient."

is they're quite nimble and resilient. If the farmers market closes, that's okay because we know our customers, and we can quickly set up a farm stand and do no contact delivery. And we know the school down the street, and they need some lettuce for their free lunches. and we can do that. We saw small farms being able to adapt and fill in needs locally, whereas these big industrial food chains were absolutely unable to cope. I think that is one of the most important things

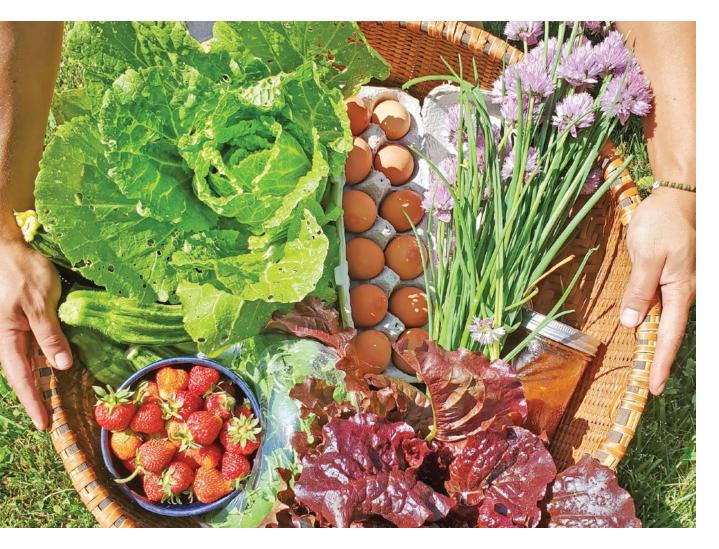
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about a local food system, its resilience and adaptation.

At the same time, is there a place for international fair trade? For my Haitian family to be able to send moringa for our tooth powders and their mangoes up here for our smoothies? Absolutely. Should that adhere to standards of ecological care, as well as rights for workers? Absolutely. So there's a place, I think, for nonlocal and international. But do we absolutely need to make sure that we have a strong, local, resilient food system? Of course. Otherwise, we're not going to make it for another generation.

I know you talk about soil quite a bit. It's part of the reason for farming, right?

I'm really into soil farming, personally. Yeah. So taking a little walk back in history, within just one generation of taking the plow to the Great Plains, European settlers burned up or oxidized half of the organic matter in the soil, which hasn't been put back, right? And the organic matter, for those who aren't science nerds, this is the carbonbased compounds, the life of the soil. It's the food for all the microorganisms. It's a



proxy for soil health and soil biodiversity. And of course, when you release carbon from the soil, you put it up into the atmosphere. So you see the first blips in the anthropogenic atmospheric CO2 in the 1800s with the tilling of the Great Plains. And my wonderful coworker Larissa Jacobson talks about how the work of regenerative farmers is actually to call that carbon and call that life back into the soil. That's our duty, that's our legacy. And so we do that at Soul Fire. We farm [using] Afro-Indigenous ancestral practices These are the practices of the Ovambo people, in terms of raised beds, the practices of Dr. George Washington Carver with cover crops and Cleopatra's vermicomposting. So we're taking our ancestral practices and watching that organic matter level, when we first [got] here, at 4%, go to 5, 6, 7, now 12%, which are precolonial levels of organic matter.

Here, you put your hand into the soil, and you pull up a fistful of earthworms and nematodes and countless bacteria and fungal mycelium, and the hawk flies over, and the sparrow is nesting, and the monarch butterflies are landing. There's this whole wonderful biodiversity that is actually part of what we're doing here on the farm.

LEFT A view from Soul Fire Farm.

RIGHT

Produce from this harvest at Soul Fire Farm was distributed at no cost to the doorsteps of local families living under what Penniman refers to as "food apartheid."

YOU CAN SHAPE THE FUTURE OF WORLD ARK MAGAZINE



Do you enjoy the magazine in your hands? Are there things you would like to change? How do you like to get stories from Heifer International? Let us know! Your feedback will help us determine the future of *World Ark*.



ALL YOU HAVE TO DO IS VISIT **HEIFER.ORG/WASURVEY** THE SURVEY TAKES JUST A FEW MINUTES. WE WANT YOUR OPINION!

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MEET FOOD HEROES IN UGANDA, ECUADOR, NEPAL AND THE UNITED STATES

Strength in the Face of Adversity:

Farmers and Local Food Systems Adapt to Meet the Challenges of COVID-19

Due to the COVID-19 pandemic, many farmers and others working in food systems saw their sources of income change radically or even vanish overnight, as much of the world locked down to slow the spread of the novel coronavirus.

> Although the challenges presented by the pandemic were – and still are – extensive, Heifer International project participants responded with resolve across the 21 countries in which we work. With access to the right resources, farmers successfully shifted their way of working and took advantage of opportunities to reconnect to markets.

> > The following stories are just a handful of the inspiring examples we've seen in the last year. From Uganda to Ecuador, Nepal to right here in the United States, small-scale farmers and entrepreneurs working with Heifer show resilience in the face of crisis while holding the solution to feeding their communities.

LEFT

Pilar Chamorro, holds a basket of food in Quito, Ecuador. (Photo by Isadora Romero)

Zooming to Brighter Futures in Uganda

By **Isa Ainemagara, Paul Muliika** and **Bethany Ivie**, photos by **James Akena**

NOTHING CAN STOP LEAH AMONGI,

not even a global pandemic.

Amongi is a 28-year-old single mother who lives and works in Uganda's Dokolo District. "It is not all that easy to find employment [here]," said Amongi. And that's putting it lightly. With more than 70% of its citizens between 18 and 30 years of age, Uganda has one of the youngest populations in the world. It also has one of the highest rates of youth unemployment in sub-Saharan Africa. With the help of Heifer Uganda, Amongi is working to give her peers the vital skills they need to change that statistic, and she isn't letting anything stand in her way.

In 2019, Amongi joined Heifer Uganda's Learn for Agribusiness project and was trained as a community agriinput entrepreneur. Through the project, Heifer Uganda is working to help young people, many of whom were unable to complete formal educations, to earn a living income through farming. It's Amongi's job to teach participants the essential skills they need to build a sustainable and profitable business in agriculture. Her lessons include weed and pest control, sowing good quality seeds, and line spacing, to name a few. Fortunately, that's her passion. "I joined the Learn for Agribusiness project because I am inspired to work with young people participating in agriculture," said Amongi. "I love the work I do because it enables me to share my technical agricultural skills, which can make a difference in the lives of the community."

Before COVID-19 struck, Amongi shared her expertise by facilitating



large sessions at 13 local farmer field schools in Dokolo. Then came the pandemic. The first case of COVID-19 in Uganda was reported in March 2020. Shortly thereafter, all Ugandan borders and points of entry were closed, and President Yoweri Museveni ordered a strict countrywide lockdown to limit the spread of the virus. With a stop in public transportation, a dusk-till-dawn curfew, and a ban on weekly markets and group gatherings, the lockdown kept Uganda's COVID-19 case count low but made life extremely difficult for citizens, especially rural farmers.

As restrictions eased and *boda bodas*, or motorcycle taxis, were allowed to



TOP

Community agri-input entrepreneur Leah Amongi rides her motorcycle to help farmers who have been isolated by the COVID-19 pandemic.

воттом

Leah Amongi passes hand sanitizer to a student during one of her agricultural training sessions. The gathering is small to adhere to lockdown guidelines.

I love the work I do because it enables me to share my technical agricultural skills, which can make a difference in the lives of the community.



66 I have an obligation to serve even within times of hardship. I look at it like a soldier on a battlefield.

- LEAH AMONGI

operate again, Amongi hired drivers to ferry her to farmers individually or in groups of five or less. Before COVID-19, Amongi paid 10,000 Ugandan shillings, or \$2.70 per day, for a ride to and from the field. Today, these same rides have easily doubled in price. Unwilling to be gouged and even less willing to leave farmers to fend for themselves, Amongi bought a motorcycle of her own. "COVID-19 is here to stay, and we cannot allow our farmers to starve," she said. "I have an obligation to serve even within times of hardship. I look at it like a soldier on a battlefield."

Amongi's new ride allows her to deliver critical farming supplies like

seeds, tools, irrigation equipment and fertilizers to farmers who are unable to access them. It also helps her make the most of her time. Now, not only can she reach more people than before, but she can work closely with other extension workers who are, likewise, working hard to keep young farmers afloat during this time of crisis.

Amongi's involvement with Heifer Uganda allowed her to share her talents and serve her community, and it's given her opportunity for growth. "It has built my capacity in so many ways, in getting soft skills on how to communicate, how to mobilize the community and how to interact with them," she said. With these abilities, Amongi aspires to create and coordinate her own projects, similar to *Learn for Agribusiness*, that help young Ugandan farmers who are struggling to make a living. It's safe to say that, when she's ready, there will be no better person for the job. ■



BOTTOM Leah Amongi hosts a training for a small group of farmers near Dokolo, Uganda.



ECUADOR

Faced with COVID-19 Pandemic, Ecuador's Working Class Keeps Pedaling

By **Jason Woods** and **Amanda Granda** Photos by **Isadora Romero**

WHEN THE COVID-19 PANDEMIC

REACHED QUITO, Ecuador, in March 2020, it hit the city's *barrios populares*, or low-income communities, the hardest. But in one barrio popular, a group of resilient young entrepreneurs supported by Heifer is doing the legwork necessary to distribute fresh, healthy food to their community while earning an income.

Karen Salcedo taught affordable ballet classes to children and managed the café for La Changa Art Collective. When the coronavirus outbreak shut down those opportunities, she found herself with an even more meager budget, accepting donations of food and money.

Salcedo and other members of La Changa shared those resources with others in need and created a solidarity network to coordinate donations through social media and then distribute them.

"We made weekly purchases to put together food kits containing 11 products, and we delivered them to the La Changa Cultural Center," Salcedo said. "In the case of older adults who, due to health conditions, could not leave their homes, we took their kits to them."

About 90 families received food kits, but as the pandemic wore on, the program became unsustainable. Around that time, Heifer Ecuador contacted La Changa with an idea: to earn money delivering fresh food from farms to doorsteps in the south of Quito via bicycle.

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Karen Salcedo, a member of La Changa, distributes fresh produce to customers in the south of Quito every Thursday via bicycle.



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In Quito, Susana Guasque (left) and others put together baskets of food that will be delivered to customers.

RIGHT

Heifer Ecuador provides personal protective equipment and bicycle trailers to groups in Quito so they can deliver fresh food safely and efficiently. After a national lockdown took place to curb the spread of COVID-19, Quito's mayor contacted Heifer Ecuador. With public transportation systems at a standstill and families staying at home, access to food became a challenge, especially for those with few resources.

"He said, we know you work with producers, we need your help to support vulnerable populations. And we need to keep people at home," said Rosa Rodriguez, director of Heifer Ecuador. Rodriguez's team and the groups of farmers they work with quickly put their heads together to come up with a system that is affordable for nearly every family and safe for everyone.

The process, which is a part of the *Future of Food* program, starts in the rural communities outside of Quito every Wednesday, when farmers harvest fresh produce from their farms. Early Thursday morning, the products are delivered to one of eight collection centers, where they are checked for quality and packed for shipping to families in the capital. The food is transported into the city in vehicles that are regularly cleaned and sprayed to avoid contamination. To complete the delivery process, Heifer

66 The bicycle was and is our main means of transport. It allows us to save money, exercise and be respectful with the environment.

Ecuador recruited energetic young people like Salcedo and other members of La Changa to manage the process.

"The bicycle was and is our main means of transport," Salcedo said. "It allows us to save money, exercise and be respectful with the environment." Once La Changa decided to be part of the delivery, Heifer Ecuador supported the group with seed capital, training, bicycle trailers and personal protective equipment.

"This economic activity has allowed us to sustain ourselves collectively and individually, as the pandemic caused many people to lose their jobs," Salcedo said. Income from deliveries is pooled, with 80% distributed equally among those who worked and 20% kept in a group fund.

That fund, as well as the initial support Heifer Ecuador provided, is allowing the group to start its own bicycle messenger service called Chasqui Pedal. "We don't have many orders yet, but we're still in the promotional stage," Salcedo said.

Every Thursday, though, is reserved for Heifer's food deliveries. Starting at 7 a.m., Salcedo delivers baskets comprised of 20 different products, from fruits and vegetables to cereals to honey. At \$17 each, the baskets are set at an intentionally low price point to reach more consumers, especially those surviving on meager incomes. In Ecuador, the delivery service is the only





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Food from rural producers in Cotopaxi is collected and prepared for transportation to Quito.

66 When you put in that effort, you also understand the importance of eating in a diverse and healthy way. one of its kind — naturally produced food, direct from the producer. So far, Salcedo has delivered about 80 baskets herself, but she has not been able to keep track of the number of kilometers she has covered.

"In Quito, there are many steep streets where you put your physique to the test," Salcedo said. "When you put in that effort, you also understand the importance of eating in a diverse and healthy way. Everything is linked to each other: eating healthy, exercising and working in community." She added that working with Heifer Ecuador is gratifying because it aligns with one of La Changa's basic principles — the right to eat healthy and valuing the work of farmers who harvest those foods.

To help promote and sell products, the group is responsible for a Facebook page. "Thanks to Heifer's support, we learned to manage that page and generate content, and we continue to learn," Salcedo said. Members of the group also learned about best business practices, account management and price adjustments. "We want the distribution of agroecological baskets to increase in order to generate more sources of work for the residents in our sector," Salcedo said.

That is Heifer Ecuador's plan, as well. So far, more than 10,000 baskets have been sold in the cities of Quito, Cuenca, Santa Elena and Machala, and Heifer Ecuador supports a similar endeavor on Galapagos' island of San Cristobal. Overall, the deliveries generate almost \$70,000 a month. As long as customer support stays strong, the service will continue to grow.

In the south part of Quito, Salcedo says customer support has been great. "Some of our clients are people who made donations when the pandemic started, so they already know us and always support us," she said. "When we started with the deliveries in the neighboring sectors, the response was also good. Many people are surprised and congratulate us when they see us arriving by bicycle, because in Quito there are streets that not even cars go up, but we do."



The Women of Bihani Dairy Give Back to Community, Adapt to Pandemic Changes

By **Jason Woods** and **Regeena Regmi** Photos by **Joe Tobiason**

FOR MANY YEARS, TULSI THAPA FELT LIKE SHE WAS ALONE. Like

most women in Kopuwa, Nepal, her husband did not allow her to leave home often, and she was dependent on him for income.

But she was far from alone — she found five other women in her community who felt similarly and wanted to do something about it. After starting to work with Heifer Nepal, Thapa and her neighbors formed a group dedicated to sharing labor and saving money to invest in themselves and the community. Then they helped other women do the same.

"We realized that we couldn't work singlehandedly, that we had to work together," Thapa said. "We got to know 66 We realized that we couldn't work singlehandedly, that we had to work together. ??

our sisters. It unites us." Soon after, with 64 savings groups formed, the women unified further by starting a cooperative, with Thapa serving as chairperson.

To put back savings, the women needed a steady source of income. "We should become entrepreneurs, we realized," Thapa said. The cooperative



воттом

The leadership team for Bihani Dairy stands outside their facility several months before the COVID-19 pandemic reached Nepal.



TOP LEFT

Bihani member Mina Kandel demonstrates the rickshaw used to sell ice cream in the community.

TOP RIGHT

Mina Ale distributes ice cream outside the Bihani facility late last year.

BOTTOM RIGHT

Since the beginning of the COVID-19 pandemic, the women of Bihani Dairy have been taking the necessarily precautions to keep their business running safely. assessed the needs of their area and noted that while many farmers owned dairy cows and buffalo, there was nowhere to store the milk. That meant much of the milk went to waste, and farmers generally sold their milk to traders, who paid much less than market value. So, with the support of Heifer Nepal, the cooperative worked with the municipality to convert a vegetable collection center into Bihani Dairy.

The dairy started out collecting just 150 liters of milk a day, and the women traveled to each farm to convince farmers to sell their milk to Bihani. But after only four years, Bihani's production increased to 1,850 liters, and now the farmers come to them.

"Many people didn't trust us since it was an exclusively women-led business," said Mina Ale, cooperative manager. "But we faced this challenge. Now people respect us." Competition is an issue now, she said. After seeing the success of Bihani, three other groups have opened dairies.

One reason for the cooperative's success is their adaptability. When the

dairy first began operation, it processed and sold paneer, yogurt and ghee in addition to milk. At the suggestion of a Heifer technician, Bihani added *kulfi*, or ice cream, to its list of products. The climate of Nepal's flatlands, where summers can get as hot as 108 degrees Fahrenheit, created a loyal customer base for the product, which was previously scarce in the area. Now Bihani kulfis are sold at local markets, in a nearby school and via rickshaw.

One reason for the cooperative's success is their adaptability.

Adaptability became even more crucial in March 2020, when the COVID-19 pandemic led to a nationwide lockdown. Nepal's Lumbini Province, where Bihani is located, was one of the regions affected the most. The cooperative quickly adopted social distancing measures so they did not miss a single day of milk collection, although they had to reduce milk intake to 1,200 liters daily. They also encouraged farmers to make curd and clarified butter to reduce any excess milk and worked with local authorities to ensure their farmers could procure feed and forage for their livestock during the lockdown.

As a social enterprise, Bihani Dairy invests most of the money it earns back into the community, with the rest reserved for further improvements for the business. Before the pandemic, the group put together a fund to financially support families who lost a loved one and supported new mothers by creating a savings account for their newborn children.

Recently, the group used some of their funds to create both low-interest loans for struggling farmers and a contribution of 10,000 rupees, or \$84, to the municipality's COVID response fund. Bihani also connected with other like-minded institutions in the area to form the COVID Control Group, which raised funds for relief and helped establish a 20-bed quarantine facility.

"We are exploring creating a highvolume storing system so we don't have to suffer like we did this time due to COVID-19," Thapa said. "We are also in the process of diversifying the milk into various products in a larger volume so that milk does not have to go to waste. We are hopeful that the future holds better prospects for us."

Part of that future includes expanding the scope of Bihani Dairy. As of now, the majority of milk collected is sold to a larger regional dairy. The women of Bihani are preparing their facility to take on more of a processing role, and they are also creating a brand for Bihani Dairy to then market products in a wider range. In Nepali, "bihani" means "morning," and that imagery is included in the logo.

"Since it was just starting, we named the dairy Bihani," Thapa said. "It's also a sign of good things beginning."







Cypress Valley Upholds High Ethical Standards Despite Pandemic in the U.S.



By Liz Ellis Photos by Philip Davis

ANDY SHAW, OWNER AND CO-FOUNDER OF CYPRESS VALLEY MEAT

COMPANY in Clinton, Arkansas, is shining a light on how to process meat safely and humanely, even in the face of a pandemic. As the sole meat processor for Grass Roots Farmers' Cooperative, which was formed in partnership with Heifer USA, Cypress Valley plays a vital role in the food system, linking smallscale farmers and consumers.

But processing and packaging meat is a technical, complicated task, and it's not always done properly. The U.S. meat processing industry has come under intense scrutiny during the coronavirus pandemic. Cramped working conditions and crowded floors have made it more difficult for many of the country's meat processors to keep their employees COVID-free. In April and May of 2020 alone, 239 large-scale processing facilities reported a total of 16,233 cases of COVID-19 among workers, with 86 COVID-related deaths. By September 2020, 56 plants around the country were still closed due to COVID-19 outbreaks, further straining supply chains.

CYPRESS VALLEY MEAT COMPANY

> While large-scale meat plants struggle to control outbreaks and continue to feed the country, that has not been the case for Cypress Valley, which continues to operate safely despite the pandemic. The secret to this public health achievement? Turns out, it starts with treating your workers well.

> Shaw believes that when employees are prioritized and treated like family, they take pride in every aspect of their work, including health and safety protocols, which are essential in the meat processing business. And employees

even go out of their way to improve upon them — for example, if a customer forgets a mask during a Cypress Valley pick-up order, they are provided with masks, gloves and other protective gear to use and take home. This is because an employee noticed customers weren't always prepared, so he texted Shaw to suggest the improvement long after he had clocked out from his shift.

Cody Harper, assistant plant manager at Natural State Processing, which is owned and operated by Cypress Valley Meat, credits the business' success to Shaw's leadership. "It comes from the top," Harper said. "The ethics and attitude of the leadership ... and Andy's eye for talent have built a team of superstars who love their jobs." Kerry Harrington, processing coordinator at Natural State, added that a company's culture can make all the difference. "Plucking tail feathers for the right person is what showed me I didn't want to become a surgeon," Harrington said.

It isn't just dedication to providing a healthy, safe and happy environment for the frontline plant workers who package our food that makes Cypress Valley unique. The company respects all beings who enter its doors, whether it's the animals, farmers, plant workers or customers, and that's something that has held strong throughout the COVID-19 crisis.





When employees are prioritized and treated like family, they take pride in every aspect of their work, including health and safety protocols, which are essential in the meat processing business.

In fact, Shaw thinks more people will see the value of smaller businesses like Cypress Valley on the heels of the pandemic. "Coming out of this, we will see a more decentralized food system," said Shaw.

A decentralized food system is one that relies on small, more localized businesses to grow, package and ship food. While large-scale producers and processors are easily grounded by disaster, a network of smaller businesses can be more resilient. For example, if one is forced to suspend operations for a time, other local processors could step in to fill the gaps and keep the supply chain moving. Lifting up and embracing more direct, regionalized supply chains could help to strengthen the entire U.S. food system, and under Shaw's direction, Cypress Valley is building a model for the rest of the country to emulate. ■

TOP LEFT

The Cypress Valley Meat Company processing facility in Clinton, Arkansas.

LEFT

Andy Shaw, CEO of Cypress Valley Meat Company.

TOP RIGHT

Employees at Cypress Valley Meat Company process and package chicken for Grass Roots Farmer's Co-Op.

BOTTOM RIGHT

Cody Harper, assistant plant manager at Natural State, which is owned and operated by Cypress Valley, poses for a photo on the job.



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RIGHT Although the new house is not yet complete, Gharti and Pun already feel more comfortable than they did in their old house.

Rebuilding in the Shadow of Conflict



BY **JASON WOODS**, *WORLD ARK* MANAGING EDITOR PHOTOS BY **JOE TOBIASON**

Conscripted by Maoist rebels at a young age, Ganga Gharti and Rudra Pun spent years tangled up in the Nepalese Civil War against their will. But when the opportunity finally arose, the two ran away from that life, together. What came next presented a new challenge, one that they met head on with the help of Heifer Nepal.

As a reprieve from an arduous day of work in the stifling heat of southern Nepal, Ganga Gharti and her husband, Rudra Pun, sit in the corridor of their nearly finished home. "It always has a breeze like this," Pun said. "Even if it's peak summer, even if it gets really hot, we don't use a fan."

The new house is a significant upgrade from the old, a smaller thatchedroof house, which termites eventually infested. Now, Gharti and Pun live in a two-story, wood-and-stone house with four bedrooms and a sturdy roof. But enjoyment of the new home doesn't last long this day, not with two children to raise and a thriving goat business to run.

In 2012, Gharti received a couple of goats from Heifer Nepal. After taking care of them for six months, she



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Pun and Gharti, in their backyard garden behind the house.

RIGHT

Pun walks down the path near his home to tend to the family's goats. thought, "We had to look after the goats whether we reared one goat or two goats or more." So why not turn it into a business?

Now, Gharti and Pun have about 55 goats, and they spend the better part of their days raising and caring for them. It's hard work, but it's a far cry from the difficulties they both faced early in life. From 1996 to 2006, a civil war swallowed rural Nepal, and families were caught between state forces and Maoist rebels. During the 10-year period, 18,000 people died in the conflict, and, according to a 2006 article in *The Guardian*, Nepal also led the world in number of daily abductions. It was during the middle of the civil war that Maoists recruited both Gharti and Pun. "It's quite fresh," Pun said, "and I would never ever want those days to return again."

CHILDREN OF WAR

In the latter part of the 1990s, an offshoot of the Communist Party of Nepal launched what they called a "people's war" to overthrow the constitutional monarchy and establish





control of the country. Inspired by Chinese Communist revolutionary Mao Zedong, the insurgents fought a guerilla war against police and the army in the Nepalese countryside. Each side routinely suspected the people living and farming in those areas were siding with the other.

"I got severely beaten by police and insurgents both,"



6 [The memory] is quite fresh, and I would never ever want those days to return again."

- RUDRA PUN

Pun said. "I am somebody who was almost killed. The police thought I was dead." Eventually, Pun felt he had to choose a side to survive.

"I was trapped between the Nepalese army and the Maoists," he said. Forced to make a decision, Pun acquiesced to Maoist recruitment. "It's better to get mad than die," he said.

One of the strategies the Maoists employed was recruiting children. According to human rights organizations, the group recruited around 4,500 children, sometimes by force. Other times, rebels recruited children for participation in "cultural conservation activities" like dancing or singing, or in the name of education. But in some instances, the roles of the children would quickly shift to the battlefield.

The Maoists forced Gharti to join them when she was just 12 years old. She wrote propaganda music for recruitment purposes. "We used to make songs," she said, "which would suit that particular moment. We also had to learn the songs, and we had to teach people."

Pun oriented new recruits. "It was not strenuous work," he said. "But at times we had to carry arms, at times we had to carry bags."

The insurgents moved often, and when they did, it was by cover of darkness. Both Pun and Gharti said traveling throughout the night was the most challenging part of their routine. "At the time of confrontation, we usually had to run away from places and protect ourselves," Gharti said. "We had to look for places where we could be safe and protected."

Initially, Gharti bought in to the message presented to her and her peers. But over time, that faded. "They said ... people like us should contribute to the country, we



6 I feel like [our children's lives] should be different. I want them to have the education that fits the generation that we're in right now."

- GANGA GHARTI

should sacrifice to the country. Since I lacked awareness at such a young age, I went. So, for a year or two, I just went along with the flow. But I realized there [were] so many confrontations, and I didn't get to meet my relatives or family members ... and I could



see friends of my age going to school and living a normal life.

"I tried so many times to go back home and study," Gharti said. "But the organization did not allow us to do so."

Pun added, "[Our families] looked for us. But our families considered us dead. Many people disappeared, and they thought we [had too]."

During their time with the Maoists, Pun and Gharti met and felt a bond. They agreed on their desire to leave the rebels, but it didn't feel like that was a viable option.

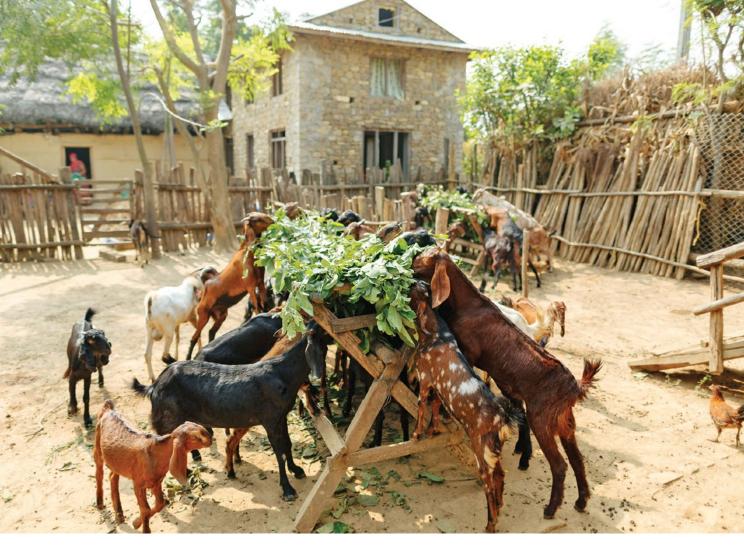
"If we had quit the organization, then there would be a threat to our parents," Pun said. "They would have been abducted; they would have been killed. So, we had to stay for them as well."

But as both sides of the conflict neared a comprehensive peace agreement, and as international human rights organizations began holding more sway in the country, it seemed the Maoists lost some of the power they held over Gharti and Pun.

The two took the opportunity to escape from the Maoists and start fresh. "You can call it marriage or really any sort of agreement," Gharti said, "but we just left, together."

A NEW LIFE

For six months, Pun and Gharti moved around while working in a paper factory and avoiding



contact with anyone they knew. After that time, with the war nearly at an end, they finally reunited with their families.

The two decided to restart their lives in the rural town of Rihar, a place where they could find land to buy, and where Pun knew a distant relative.

"On the very first day that we came here, we faced so much hardship," Pun said. "We didn't have income. We had to sustain ourselves by cooking [a kind of wild radish], which is mostly eaten by goats."

Pun tried his hand at rearing pigs, but it wasn't profitable. Then the couple heard about Heifer Nepal.

"We had some discussion between ourselves whether to

be in the group or not," Pun said. "Because there were some other organizations that didn't have such a good reputation in this area, so we were generalizing Heifer." But Gharti and Pun decided to move forward, and their fortunes changed.

Seven years after receiving two goats from Heifer, Gharti and Pun now spend portions of their days escorting 55 goats through the jungle, making sure they have enough to graze on and keeping them as safe as they can from leopards and other dangers. The couple spends another portion of their time helping their 12-year-old son and 7-year-old daughter with their studies. "I feel like their life should be different," Gharti said. "I want them to have the education that fits the generation that we're in right now. In [this] era, if you're not educated, it wouldn't be possible to do anything."

The profits from the sale of goats are enough to cover regular payments of the loan they took out from a local cooperative to build their new home, which has enough space for two growing children and hosting guests. And on occasion, Gharti and Pun even get a chance to sit down and enjoy the summer breeze.

"We decided that we wanted to stay here forever," Pun said. "We won't be going elsewhere from here."

TOP LEFT

Gharti picks marigolds in her backyard.

BOTTOM LEFT

Charti and Pun can often be found taking their 55 goats behind the house to graze.

ТОР

Feeding time for the family's herd of goats.

Things to Know About Nepal



Eight of the world's 14 highest peaks — including the very tallest, Mt. Everest — are located in Nepal. Although about 75% of the country is mountainous, you can also find temperate forests and flatland plains ecosystems.



Siddhartha

Gautama, more famously known as Buddha, was born in Lumbini, Nepal, between 623 and 480 B.C.



Notable fauna in Nepal include Bengal tigers, one-horned rhinos, clouded leopards, red pandas, wild yaks, several species of monkeys and Himalayan wolves.

Men in Nepal often wear fabric hats called Dhaka *topis*. The hats gained popularity in the 1950s, when King Mahendra insisted men wear them in photos for official documents like passports.



Since cows are holy for Hindus, it is a crime to kill a cow in Nepal. Eating beef is not illegal, however.







More than 80% of Nepalese identify with Hinduism, making it the country with the highest percentage of Hindus.



The largest temple in Nepal is Kathmandu's Pashupatinath, which is dedicated to Hindu god Shiva and likely dates back to 400 B.C. Bodies cremated in open-air ceremonies here are sent along the holy Bagmati River that runs through the compound.

Nepalese people bestow blessings to guests and loved ones by putting *tikas* on their foreheads. A mixture of vermillion powder, yogurt and rice, a tika gives health and good fortune to the wearer.





Nepali is the official language of Nepal. The traditional greeting is namaste, a word familiar to yoga practitioners everywhere.





A *linge ping* is a giant swing constructed from bamboo and rope. Although less common than they used to be, the swings can still be found in rural areas.

mixed media FOOD FOR THOUGHT

Sacred Cow Documentary Locks Horns with Beef Detractors



DIANA RODGERS WANTS YOU

TO KNOW that eating red meat is good for you and, when raised well, good for the environment.

"Cattle have been unfairly scapegoated for our failing health and warming climate," Rodgers said. "Eliminating livestock from our food system could do more harm than good."

Rodgers is the producer and director of *Sacred Cow*, a documentary available on Amazon, iTunes, Vudu and other platforms that is based on her book by the same name. She is also a registered dietician who says animal source foods are essential for optimal health, and beef is one of the most nutritious and widely accessible meats available.

"The global dialogue about the future of our food and how to nourish people while being eco-friendly focuses on eating vegan, vegetarian or certainly less meat," she said. "I challenged that from a nutritional and environmental perspective."

In the Sacred Cow book, Rodgers and co-author Robb Wolf use scientific data to demonstrate how animal source foods contribute to healthy diets and a healthy planet. The book provides the foundation for the film, which covers topics like the rise of industrialized agriculture and processed foods, the food pyramid, and school lunch menus to show how beef has been unfairly stigmatized. Butchers, professors, former vegans and particularly farmers take center stage to make a case for raising cattle.

"Cattle have been unfairly scapegoated for our failing health and warming climate." — Diana Rodgers

"The film is really [teaching] lessons about regenerative agriculture through producers," said Rodgers. As explained in the film, regenerative agriculture is "a practice that uses a diverse mix of animals and plants to mimic, rather than dominate, nature" while repairing the soil and increasing productivity on farms around the world.

To illustrate, the film highlights cattle ranchers using such methods to regenerate more than a million acres of Chihuahuan Desert back to grasslands without using seeds. When cows are frequently moved to graze in a way that mirrors wild herds of ruminants, their manure, saliva, urine and hoof impacts help promote plant regrowth, and overgrazing is prevented.

When properly managed, Rodgers says, cattle help farmland mitigate climate change by storing carbon, which leads to improved water cycles. Of course, the majority of the world's beef is not produced using regenerative agriculture, and one criticism of the cattle industry is that it contributes to global warming. While Rodgers acknowledges the problems factory farming presents in terms of animal welfare and poor environmental practices, she says the claim that eating less beef would help slow climate change is overblown.

"We don't have more ruminant

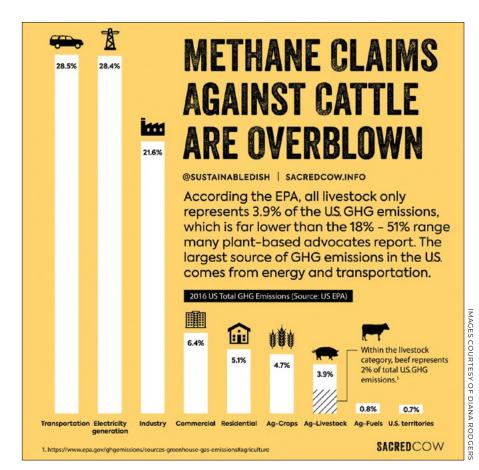


animals today in North America than we did in the 1600s before we nearly eliminated the bison," she said. "They're different ruminants, but we don't have more methaneproducing bodies out there."

Sacred Cow also pushes back on the notion that the cattle industry produces more greenhouse gases than any other industry. Rodgers points to Environmental Protection Agency data, which show that livestock in the U.S. account for 3.9% of methane emissions. with beef responsible for about half that. Transportation and electricity generation combine for almost 57%. Globally, Rodgers says, livestock account for 5% of direct greenhouse gas emissions compared to 14% for the transportation industry.

Additionally, carbon cycles for livestock are different from fossil fuels. "It's part of a natural cycle," Rodgers said. "After 10 years, methane turns into water and carbon dioxide, which then goes into the water cycle and gets reabsorbed by plants. Some of it can get sequestered in the soil. It's like a balanced equation."

From a nutritional standpoint, Rodgers argues that animalsourced foods are essential because they contain a higher density of nutrients, and humans can better break down and utilize those nutrients when compared to plant-based foods. Some vitamins and minerals — like B12 and iron, which account for two of the largest nutrient deficiencies worldwide — are much easier to get from animals. This is particularly important for growing children and low-income families.



"If we want to feed people who are hungry or undernourished, the most nutrient-dense foods are animal source foods," Rodgers said. "In developing countries, they can't just go get their B12 supplement at a CVS Pharmacy, right? Most of the world can't do that. They require animals for their livelihood and nutrition."

Sacred Cow also tackles the notion that red meat consumption is the driver of serious health problems in the United States like obesity, diabetes, cancer and heart disease.

"When we look nutritionally at a country where 70% of people are either overweight or obese, our beef intake is actually pretty low," Rodgers said. "It's gone down since 1970. The average American only eats about two ounces of beef per person per day."

With both iterations of *Sacred Cow*, Rodgers wants to show that meat isn't the problem and, in fact, is part of the solution. "I'm hoping to affect some policy and make some noise about regenerative agriculture on a bigger scale with the film," she said. "Now is the perfect time, with COVID," Rodgers said. "We really see the disruption in industrial meat supply chains and the value people are placing on more regional food systems and better food in general."



"I would encourage my fellow youth all around the globe to harness farming. My involvement [with Heifer Uganda] has helped prepare me to be somebody that I was not earlier. It has built confidence in me." — Muhammed Mpiima

Muhammed Mpiima has always had a passion for agriculture. "To me, agriculture is fun, so my farm is also my leisure point," he said. But Mpiima didn't always have the skills to transform his passion into a sustainable source of income.

That changed in 2018 when he joined Heifer Uganda's *East Africa Youth Inclusion Project (EAYIP)*. Focused on helping young people in Uganda gain both the technical and soft skills needed to succeed in farming and other ventures, *EAYIP* is an answer to the unemployment crisis facing Uganda's young adults. For Mpiima, that has meant education in financial management and business planning as well as access to a low-interest loan. With these funds he expanded his farm and earnings, increasing his income from 50,000 Ugandan shillings (\$13.50) a month to more than 300,000 (\$81).

BUILD A RESILIENT FUTURE

If we learned anything over the past year, it's that you never know what the future holds. However, having a plan in place makes you resilient. Now is a great time to establish your plan and help create a better future. And when you set up a donation to Heifer as part of your estate, you create long-term impact that will support and strengthen communities for generations.



For more information, contact Debbie McCullough at 501.907.4922 or debbie.mccullough@heiferfoundation.org. You can also complete and return the attached card.





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