THE HOWARD G. BUFFETT FOUNDATION

2019–2020 ANNUAL REPORT

TABLE OF CONTENTS

STATEMENT OF PURPOSE

Established in 1999, the Howard G. Buffett Foundation's primary mission is to catalyze transformational change, particularly for the world's most impoverished and marginalized populations. We see the Foundation's resources as rare risk capital that can be deployed to improve conditions and create change in the most difficult circumstances and geographies. We invest our funding in four main areas:

1. Food Security
2. Conflict Mitigation
3. Combatting Human Trafficking
4. Public Safety

Our support for global food security is directed toward agricultural resource development and management for smallholder farmers in the developing world. We support a range of investments, including research, conservation-based production practices, water resource management and education to promote the ideas that will have the broadest impact on the most vulnerable and under-resourced farmers. In the United States, we work to raise awareness about the scale and scope of hunger in our local communities and the critical role American farmers play in meeting the world's growing demands for food while sustaining our natural resources through better production practices.

Conflict and citizen insecurity are key barriers to achieving global food security and economic prosperity. We seek out investments to mitigate conflict and improve citizen security in two ways: through opportunities to bring an end to violence and active conflict or to improve the conditions that fuel violence and conflict; and through opportunities to support communities that have been affected by violence or conflict. We consider the pervasive gang-related violence affecting communities in Central America to be a form of conflict and are working on investments to address and mitigate these circumstances.

In 2020, we committed to build on our prior efforts to combat human trafficking by adding it as a funding priority. We will focus our grantmaking in targeted communities in the United States to unite and amplify the efforts of law enforcement, victim service providers and community members to disrupt human traffickers, dismantle their networks and provide justice to victims of human trafficking.

Public safety is the primary focus of our community-based grantmaking in locations where we have operations and employees. We partner with local sheriffs' offices to identify and address key community public safety concerns, and we support volunteer fire departments in rural communities where resources are scarce.

The Foundation provides other support to the communities where we have operations and employees, and we continue to make smaller investments in areas where we have historical knowledge and relationships, including initiatives with cheetah and mountain gorilla conservation.

The Foundation does not accept unsolicited proposals, and we typically do not provide general operating support. December 31, 2045, is the final dissolution of the Foundation's assets.

TRUSTEES

LETTER FROM THE CHAIRMAN

In early 2020, the coronavirus pandemic changed almost everything we knew or assumed. We opted to pause our 2019 Annual Report production and combine it with our 2020 Annual Report as we worked to ensure the pandemic did not derail our field programs focused on long-term development. Here in the United States, the pandemic exposed the breadth of the economic divide between families of different means, and affected the education quality and access gaps among children from families with different income and education levels. Some families had robust internet at home, while others could not afford it at all. Some had access to or could afford to buy learning platforms like personal computers or tablets, others could not, forcing some children to fall further behind in their education. Public school systems across the country reported between 25 and 45 percent or more students were absent from remote learning entirely. Food banks saw record amounts of people who needed help, including people who had never previously visited a food bank. The pressure on single parent households increased as unemployment rose. Reports of domestic violence and child abuse in some areas decreased, even as police and victim experts shared data suggesting real numbers had intensified. Other violent crimes increased significantly across the country. The coronavirus pandemic laid bare and amplified economic and societal disparities with amazing speed and clarity.

Outside the United States, in the countries where we have historically worked, including South Sudan, Democratic Republic of Congo (DRC), Rwanda, El Salvador, Colombia, Mexico and others, where economic and societal disparities were orders of magnitude more dire before the pandemic, the impact is less from the virus and more from efforts to contain it. As former Prime Minister Tony Blair recently noted, "The biggest problem with Covid-19 in Africa is that Covid-19 isn't the biggest problem." The same is true for most of the countries outside of the United States where the Foundation is working. Populations that rely on the informal sector have seen their livelihoods disappear overnight under strict quarantine measures. Countries that had little to no social safety net before the crisis have struggled to meet their citizens' most basic needs using economic resources from multilateral aid that was insufficient before the crisis and will likely not increase as donor nations face declining resources at home. Political systems that were making progress on democracy and good governance have at times fallen back on authoritarian approaches in their response measures.

In some countries, the coronavirus gave cover for strongarm tactics to contain it. Strict quarantine measures were enforced even as aid to those most impacted was insufficient. This undermined people's confidence in their governments and increased their desperation amidst the economic fallout (El Salvador).

Countries that were increasing tourism revenue as a percentage of GDP or welcoming new investors looking to make long-term commitments in their emerging economies have seen those gains disappear. Yet there have also been moments that remind us that any commitment to development must anticipate and look beyond the short-term risks that are always present. We learned this early-on in our approach to philanthropy when we chose to invest in development in conflict and post-conflict countries. In those cases, we worked around bullets and RPGs; this pandemic reminds us that risk comes in many forms.

We worked hard to adjust and adapt our grantmaking to these new challenges, but there was no way to avoid the time or progress lost by countries implementing national stay-at-home orders. Implementing partners were unable to access the rural communities where our projects were under way, and our own Foundation team was not able to be on the ground to provide the management and oversight we require for the investments we make. We made the decision early on that we would stay focused on long-term development, and avoid most immediate humanitarian relief efforts, recognizing that the long-term needs would remain long after the world had moved on from this crisis. The pandemic and responses by each government varied, but the implications were the same: it shut down our work in Rwanda, El Salvador and Colombia for most of 2020. None of this affected our commitment to continue our investments in long-term development in food security, conflict mitigation and public safety in those counties; it did mean that we could not distribute grants as quickly as we wanted. This is reflected in our 2020 distributions.

In El Salvador, the criminal gangs that terrorize communities daily actually helped enforce the government's quarantine, likely to reduce the duration of the quarantines as the many small vendors they regularly extort had to shut down, leaving thousands with no income. People who violated the stay-at-home orders were jailed with no due process or put in poorly run government quarantine centers. Unfortunately, as pandemic restrictions were lifted, the impunity that criminals operate under quickly returned. And it is likely that it will return with more force and violence than before as criminals attempt to reestablish turf and control, as well as make up for lost income.

Putting the fallout from the pandemic aside, 2019 marked our twentieth year of investing in ideas to improve the world. Our Foundation has deployed over $1.5 billion in eighty-eight countries; 71 percent of our total giving has been outside of the United States. We have worked in the most difficult countries suffering the most extreme poverty. What I have learned will sound simple, but it is informed by watching refugees suffer, rebels kill for no reason and children die of malnutrition. So, the lessons are very vivid and real to me.

I've had many people ask me, "How do you solve poverty?" I've thought a lot about that question. And as I've spent more time in the countries where we do work, I learned that development is impossible without the rule of law. The absence of a coherent and adhered to system of just laws, competent enforcement institutions and a justice sector that ensures equitable accountability is what ultimately keeps many people poor. Investments in long-term, sustained development–to establish market economies or to start and grow businesses, basically the conditions for economic growth–are not possible without the rule of law.

TOP LEFT: A mother and her daughter wait for a food distribution in Ethiopia. Refugees suffer from insufficient shelter, lack of healthcare and limited educational opportunities, all of which contribute to long-term trauma. TOP RIGHT: In many conflict-ridden countries, there is a strong military presence, along with local thugs and regional rebel groups. Oftentimes, civilians are caught between the fighting and suffer significant human rights abuses (Uganda). BOTTOM: This young girl was dying from malnutrition and meningitis. She was in a remote area of Ghana with minimal health services.

Let me illustrate that point with examples I am familiar with. Farmers in rural El Salvador, who are on the edge of survival, are forced to pay a part of their crop to gangs pushing the farmers further into poverty. Families in Ethiopia barter away their own daughters for marriage in order to have access to a water well to keep the rest of their family alive. Children living in garbage dumps in Tegucigalpa, Honduras, sell their bodies to truck drivers for food. I remember talking to a woman in Sierra Leone who told me about fleeing from her home when members of the Revolutionary United Front (RUF) came to their village. Her family fled to the forest, and she explained how they ate leaves, tree bark and roots to stay alive. Then, she explained how she had to decide which child to feed, depending on who was most likely to survive. There are two things each story has in common: these people are desperately poor, and there is no system of laws in place that protects them from the terrible choices they have to make in order to survive.

LEFT: Children living in a garbage dump in Tegucigalpa, Honduras, take shelter under a make-shift cardboard structure. RIGHT: The conflict in Sierra Leone began in 1991 and lasted a decade; many villages were raided by the RUF, children were taken and trained as soldiers, women were raped and over 50,000 people were killed.

Poverty is measured by much more than a single statistic like who lives on $2 a day. It is also about what it means to live without a system of rules and protections. When I was sitting in a small village in South Sudan many years ago, I was talking to a group of elders. I asked them what they needed the most. I expected them to tell me they needed better access to water, fertilizer or improved seeds, but they told me they needed protection. The Lord's Resistance Army (LRA) would come and steal their crops, rape their wives and daughters and kidnap their children.

In some places where we work, peoples' greatest fear is not starvation or not having enough water to drink; it is the fear of being raped or killed while walking to the field to harvest their crop or going to the well to fetch water. Poor people, whatever numeric standard you use, live in a world without choices, full of uncertainty, insecurity and with no one to call for help. Corruption, violence and criminal predation–unchecked by any system of justice–whether it is perpetrated by governments, local criminal gangs, internal rebellions or military conflicts, is what keeps people in poverty and stifles development. Corruption siphons away government resources that could otherwise be invested in social safety nets or in local communities. It causes poor people to lose the precious few resources they earn when they must pay extortion fees simply to be in business. There is no protection when the local law enforcement is as feared and mistrusted as the gangs they are supposed to police. With impunity rates for criminal convictions exceeding 90 percent in certain countries, criminals can operate with little fear of accountability. In many places we work, there is a higher chance of getting hit by lightning than going to jail for committing a crime.

LEFT: The elders of a village about two hours outside of Juba, South Sudan, describe their struggles with safety and security. RIGHT: A family from Sierra Leone describes the day that this farmer (on left) was on his way to his field to harvest. He was stopped by the RUF and was asked if he wanted a "long sleeve or short sleeve," a phrase used by the RUF indicating they would cut off your arm or your hand. The intent was fear; the reason that was often given was to prevent people from voting.

The choices poor people face when working to survive and support their families are limited when combined with a system that denies them a voice and power. Helping someone who lives on $2 a day really means providing them with safety, so they have more choices and have an opportunity to improve their lives, to improve their economic situation. It means empowering the justice system, shutting down extortion and exploitation and ending impunity. **Human beings can only thrive when they feel a minimum level of personal security. Fear may not be responsible for poverty, but it helps keep people poor. It has many consequences.** Children cannot attend school; family members can be sold for profit; farmers and small business owners often cannot survive. To address the systemic problem of poverty, you cannot always start with the individuals who are living on $2 a day. Sometimes you have to first address the people and institutions around them that keeps them living at that level. That means the difficult work of building a justice system that protects the poor as much as it protects the rich. It means taking away the opportunity to profit from selling children. It requires the tools, the training and the culture to stop criminals from operating with impunity.

As long as our definition of success in addressing poverty somehow is measured by moving a person from $2 a day to $5 a day, we will continue to fail at long-term, lasting change. Half a century of funding anti-poverty programs has had limited success because it has focused on the absence of income, not on what keeps people poor. In fact, very little of the $147 billion spent every year on "aid" goes to protecting or building systems to protect the poor. Most places where we have worked regularly experience conflict. In Eastern Congo, internal fighting and random killing is almost always present. In some parts of El Salvador, gangs have more control than law enforcement. In Mexico, cartels are more powerful than the government. In Sudan, the government perpetuates fighting between tribes. These are the circumstances that exist with little or no rule of law. These are the circumstances that create and preserve the environments that force people to live on $2 a day. Our Foundation will always do its best to operate within our "circle of competence." That means that our funding will reflect the lessons we have learned from our successes and our failures and from our areas of experience.

The three areas we list as our primary focus are food security, conflict mitigation and public safety. In 2020, we added a fourth that I explain in further depth in my *Closing Thoughts*: combatting human trafficking. They are related issues.

Most of our food security grants involve improving agriculture for smallholder farmers in developing countries. However, the farmers we support are not able to feed their families if they have a bad harvest or if their crops are raided by rebels or their harvests are stolen by gangs. My 37 years of experience as a farmer has driven a lot of our activity in this area.

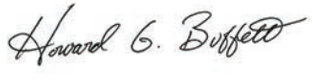
Conflict mitigation is an area we work in because people who lack basic security cannot build viable livelihoods. Conflict drives people from their homes and fields, prevents farmers from reaching markets, subjects women to gender-based violence and keeps children out of school.

Public safety encompasses the work we do to improve on our own well-established justice sector institutions in the United States, where they are insufficient or inequitable, especially for communities of color and in rural America. Being poor in the United States doesn't just mean being food insecure; it also often means being afraid to walk through your community at night because of gang activity and gun violence. It means law enforcement agencies that lack the processes, the resources and the training to support the public safety needs of the citizens they are sworn to protect. And it also means deteriorating relationships between communities of color and law enforcement when public safety needs are not met or are applied inequitably.

Human trafficking occurs when there are a sufficient number of vulnerable people to exploit and too many deficiencies in public safety resources to combat that exploitation.

In our 2018 annual report, we wrote a section in response to a report that we believe overstates the success of "aid." We said that the true state of the world does not lie in global averages calculated by economists using ever-shifting definitions. We argued that globally aggregated statistics miss some very key points. One of those critical points is the failure to protect poor populations and the violence that they are subjected to on a daily basis. Measuring success by numbers understates the suffering that people are subjected to and, importantly, it leads to the conclusion that little or no investment is needed in the security and safety of poor people.

An example of how our "aid" has failed is that in 1951, the United Nations High Commissioner for Refugees (UNHCR) recorded a total of 2.12 million persons of concern–defined as people who are forcibly displaced inside their home country, forced to flee their home country or who are defined as "stateless." In 2017, UNHCR estimates that number to be 71.44 million–a 3,270 percent increase over seven decades and a record high share of the world's population, increasing from .08 percent in 1951 to .95 percent today. So, while economists talk numbers, more people suffer. There is no way a single monetary measure can adequately reflect the amount of safety or violence that a person experiences day-to-day. When we then define success in terms of an arbitrary income level, we take focus away from a system that will keep millions of people permanently poor. We see our job as addressing these needs, but we also see our job as calling it as we see it.



(Captions read top to bottom, left to right) 1: A young man who fought in the Sierra Leone Civil War shows the scar where his commander cut his chest and rubbed in cocaine to keep him "pumped up," a common practice used on younger solders at the time; 2: In 2006, Pakistan was devastated by earthquakes and landslides. USAID provided significant relief to the victims; 3: From 2011 to 2017, the United States military provided advisory and training support to the Ugandan military within the Central African Republic in their hunt for Joseph Kony and the Lord's Resistance Army, militants responsible for countless kidnappings and massacres of civilians in the region; 4: During the conflict in Bosnia, civilian populations suffered significant losses, as well as numerous human rights violations. Children were especially affected by the conflict; 5: Ethnic conflicts in northern Ghana have taken a serious toll on local populations; 6: MS-13 gang members are detained in a local jail in El Salvador. They must be kept separate from other gangs; 7: A massive influx of international aid was mobilized after conflict erupted in 2009 in the Great Rift Valley, Kenya; 8: Since 1978, Afghanistan has been engaged in ongoing conflicts. The United States has had troops in Afghanistan since 2001, making it the longest war in U.S. history; 9: The four women living in this house were displaced when the RUF raided their village in Sierra Leone. When the rebels approached, villagers were forced to hide and live in the bush for months; 10: In the 1994 Rwandan genocide, it is estimated that 800,000 ethnic Tutsis were massacred by Hutus over the course of just three months; 11: A Sheriff's office in Northern California raids an illegal cartel marijuana grow site, resulting in the seizure of illegal weapons, hundreds of pounds of illegal marijuana, $178,000 in cash and the arrest of 12 Mexican nationals; 12: Howard Buffett meets with Ugandan forces from the UN-backed African Union Mission in Somalia (Amisom) who are cataloging the weapons, ammunition and communications equipment they captured the day before from the militant group Al-Shabaab; 13: Congolese Park Rangers raid illegal fishing villages being operated by local rebel groups in the Democratic Republic of Congo; 14: The World Food Programme sponsored an initiative to allow former poachers in Zambia to turn in their weapons in exchange for training in agriculture; 15: Conflict is so prevalent in South Sudan that a child wears a bullet casing as jewelry; 16: A child in Ethiopia waits at a food distribution center after drought destroyed local crops; 17: This young girl, who lives in an area of Mali referred to as the "Belt of Misery," has survived multiple rapes; 18: Families in rural areas experience higher rates of malnutrition and have limited to no access to health care or education (Romania).

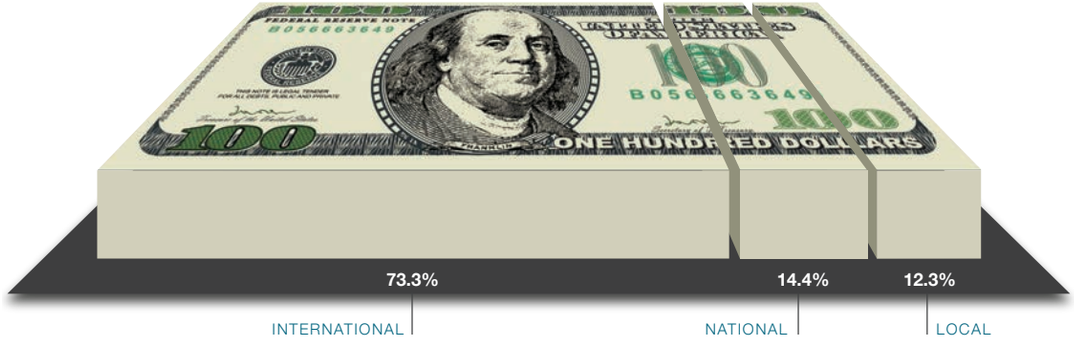

BARDAHL

FINANCIALS

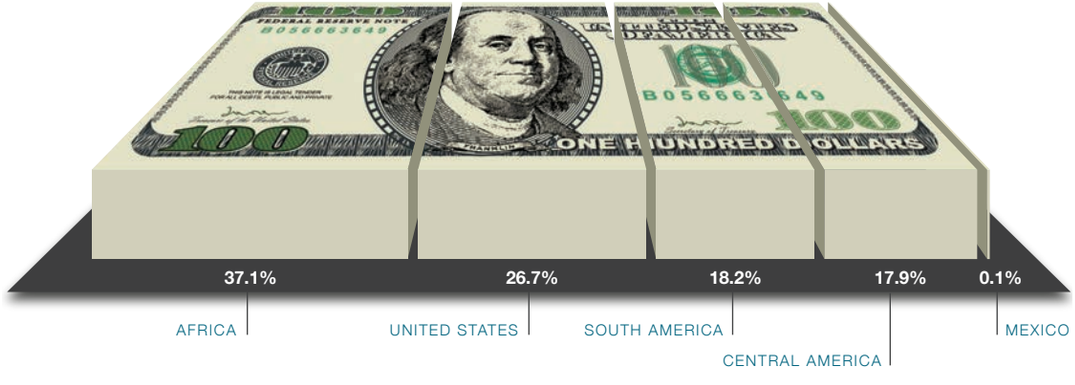
2020 CONTRIBUTIONS

CONTRIBUTIONS BY CATEGORY

CONTRIBUTIONS BY DESTINATION

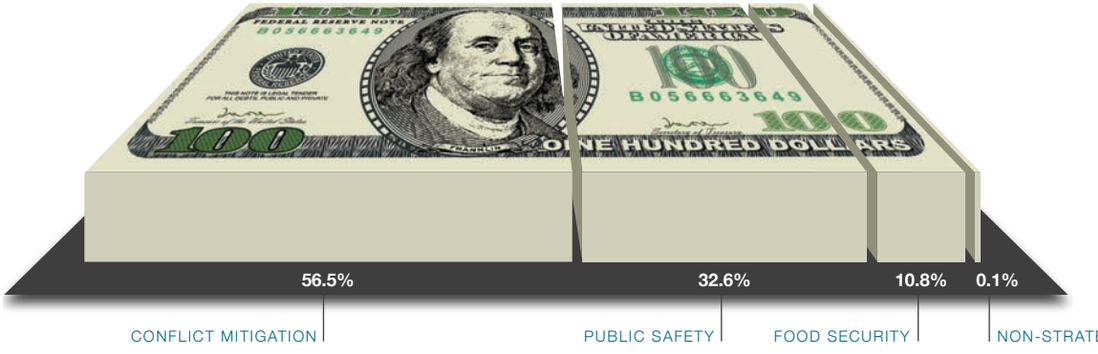


CONTRIBUTIONS BY GEOGRAPHY



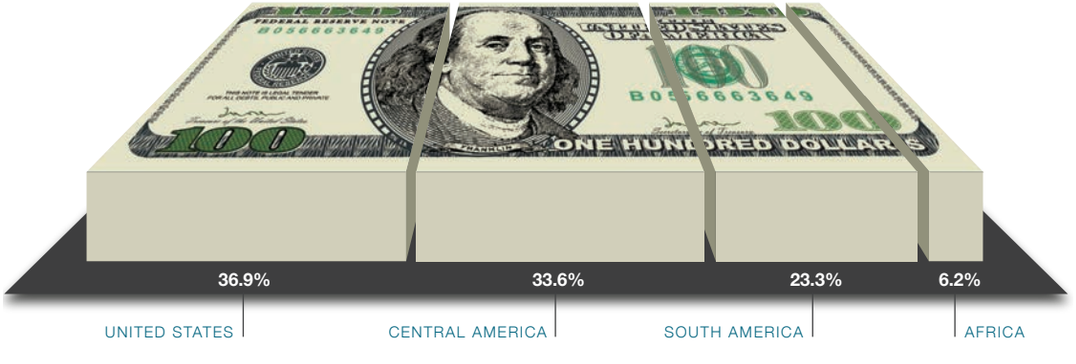
2019 CONTRIBUTIONS

CONTRIBUTIONS BY CATEGORY

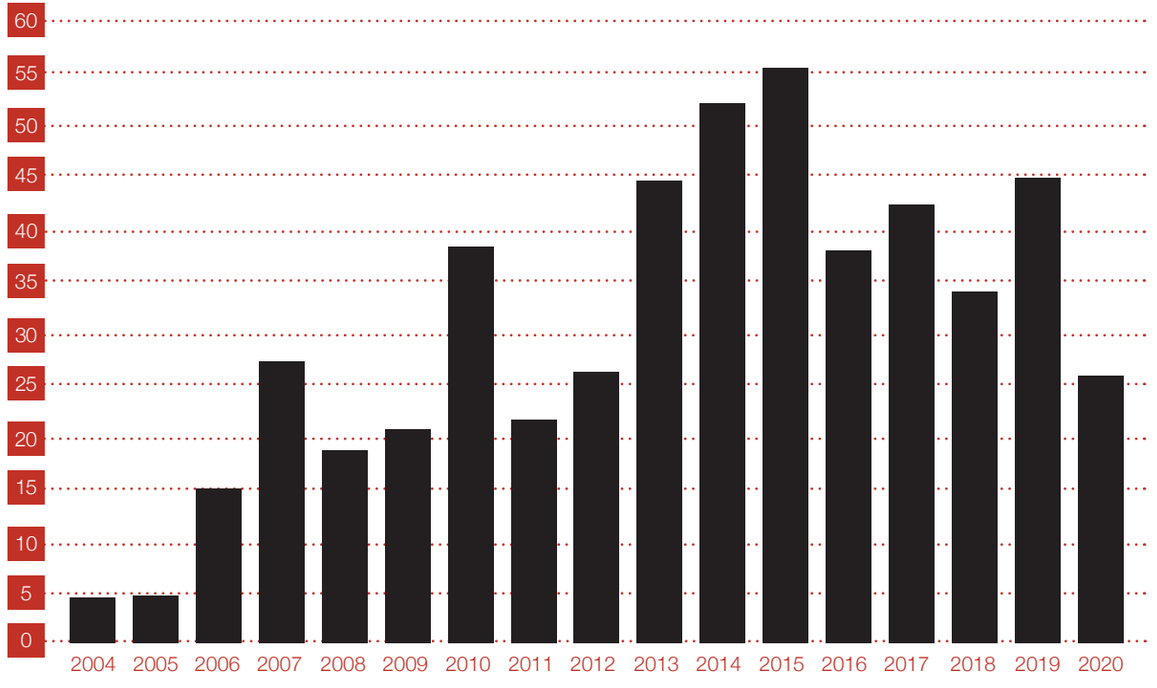


CONTRIBUTIONS BY DESTINATION

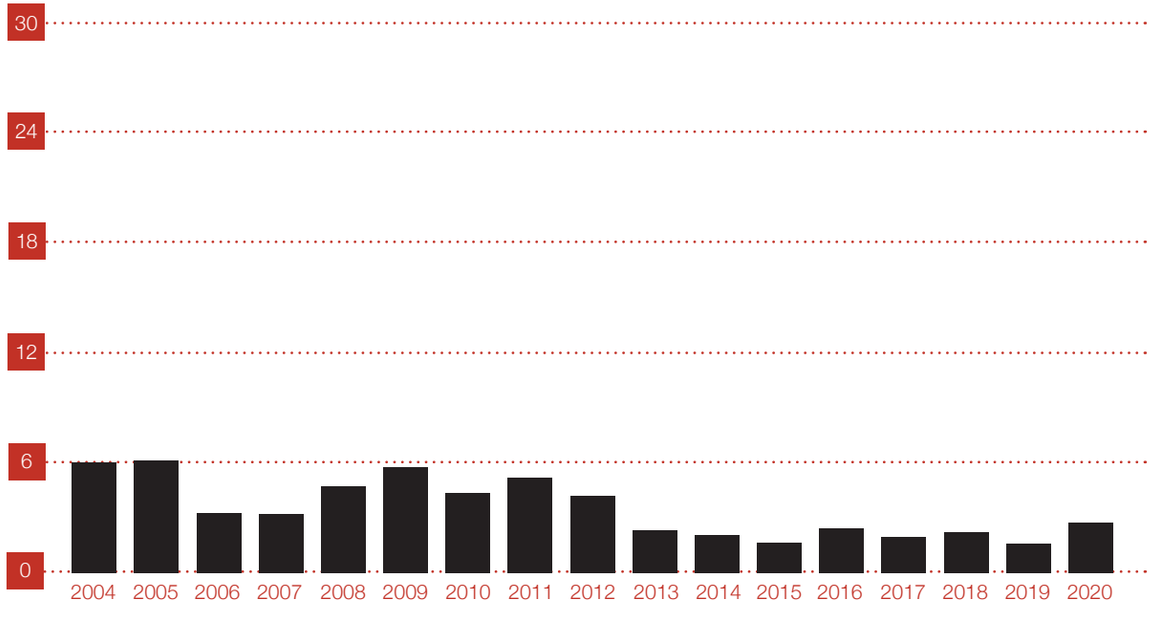
CONTRIBUTIONS BY GEOGRAPHY

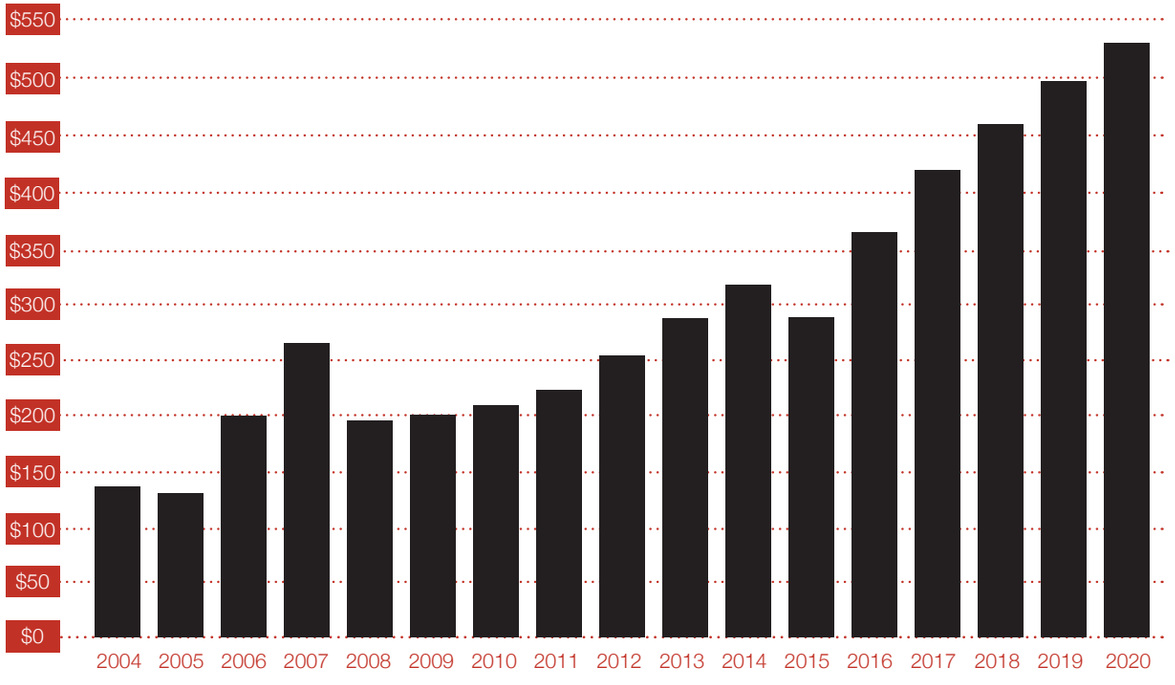


QUALIFYING DISTRIBUTIONS
(AS PERCENT OF ASSETS)

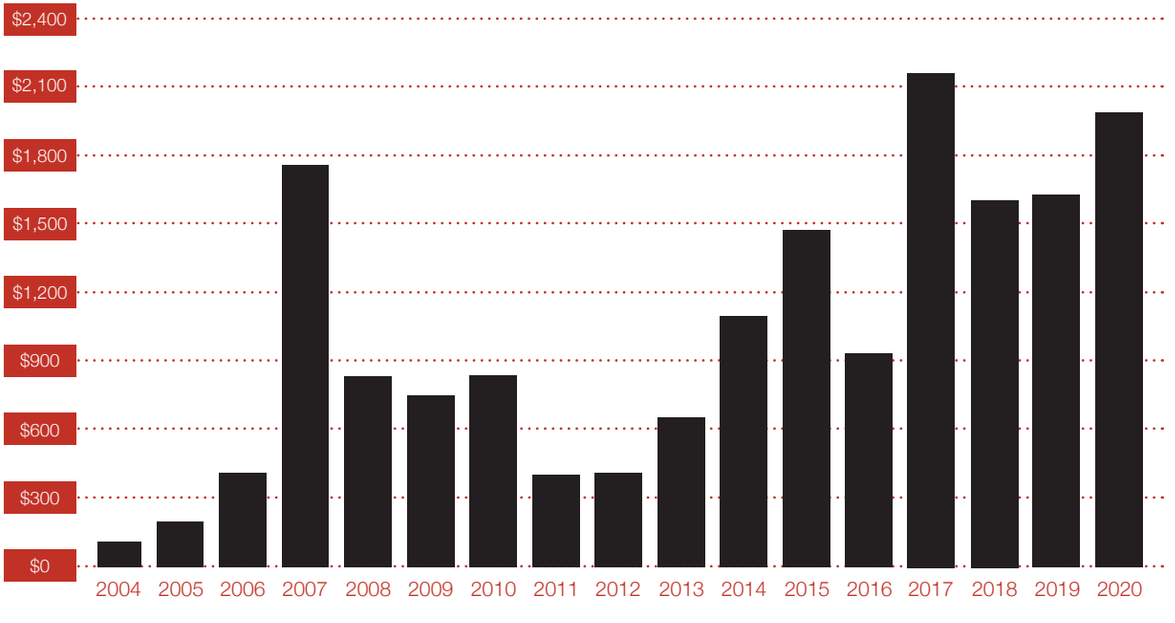


OPERATING EXPENDITURES
(AS PERCENT OF GRANTS)





TOTAL ASSETS
(IN MILLIONS)



AVERAGE GRANT SIZE
(IN THOUSANDS)

STATEMENT OF FINANCIAL POSITION[1]

AS OF DECEMBER 31, 2020

ASSETS		
	Cash and cash equivalents	$ 39,064,646
	Investments	486,205,676
	Income tax receivable	53,940
	Other assets	4,288
	Land, Buildings, Equipment, net of accumulated depreciation	3,272,385
	TOTAL ASSETS	$ 528,600,935
LIABILITIES & NET ASSETS		
Liabilities:		
		$ -
	TOTAL LIABILITIES	-
Net Assets:		
	Unrestricted	528,600,935
	TOTAL NET ASSETS	528,600,935
	TOTAL LIABILITIES AND NET ASSETS	$ 528,600,935

[1] Statements prepared on a cash basis/income tax basis

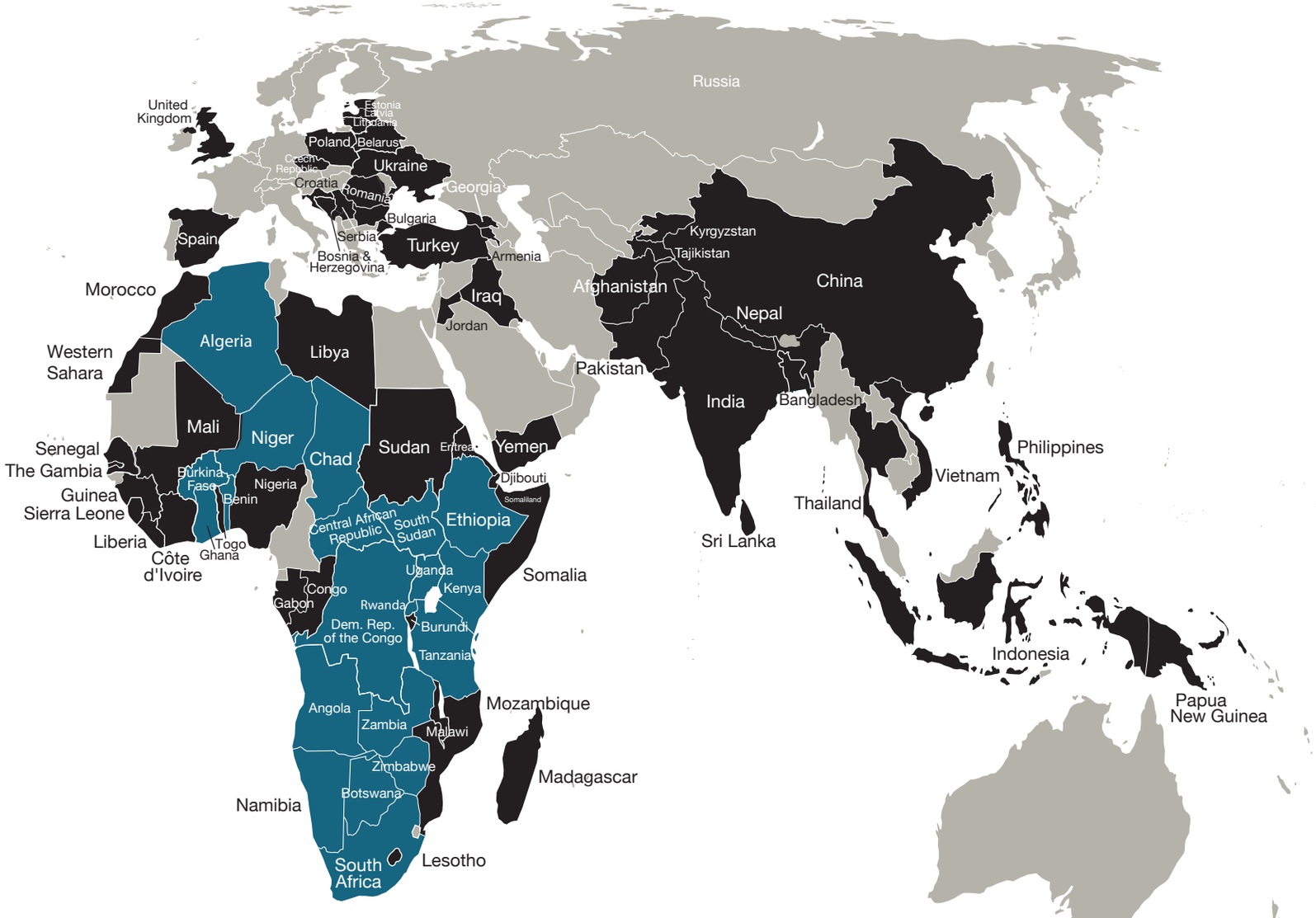
STATEMENT OF ACTIVITIES[1]

YEAR ENDED DECEMBER 31, 2020

REVENUE AND SUPPORT:		
Contributions and Grants:		
Operating	$	154,598,482
Total contributions and grants		154,598,482
Gain (Loss) on sale of investments		(828,477)
Interest and investment income		999,415
Unused grant returns		8,457,734
Other income		44,245
TOTAL REVENUE AND SUPPORT	$	163,271,399
EXPENSES:		
Program:		
Food Security	$	235,478
Conflict Mitigation		3,531,653
Community		27,999
Human Trafficking		61,854
Public Safety		603,127
Total Program		4,460,111
Contributions, Gifts, Grants Paid		128,335,810
General and administrative		4,320,251
TOTAL EXPENSES		137,116,172
CHANGE IN NET ASSETS		26,155,227
NET ASSETS AT BEGINNING OF YEAR		495,250,190
CHANGE IN UNREALIZED GAINS ON INVESTMENTS		7,195,518
NET ASSETS AT END OF YEAR	$	528,600,935

[1] Statements prepared on a cash basis/income tax basis


Canada
United States
Mexico
Cuba
Honduras
Guatemala
El Salvador
Nicaragua
Venezuela
Colombia
Ecuador
Peru
Paraguay
Chile



Countries receiving funds in 2019/2020 also may have received funds in prior years.

FOOD SECURITY

Supporting sustainable, economically viable agricultural development to improve food security remains the cornerstone of the work we do. In Rwanda, the Foundation-funded Rwanda Institute for Conservation Agriculture (RICA) is educating its first class of students and in the process of recruiting its second class. These future leaders in agriculture are demonstrating the value of hands-on training in agriculture as well as learning the importance of translating academic insights into field-based results for smallholder farmers. In Central America, we are building on nearly two decades of experience in demonstrating and promoting conservation-based and water-smart agricultural systems to help smallholder farmers deal with extreme weather events and produce crops that go beyond meeting basic needs and actually translate to improved livelihoods. In the United States, we continue to research conservation-based ways to improve soil health and invest in efforts to protect migrant farmworkers

TRANSFORMING SMALLHOLDER AGRICULTURE

RWANDA INSTITUTE FOR CONSERVATION AGRICULTURE (RICA)

The agriculture sector makes up nearly half of the Gross Domestic Product (GDP) in many African countries, providing employment for approximately 54 percent of people in sub-Saharan regions and more than 80 percent of the population in some countries.

Keeping people on the farm serves as a counterbalance to stem rural migration into overcrowded cities, yet an increasing number of young people do not view agriculture as offering opportunities for an improved quality of life, resulting in an aging population of farmers at a time when most countries face increasing challenges to improving food security. One researcher estimated that if only 10 percent of African youth were to leave the agriculture sector, it would result in a five percent drop in the overall GDP of the entire continent.

In 2019, to address the challenges of engaging youth in agriculture and improving the connection between education, research and extension to address national food security priorities, the Foundation partnered with the government of Rwanda to welcome the first class of 80 students to RICA. Through a hands-on, practical training-based curriculum, RICA students become well versed in the principles of Conservation Agriculture and One Health, with an emphasis on communication, leadership and entrepreneurship skills. They gain field-based experience in smallholder farming, while also being exposed to six different enterprise-scale agribusinesses during their course of study.

RICA's curriculum and campus design follow the One Health model, balancing human, ecologic and animal health. RICA's students engage closely with local farming communities through on-site extension education and through the Foundation-funded NASHO Irrigation Cooperative to ensure research insights are informed by local needs and knowledge is transferred to benefit local communities. Most importantly, young Rwandans gain a very different view of agriculture, one where they can see the vast employment and entrepreneurial opportunities available and how their education at RICA will allow them to contribute to building a more food-secure Rwanda.

The cornerstone of RICA's agricultural training is a weekly eight-hour, hands-on experiential learning and practical farming course which is rooted in the principles of Conservation Agriculture (no-till, continuous cover, crop rotation, water resource and nutrient management) and includes many other farming tasks undertaken outside regular field working hours.

The goal is to help students acquire knowledge and skills in farm operations, develop good and effective work habits and truly understand farming from the perspective of everyday farmers that they can bring with them regardless of what profession they pursue in agriculture post-graduation.

The course starts by introducing students to subsistence agriculture using simple farming tools in a family farm setting and progressively exposes them to advancements in larger-scale farming, including adoption of improved methods such as drip irrigation and mechanization. Since students are training to become agricultural entrepreneurs, crop and livestock production emphasizes agribusiness components such as farm planning, business planning, record-keeping, decision-making, profit-making and other market-oriented concepts. The students work together in small groups that mirror a co-operative management model. RICA students also learn first-hand the inherent risks farmers face from elements that impact production and the need to adapt to changes beyond one's control, including from weather, soil depletion, insects, animals and more.

RICA students were able to test their adaptation skills in March 2020 when the coronavirus global pandemic forced the world to change its operating norms seemingly overnight. RICA, like many other universities and institutions, was forced to close, and RICA students returned to their homes to finish their semester via remote learning.

By September 2020, after several months of detailed preparation, RICA invited students to resume their on-campus education in a "bubble"–a fenced 20 ha (49 acres) area with a fixed population who had to adhere to strict quarantine, testing and other coronavirus mitigation protocols. Given RICA's emphasis on experiential learning, this was a critical adaptation for the students to be able to resume their studies.

Consequently, students were able to install a drip irrigation system for their first-year farms and orchards. They raised nearly 400 chicks, milked dairy cows and delivered calves. They planted and harvested RICA's first crop of lettuce as well as other fruits and vegetables. In addition, RICA prepared and planted 74 ha (182 acres) of pasture for the dairy enterprise, and 83 ha (205 acres) of land to develop into pivot-irrigated fields.

> Young Rwandans gain a very different view of agriculture, one where they can see the vast employment and entrepreneurial opportunities available and how **their education at RICA will allow them to contribute to building a more food-secure Rwanda.**

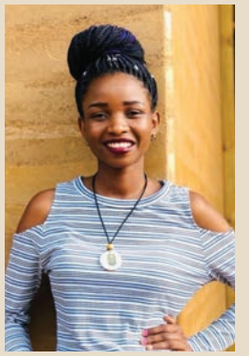
While the challenges were many in 2019 and 2020, RICA's students learned the values of adaptability, hard work and hands-on learning. As the first class of students to enter RICA, they helped establish school protocols and norms, field-tested curriculums and challenged staff and faculty. These students flourished personally and academically during these extraordinary times, even as they laid the groundwork for future classes at RICA.

Two of RICA's students share their perspectives here, in their own words.

Photos courtesy of RICA

RICA combines research, education and extension services to train Rwanda's next generation of leaders in agriculture. Students learn in the classroom and in the field, gaining hands-on farming experience from the smallholder through to the commercial enterprise-scale. These practical, real-world skills are enhanced by a curriculum that emphasizes communications, leadership and entrepreneurship.

IRADUKUNDA MIGNONE GISELE
GASHORA GIRLS ACADEMY GRADUATE



I have always found my past as motivation to work for a better future. I am the last born in a family of two children, raised by my mother only. We struggled financially, and I found ways to make money to help with expenses, mainly school materials. I joined an agriculture club where I was given the chance to carry out different agriculture projects, one being mushroom cultivation. Within this project I met many challenges, mainly poor productivity. This exposed me to challenges that Rwandan farmers face, thus pushing me to study agriculture so that I can go back to help farmers address problems that hinder their productivity.

I applied to RICA so that I can have the chance to achieve my dream of applying science in agriculture. I believe that by studying and applying principles of conservation agriculture I will be able to teach other farmers to develop the Rwandan economy sustainably, without exhausting resources for the future population. I have no doubt that I am at the right institution where my dream is going to be achieved. At RICA, I am getting the real meaning of "hands-on" experience. Most importantly, I am enjoying the way we treat our crops and soil, like a mother does for her child. I want to be an agribusiness woman with qualifications in food processing. Through extension, I hope to reach out to different regions of Rwanda to teach local farmers and ensure high agricultural productivity.

BENJAMIN NTIHEMUKA
RICA STUDENT BODY PRESIDENT

When I was a child, I was so interested in agriculture, simply because of the cartoons that I watched of ideal farms. As I grew up, I realized that the farms around us were not as stunning as the ones I saw, and my conclusion was that television shows were just ideal. I still believed this until I attended an exhibition where I saw a demonstration of a farm that was almost the same as the ones in cartoons. I was so interested that I wanted to visit the farm, and when I did, it gave me a good picture of the kind of farm I wanted to own.

Although I knew clearly what I wanted to do, there was also the reality of what was happening in the education and agriculture sectors. Since each sector shared the same threat of unemployment, the solution was to study very well to get the best job. This was not so practical in the agriculture sector because of the lack of facilities that dealt with modern agriculture. The difference between educated farmers and uneducated ones was not significant enough to make me pursue agriculture. But then I heard of RICA and it reminded me of the dreams I had when I was young. I enjoy the hands-on approach that we are using to learn and the communication course, because it helps me to learn more about how to effectively share my ideas with other people to achieve my goals.

After three years at RICA, I will be able to help Rwandan farmers shift from traditional agriculture to conservation agriculture, which will contribute a lot to the development of my country.

DEVELOPING A SMALLHOLDER MODEL FOR CENTER PIVOT IRRIGATION IN EASTERN RWANDA

The population of the Kirehe District in Rwanda's Eastern Province relies on agriculture for their livelihood and survival. Unfortunately, rainfall is erratic, and the area is prone to drought. The average annual rainfall is less than 35 inches, with a dry season that lasts more than four months. This unforgiving environment leads to modest and inconsistent crop yields in addition to high rates of poverty and food insecurity. Local farms in the Kirehe District are small, averaging about 0.8 hectares (two acres) per family. Though dedicated, farmers are often unfamiliar with modern farming techniques that can mitigate the area's three biggest challenges: drought, soil erosion and nutrient-depletion.

> To provide farmers with the knowledge and equipment necessary to address these challenges, **in 2015 the Foundation made a five-year, $129 million commitment to establish modern irrigation infrastructure** in the drought-prone Nasho and Mpanga areas of Kirehe District.

Using a system of 63 center pivot irrigation systems covering 1,173 hectares (2,899 acres) the Nasho Irrigation Project reduces farmers' dependence on irregular rainfall. The Foundation-funded 3.3-megawatt solar plant minimizes the power use needs of the systems. The 2,000 farming families with land under the pivots have formed the NASHO Irrigation Cooperative (NAICO) to work cooperatively to purchase inputs, farm, harvest, sell production and manage the system.

At the end of 2016, the Foundation, in partnership with the Government of Rwanda, funded a four-year, $1.4 million program to increase the organization and technical capacity of NAICO's farmers. An additional investment made by the Foundation in 2019 will upgrade the main powerline to the irrigation system's water pumps to improve the integration of the solar plant and the reliability of supplemental power needed when solar is not available.

NAICO uses a modern center pivot irrigation system. Center pivots irrigate in a circular pattern around a central pivot point. Though each pivot is a different size, on average each pivot services about 19 hectares (47 acres) of land. Because average farm sizes in the region are less than 1 hectare (2.5 acres), farmers first established small cooperatives to allow for the installation of the pivots, budget for operational costs and take advantage of anticipated economies of scale.

NAICO has 189 pivot cooperative leaders–three for each pivot–who act as coordinators and train farmers whose land is under the pivot. Cooperation, communication and harmonization among farmers is essential for the optimal operation of the pivots and has proven to be the biggest hurdle to overcome. Farmers were accustomed to farming their land independently. Convincing farmers to remove the markers separating their individual plots so that the land could be managed cooperatively under each center pivot required mobilization and organization of farmers by the Government of Rwanda and NAICO's extension agents. Families living within the pivot areas moved into new housing complexes, built with funding from the Foundation, to ensure the pivots were optimally placed for crop production. Farmers also strategically planted crops suited for conditions both in and outside the coverage of the pivot.

To further assist NAICO's farmers, the Foundation provided these cooperatives with farm management personnel experienced in irrigation systems and farming operations to ensure the necessary technical support was given to cooperative leaders. Through education and community outreach, the extension agents also educated the cooperatives about adopting modern, conservation-based agricultural practices and implementing sound financial practices.

Although NAICO has changed the lives of thousands of farmers in Rwanda, it was not without its challenges. Poor pipeline installation–a standard and virtually maintenance-free aspect of center pivot systems in the United States–has caused persistent leaks that needed repair. Additionally, the Covid-19 pandemic and subsequent restrictions of movement implemented by the Government of Rwanda curtailed farmers' abilities to coordinate with one another. Though average maize yields have continued to far exceed pre-project baselines, maize yields were 34 percent lower in season 2020B compared to season 2020A. This reduction is primarily due to NAICO's inability to secure the locally preferred maize seed variety. Flood and erosion control activities were largely successful in increasing land utilization from 77 percent in season 2018B, to 99.8 percent in season 2020A. However, the capacity of some sections of NAICO's drainage system proved insufficient to manage season 2020B's unusually heavy rains. As a result, roughly 183 hectares (452 acres) of irrigated land was either not cultivated or was flooded after planting. Bean yields and revenue were lower in 2020B compared to season 2020A due to widespread bean fly infestation, though NAICO agronomists do not foresee this as a recurring issue because of the recent targeted application of pesticides. Lastly, in recent seasons, NAICO has been carrying out maize and soybean variety trials, but variety trials like the hybrid soybean lines from the University of Missouri have been paused due to lack of fresh stock of breeder's seed.

To measure and evaluate NAICO's socio-economic impact on the community, in October 2020 the Foundation provided funding to the Rwanda Agriculture Board (RAB) to complete a 560-household study of NAICO farmers. Compared to the initial baseline assessment done prior to NAICO, RAB's preliminary findings reveal the project had a positive and statistically significant impact on beneficiaries' crop yields and household incomes. RAB's findings demonstrate a 43 percent increase in households experiencing an increase in crop yield, food and income and a 41 percent increase in households with access to agricultural credit. Additionally, the average annual income from project participants increased from 202,164 RWF ($203) to 1,147,216 RWF ($1,153) after four years of the project's implementation. According to RAB, the overall findings from their impact study support additional investments in smallholder-led irrigation projects in Rwanda.

Though NAICO's farmers will need to continue to adapt to demanding challenges, they are now supported by modern infrastructure, a deep knowledge base and each other.

DANIEL SHAMAFUNDO
NAICO MEMBER

Daniel Shamafundo farms 1.5 hectares (3.7 acres) under an irrigation pivot and another 0.4 hectares (0.98 acres) of land that is not irrigated. Before joining NAICO, Daniel was farming entirely with drought-tolerant crops. And while they helped feed his family, his harvest didn't allow Daniel to save or invest in future seasons. Daniel made virtually no discretionary income, and he couldn't always depend on a productive harvest. By joining NAICO, Daniel is now able to farm corn, soybeans and common beans under center pivot irrigation. His corn production has increased from 1.2 tons to 7.4 tons per hectare, soybeans increased from 0.8 to 2 tons per hectare and common beans increased from 0.8 to 2.5 tons per hectare. With his initial increased income from the irrigated harvest, Daniel bought a solar panel to light his house in a safer and less expensive way than the petrol he previously relied on.

ALIANZA CACAO

Though cacao is indigenous to and was produced in El Salvador for thousands of years, cacao production has dropped to negligible levels in recent decades as farmers shifted their focus to coffee production. However, degraded landscapes, a destructive coffee plant disease known as coffee rust, or *roya*, and falling coffee prices have now made coffee production economically non-viable for many Salvadoran farmers. One solution for El Salvador's struggling farmers is to revitalize the country's native cacao production. Not only is cacao more suitable to El Salvador's lower altitudes, it also requires less labor making it a cost-effective alternative to coffee. At low altitudes, cacao will generate more income for farmers than coffee, with a long-term return on investment of 27 percent compared to coffee's 14 percent return, and will also provide more market stability than coffee's highly fluctuating prices. Farmers' incomes have the possibility of more than tripling by introducing cacao production–mature cacao agroforestry systems can yield a projected profit of $1,105 per hectare (ha) (2.5 acres) compared to $350 per ha for coffee on the same farm. All of this means that a thriving cacao industry in El Salvador could be an economic lifeline for smallholder farmers who plant on some of the most degraded lands in Latin America and are often one bad harvest or natural disaster away from ruin.

> **Improving the soils smallholders rely on for good harvests and the overall cacao value chain they engage in will provide more prosperity** for a subset of the population that in recent years has seen migration to the United States as their only hope for providing for their families.

With this context in mind, in 2014, the Foundation invested $10 million in partnership with USAID and the U.S. Department of Agriculture (USDA) to revitalize El Salvador's cacao industry through the development of a sustainable cacao value chain. Building on a longtime partnership with Catholic Relief Services (CRS), the Foundation structured an ambitious five-year project with twofold goals: (1) improve the livelihoods of smallholder farmers by allowing them to become participants in the cacao value chain; and (2) restore degraded landscapes through the implementation of cacao agroforestry systems.

The Alianza Cacao project achieved positive impact across several areas including the creation of resilient agroforestry systems, which are necessary for diversifying income sources for farmers who regularly experience extreme weather events and water scarcity. Official government records reported 700 ha (1,729 acres) of cacao were being farmed by 350 farmers before Alianza Cacao. After the first five years of Alianza Cacao, 5,200 ha (12,849 acres) of cacao were under cultivation by 3,177 farmers.

Despite its achievements in revitalizing production, the project experienced a number of challenges which hindered progress and prevented it from achieving all of its goals. CRS set ambitious targets but was unable to source planting materials and start nurseries on schedule, delaying the initial start of the project without fully realizing the implications of that delay. By year five, CRS' goal was to have producers sell 200 metric tons (MT) (440,925 lbs) of cacao that met buyer quality standards and traceability requirements, but the delay in planting and grafting the cacao resulted in farmers only being able to sell 36.6 MT (80,689 lbs). CRS also initially struggled to choose the right mix of program leadership and staff for Alianza Cacao, which resulted in poor planning for developing producers' organizations as well as an inefficient monitoring and evaluation system that led to collection of data that was irrelevant. Both issues were identified and resolved midway through program implementation.

CRS set high initial targets for the number of farmers engaged by the project, a good objective on the surface. However, the unintended consequence was that implementing partners recruited many farmers who did not have adequate land or resources to be economically viable growing cacao. Many of the farmers who joined the program were subsistence farmers, or farmers who had a small allotment of land and typically grew fast-yielding crops. Cacao plants take three years to start producing and five years to become fully productive–subsistence farmers do not have enough land to dedicate a large portion of it to inactivity for so long.

Many subsistence farmers subsequently left the project when it became clear they could not be successful cacao growers. There were originally 5,585 farmers recruited to participate in Alianza Cacao, and of the original group recruited, only 3,177 farmers continued to cultivate cacao and participate in Alianza Cacao. This represents a participant attrition rate of 43 percent over the course of the project. And since cacao trees take up to five years to become fully productive, the farmers that remained were not yet able to make a profit from their crop. This meant that Alianza Cacao did not achieve sufficient progress in establishing a value chain that could be sustained without additional external support.

Despite these setbacks and because sustainability had not yet been achieved, in 2019, the Foundation, now the project's sole funder, approved a new five-year, $10 million program to achieve the Alianza Cacao's original objectives–sufficient production scale and a strong value chain that is self-sustaining after the project's conclusion. The next five years of Alianza Cacao will continue providing technical assistance to cacao producers while strengthening cacao processors in El Salvador, connecting Salvadoran producers with both domestic and international cacao markets and improving the overall cacao value chain in El Salvador.

Despite the impact that the Covid-19 pandemic has had on global travel and trade, the emerging cacao value chain stakeholders supported by our grant were able to quickly adapt and engage with customers through digital marketing strategies. Though in-person events like business fairs were cancelled because of the pandemic, the small and medium enterprises supported by the project were able to sell all of the nearly 150 MT (330,693 lbs) of cacao they produced in 2020 and are working to meet increasing demand for Salvadoran cacao. Apart from the pandemic, this year brought extreme weather events to Central America, specifically Tropical Storms Amanda and Cristobal in the summer, reducing cacao production by 30 percent in El Salvador. CRS quickly mobilized farmers and extension agents for storm cleanup, preventing further damage to cacao fields from excess rains. The cacao production lost due to the storms will be harvested in winter of 2021 and will be reflected in next year's sales.

ODILIA DEL CARMEN ASCENCIO
CRS ALIANZA CACAO FARMER

Odilia del Carmen Ascencio, a leader, entrepreneur and mother of five has always been enthusiastic to be part of anything that benefits her family and her municipality in Usulutan, El Salvador. To avoid losing all the work her father had put into their coffee farm due to the low coffee prices, Odilia's family joined the Alianza Cacao project in 2016 to diversify their cash crops.

Odilia's six acres of cacao trees started to produce in 2019 despite issues she faced like pests, diseases and dry spells. According to Odilia, the support she has had from Alianza Cacao through training and technical assistance has been fundamental in overcoming these adversities.

Already a founding member of the local cacao cooperative, Odilia has expanded her leadership roles to now participate in El Salvador's National Cacao Roundtable, where she continually looks out for the wellbeing of her fellow cooperative members and the cacao sector in general.

"Cacao growing turned my routine around and has allowed my children and me to become involved in this activity, where we make the best of all possible opportunities...but it also keeps us together and makes us want to continue to succeed."

A BETTER MODEL FOR RECRUITING MIGRANT FARM LABOR

FORCED LABOR SURVEILLANCE AND INTERVENTION PROGRAM FOR FARM WORKERS

Migrants make up most of the labor force in the U.S. agricultural sector; entire industries would be crippled without them. The USDA estimates that nearly half of all hired crop farmworkers lack legal immigration status in the United States.[1] Migrants from Guatemala, Honduras, El Salvador, Mexico and from all over the world come to the United States in search of economic opportunities and to flee violence and poverty in their home countries. Unfortunately, migrant laborers are also at a heightened risk for human and labor trafficking. Farmworkers usually work and live in remote, rural areas far from authorities and social support networks, making it difficult for law enforcement to identify them and prosecute their traffickers. Those lacking legal immigration status are particularly vulnerable.

> To address the problem of forced labor in the agriculture sector, the Foundation partnered with the United Farm Workers (UFW) on a pilot program to increase the awareness and prosecution of labor trafficking in the agriculture sector, **a crime that is chronically under-investigated and rarely prosecuted in the United States.**

Though the original three-year proposal sought to develop a system for farmworkers to report on labor abuses through a dedicated help line and a mobile app, the Foundation soon determined that UFW's capabilities were better suited to supporting efforts to investigate and litigate identified human and labor trafficking cases and to producing a "legal toolkit" to assist legal professionals around the United States in pursuing these challenging cases.

As a part of the refocused grant, UFW supported the litigation of two precedent-setting cases of farmworker abuse, and through their work, helped educate U.S. authorities on what these cases look like and how to effectively investigate and prosecute them.

In Fresno, California, one employer was successfully prosecuted after workers reported to the UFW that they were being held against their will through economic coercion and threats of violence. The defendant, a farm manager, was convicted by a jury on three counts of extortion and one count of labor trafficking and sentenced to eight years in prison. The case was the first farmworker human trafficking conviction in the history of Fresno County, even though Fresno is one of the top counties in the nation for agricultural production.

In 2017, the UFW filed a civil lawsuit against Funk Dairy in Idaho in defense of six qualified Mexican professionals who were recruited to work as veterinarians but were instead coerced into doing grueling manual labor.[2] Cases such as these are not uncommon in the world of migrant labor, but unfortunately, are extremely difficult to successfully prosecute. Workers may struggle to produce adequate documentation of the benefits they were promised by recruiters and employers, and as a result their cases can be easily refuted in court. The Funk Dairy case was eventually dismissed in May of 2019 due to the defendants' inability to provide substantial evidence to back up their claims of a broken agreement. The UFW filed an appeal in the 9th Circuit Court and is currently awaiting the judge's decision.

Though the UFW was able to pursue high-impact and precendent-setting cases with Foundation funds, this grant also illustrated why trying to tackle human trafficking on a case-by-case basis is impractical and instead demands holistic solutions to systemic problems.

Consequently, the Foundation continues to focus its grantmaking on efforts to systemically and strategically address human and labor trafficking. To that end, in 2020 we added "Combatting Human Trafficking" as a priority program area for the Foundation's investments. We are in the process of building a strategy to scale the Foundation's grantmaking in this area in the United States by investing in a community-centered approach that builds capacity in law enforcement and victim service providers, while looking at ways to identify the linkages between human trafficking networks that are multi-jurisdictional.

1 https://www.ers.usda.gov/topics/farm-economy/farm-labor/

2 https://ufw.org/Abused-workers-turned-to-UFW-for-help-Federal-lawsuit-filed-alleges-forced-labor-at-rural-Idaho-dairy/

ANALYZING TRENDS IN MIGRANT FARM LABOR IN NORTH AMERICAN AGRICULTURE

North American agriculture is one of the most integrated food systems in the world, and dynamics around migrant farm labor are continually evolving. In 2019, the Foundation funded a three-year grant through the Wilson Center to support research to analyze trends in migrant farm labor in North America. The project collects data on farm labor in Mexican and U.S. agriculture, paying special attention to several subgroups, including H-2A guest workers in U.S. agriculture, and Mexican and Central American migrants in Mexican agriculture. The project's goal is to map characteristics of commodities, employers and workers to understand worker protections and compliance with labor laws.

The geographic spread and characteristics of farm labor can be used to create a predictive model to better focus labor law enforcement resources. For example, the project found that within a single North American Industry Classification System (NAICS) code–115115 for farm labor contractors–the top five percent of contractors accounted for 50 to 75 percent of all labor violations. This type of analysis can help labor law enforcement agencies focus their resources to identify and target the most egregious violators.

The project includes training seminars for labor law enforcement agencies in Mexico (Mexican Secretariat of Labor and Social Welfare, STPS) and the U.S. (Wage and Hour Division) that shares analyses of the data collected, including enforcement data and commodity-specific production and labor data that can be used to focus labor law compliance resources. Data collected through focus groups and field interviews with farmers have also identified ethnic and gender wage gaps among farmworkers in the U.S. and Mexico. This research will lead to further insights on how poverty, rural migration and worker conditions affect farmworkers in both countries.

While the pandemic has slowed data collection, analysis and research continue, and project leadership continues to collaborate with both U.S. and Mexican labor law enforcement agencies. The project team also publishes quarterly newsletters as well as five blogs per month on farm labor, trade, labor migration, Covid-19 implications for farmworkers and related issues. The Foundation hopes findings from the Wilson Center grant will aid labor law enforcement agencies, labor contractors and government officials in their efforts to improve the working conditions and livelihoods for farmworkers in the United States and Mexico.

Many industries in the United States, particularly the agricultural sector, depend on migrant labor. Current guest worker visa programs frequently fall short of the demand for labor or are considered too onerous or inflexible by employers. These jobs are often filled by undocumented workers, who are particularly vulnerable to labor trafficking and exploitation.

CIERTO FARMWORKER RECRUITMENT MODEL

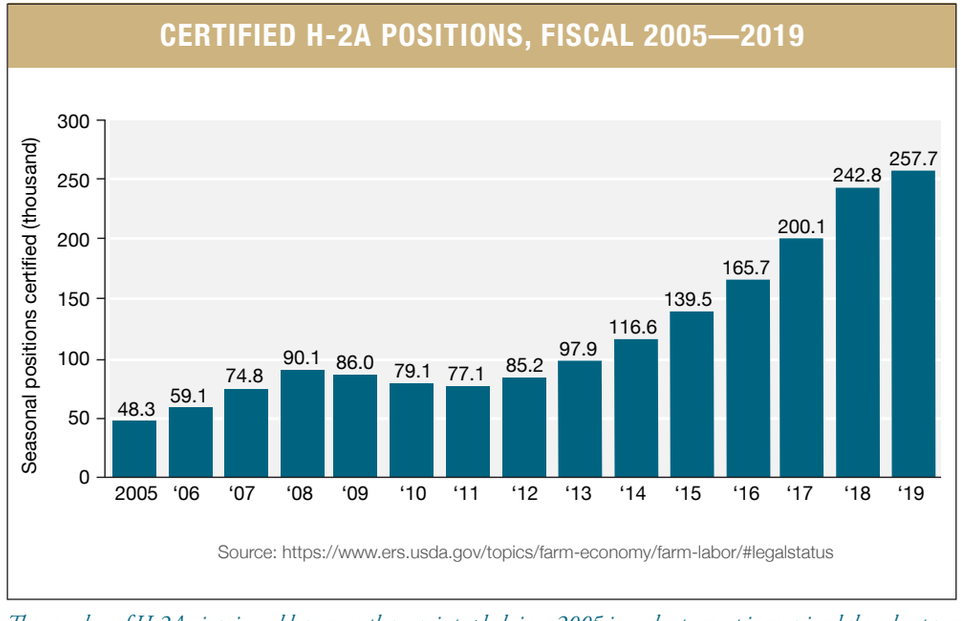
The H-2A guestworker visa program has helped U.S. farmers hire temporary, foreign workers to meet labor shortages.[1] Since the program's inception in 1986, demand for H-2A workers has grown steadily, with the number of H-2A visas given out annually quintupling since 2005.[2] The Department of Labor approved more than a quarter of a million H-2A visas during fiscal year 2019 alone.[3] Although employers who hire H-2A workers are routinely audited and inspected, the H-2A program is fraught with abuse and fraud–particularly in the home countries where workers are recruited. Most H-2A workers come from Mexico, and recruiters there often illegally charge workers exorbitant recruitment and transportation fees.

> Once on farms in the United States, **workers can be subjected to abusive labor practices** and charged unreasonable prices for basic needs like meals and lodging. These illegal labor and recruitment practices mean that many H-2A workers find themselves hopelessly trapped in debt-peonage to the growers whose farms they work on.

In 2017, to address the abuses in the H-2A program, the Foundation made a three-year, $1 million dollar grant to support the creation of CIERTO, a farmworker recruitment and verification model that has become the International Labor Organization's (ILO) first and only "best practice" recruitment model in the Americas. With the Foundation's support, CIERTO established itself as a clean and transparent farmworker recruiter. CIERTO's multifaceted model includes training so that workers have successful contract deployments on U.S. farms and verification systems to ensure that workers' contracts and labor rights are being adhered to by employers. CIERTO's training and verification systems not only hold employers accountable, but also ensure workers know their rights, understand the scope of their work contracts and are provided with the wages they are guaranteed under U.S. law. CIERTO-trained workers often take home more pay than other H-2A workers who are more vulnerable to employer wage theft.

To date, CIERTO has recruited and trained over 3,400 Mexican workers employed on H-2A visas across four different farms in the United States. CIERTO has built a reputation among the country's most important retailers, most notably Costco, as one of the few organizations that can ensure clean and transparent recruitment of H-2A workers. As U.S. consumers increasingly demand their dollars support ethical business practices, businesses like Costco are responding by promoting CIERTO's services with their suppliers and growers.

America's farmers and our country's food security depend on migrant labor. The Foundation's support for CIERTO's transparent and ethical recruitment model is helping safeguard the rights of migrant workers while raising the standard for every employer using H-2A workers.



The number of H-2A visas issued has more than quintupled since 2005 in order to meet increasing labor shortages in the U.S. agricultural sector.

1 http://www.workingimmigrants.com/2013/01/temporary_worker_programs_intr.html
2 https://www.cato.org/publications/immigration-research-policy-brief/h-2a-visas-agriculture-complex-process-farmers-hire
3 https://www.cato.org/publications/immigration-research-policy-brief/h-2a-visas-agriculture-complex-process-farmers-hire#h-2a-program-rules

BIOLOGICALLY ENHANCED AGRICULTURE MANAGEMENT FOR HEALTHIER SOILS

Soil health is an important predictor of the productivity and yield of a crop. Overworked and nutrient-depleted soils increase erosion, lower yields and produce less nutritious crops. The heavy tilling of soil destroys soil structure, making it much more susceptible to erosion. Tilling also destroys many of the naturally occurring microbiological communities in soil, especially the fungal populations. These complex microbiological communities help transport nutrients to the plant; intact soil structures and healthy soil microbiomes not only increase plant health, but also increase the nutrient level of the crop itself. About a third of all soil on the planet has already been severely depleted, and if current trends in soil degradation continue, by 2075 nearly all the topsoil in the world will be gone. It can take up to a thousand years to form an inch of new topsoil, so the protection of healthy soil is an economic, ecological and food security imperative.

In 2019, with the support of the Foundation, scientists from California State University in Chico and New Mexico University teamed up to test a new method of soil health management known as Biologically Enhanced Agriculture Management (BEAM). Their five-year joint research effort is designed to identify ways to replenish nitrogen-depleted soils using healthy bacterial and fungal microbiota. Microbes can have a powerful impact on soil health. They can break down residual stores of chemicals in the soil, combat dangerous pathogens such as E. Coli, improve soil structure and more than triple the soil's water storage capacity. Microbes not only replenish the population of healthy bacteria in degraded soil, but they also free up other nutrients to support plant growth.

Photo courtesy of Dr. David Johnson, NMSU

This photo shows the single-species cover crop on the left and multi-species cover crop on the right at the BEAM research plot on the Foundation's farm in Willcox, Arizona. The ground cover on both treatments was significant but the multi-species cover crop developed more total biomass than the single-species cover crop.

Test studies with the BEAM method found that plants grown in depleted soils only devote three percent of their energy to actual growth. Conversely, plants grown in soils flush with fungal microbes and healthy bacteria spend over half of their energy growing, resulting in improved yields.

The BEAM method is being tested at the Foundation's farm in Willcox, Arizona, on an 88-acre pivot plot utilizing conservation agriculture practices. The project's first year was dedicated to establishing a reliable baseline of current soil inorganic matter and soil microbe conditions. In addition, preliminary observations were made on winter cover crop biomass and corn production. Comparison of corn production between three treatments showed equal productivity between Beam +15 percent nitrogen and the conventional application of nitrogen. BEAM without any nitrogen showed 6.6 percent lower corn yield.

At the beginning of the project's second year in June 2020, the BEAM team finalized results for their testing of a ten-species cover crop mix and a single-species cereal rye cover crop mix which was applied during the 2019-2020 winter growing season. The multi-species cover crop mix was designed to implement large tuber plants (radish, turnips, beets) and help soften the compacted soil. Multi-species cover crops resulted in approximately 35 percent more aboveground biomass when compared to the single-species cover crop.

Upcoming research will involve pinto bean production on the same field where corn was planted in 2019. Planting and soil microbial community inoculation began in June 2020, and the research protocol will be identical to the previous year's corn trial with three treatments of nitrogen applied at varied levels. The Foundation and the BEAM team understand that multi-year research projects are essential to gain a better understanding of the strengths and weaknesses of what the research team is calling "regenerative agriculture" practices and are critical to implementing BEAM into mainstream agriculture.

A portion of the BEAM project includes public outreach and engagement, so that the study's valuable information around crop yields and soil health can be shared with others in the agriculture sector. Although outreach and engagement was limited in 2020 due to restricted travel during the Covid-19 pandemic, the BEAM team continues to achieve promising results. Promoting conservation agriculture techniques and implementing proactive soil health management are the best ways to ensure the next generation of farmers will be well equipped to handle agriculture's many challenges.

The first year of the BEAM project's corn production field tests compared three different nitrogen (N) application levels on three separate corn fields, as prior research indicated that corn crop yields were benefiting from some source of organic N in either the soil or water. One 'conventional field' had 250 pounds of N applied; a second 'BEAM 15 field' had 38 pounds of N applied, which is 15 percent of the 250 pounds applied on the 'conventional field'; and the last 'BEAM only field' had no added N applied. The Foundation found that the 'BEAM 15' field treated with BEAM and 15 percent N produced the highest yield of 203.56 bushels per acre (bu/ac), while the 'BEAM only field' treated with BEAM but no added N produced 194.39 bu/ac. Overall, results to date have shown that the 'BEAM 15 field' out yielded the 'conventional field' by 2.75 bu/ac and also out yielded the 'BEAM only' field by 9.17 bu/ac. The Foundation plans to replicate this research in both Illinois and Nebraska to further clarify results.

CONFLICT MITIGATION

Our grantmaking to mitigate conflict has mostly shifted from Africa to Latin America. We are increasing our support to improve citizen security and reduce criminal impunity in El Salvador, and are extending our support in Colombia for post-conflict development, targeting rural regions of the country where armed groups remain active and peace is most fragile.

INVESTMENTS IN CITIZEN SECURITY IN EL SALVADOR

IMPROVING CITIZEN SECURITY IN EL SALVADOR

In El Salvador, a country with one of the highest homicide rates in the world, only about one in 10 homicides results in a conviction. High rates of impunity have allowed criminal gangs to flourish, and law enforcement officials tasked with investigating gang violence lack the capacity and resources to do so.

> A 2016 study by El Salvador's Central Bank estimated that **Salvadorans pay a total of $756 million in extortion to gangs every year**, and that the amount of money people pay in extra security and lose in income from fear of working equates to 16 percent of the country's GDP.

Unfortunately, the burden of these costs disproportionately falls on El Salvador's poorest citizens, who are frequently restricted from moving between gang-controlled neighborhoods and are forced to pay high rates of extortion to different gangs simply to go about their daily lives.

Inadequacies at every level of the Salvadoran justice system make it difficult for police and prosecutors to address the rampant gang violence. Police departments and prosecutors' offices around the country lack the most basic resources, equipment and training which leaves them almost powerless to fight the well-connected and increasingly sophisticated networks of gangs. To address the myriad issues facing the Salvadoran justice system, the Foundation built on its partnership with the International Justice Mission (IJM) to strengthen El Salvador's investigative, law enforcement and prosecutorial capacity to improve citizen security. In 2017, the Foundation funded IJM's expansion into El Salvador as well as a Year Zero assessment phase. The findings from this initial assessment enabled IJM and the Foundation to gain a deeper understanding of where the justice sector was failing citizens impacted by gang violence and subsequently how best to develop programming to address those gaps.

Based on these findings, in 2019 the Foundation funded a four-year multi-faceted intervention by IJM throughout the department of La Libertad, as well as in Mejicanos-Ciudad Delgado, a municipality in the department of San Salvador. The project focuses on increasing the effectiveness of investigators from El Salvador's National

Civil Police (PNC, for the acronym in Spanish), building the capacity of Salvadoran prosecutors and ensuring that law enforcement officials are appropriately trained to deal with victims who have suffered trauma. The Foundation also supported the implementation and resourcing of critical investigative equipment to expand the PNC's intelligence-gathering capacity.

With the Foundation's support, IJM is able to collaborate with the PNC and the Attorney General's Office by embedding mentors in investigative units; providing trainings on topics like interviewing techniques, negotiations and criminal prosecution policy; developing case management systems; providing training support for the national training academy; and providing investigative equipment and infrastructure. Since the program's inception, IJM identified the inadequate treatment of victims as one of the most important barriers to justice in the country. PNC officers are rarely trained on victim engagement, and interactions with the PNC can leave victims feeling scared, confused, and ultimately, uncooperative. To combat this, IJM provides training on practical strategies and techniques for trauma-informed care by justice sector officials, including the implementation of workspace improvements and private areas for victim interviews.

IJM's model of justice sector transformation is built on close collaboration with local justice sector leaders, and when the Covid-19 pandemic swept the country in early 2020, IJM was able to quickly adjust their programming so that close collaboration could continue. IJM adopted virtual learning and mentoring strategies which were supplemented by video calls and electronic messaging. IJM mentors adapted to a semi-face-to-face learning plan which focused on investigation planning, case file organization and compliance with prosecutorial deadlines. However, due to the pandemic, many PNC officers in IJM's program were temporarily re-assigned from their normal duties to tasks like attending to quarantine centers, patrolling and guarding buildings. Subsequently, the number of mentored investigators was limited, and there were significant delays in the processing of active cases. Additionally, over 40 percent of PNC officers in IJM's program had to self-quarantine for at least two weeks due to suspected Covid-19 exposure.

Despite the additional challenges the pandemic created, IJM still managed to make meaningful change in the Salvadoran justice sector in 2020. The Investigations Unit of the PNC in La Libertad has fully adopted a comprehensive case tracking and management system, enabling more efficient and accurate monitoring of cases, which has also resulted in an increase in case quality.

Investments in infrastructure and equipment resulted in a three-fold increase in the number of personnel able to carry out investigative activities. Additionally, because of IJM's mentorship and training, 69 percent of prosecutors reported significant improvement in coordination with police investigators and 97 percent of prosecutors reported an overall improvement in the quality of their work. A program participant in Zaragoza said: "If you make a comparison with another prosecutor's office, you can see the difference. IJM is a source of resources and advice, and it shows in the impact that it has on users. All of this affects criminal investigations and care for victims. It is a better service that we now give to citizens. Personally, I have more knowledge in the care of victims, and I am sensitized on issues of legislative policy on women."

A core tenet of IJM's programming is to train prosecutors in plea bargaining, a prosecutorial tool underutilized in El Salvador. In June 2020, the Attorney General of El Salvador implemented a new plea bargain protocol to allow prosecutors to use plea bargains for violent crime. We are optimistic that wider use of plea bargains, together with other reforms promoted by IJM, will allow prosecutors to relieve backlogged cases, secure justice for victims of crime and hold criminals accountable.

Transforming the Salvadoran justice sector will not happen overnight. To tackle its outsize gang violence problem, El Salvador will need a sustained, flexible effort that prioritizes victim care, provides mentorship to prosecutors, increases inter-agency communication and provides law enforcement officers with the resources to do their jobs well.

IMPROVING JUSTICE SECTOR SYSTEMS IN EL SALVADOR

El Salvador's Attorney General's Office is an independent institution that is charged with leading all criminal investigations in the country. Its electronic case management system, SIGAP, stores criminal case files for the entire country. Prior to the Foundation's intervention, the system was slow, unreliable and difficult to navigate. Prosecutors often failed to enter appropriate information about each case because doing so was cumbersome and time-consuming. This meant that SIGAP was serving only as a depository of information, not as a dynamic tool to help prosecutors solve cases and administer justice, contributing to El Salvador's high rates of impunity for criminal activity.

To address these system deficiencies and barriers to successful investigation and prosecution of criminal cases, the Foundation funded a $2.6 million upgrade to both the system's hardware and software in 2018. The SIGAP application is now running much faster on hardware, software and database technology that is up to date, stable and responsive. The system is now always available, and there is little to no risk of the system losing its data.

In late 2019, the Foundation agreed to fund further improvements with a three-year, $10 million project to upgrade the user interface of the SIGAP system and also digitize all of the paper case files in the Attorney General's Office's general archive. The user interface upgrade will include improvements like adding a business content manager and creating modules within SIGAP for the Attorney General's Office's specialized units, while incorporating autosave capabilities. These upgrades will facilitate the entry of data and information into the system, turning it into a more efficient and dynamic investigative tool. Digitizing case files will also expand on the data available in the system, allowing investigators to cross-reference suspects, weapons and identify crime patterns. This information will also allow SIGAP to produce analyses that inform the daily work of the Attorney General's Office. Not only will the new upgrades to SIGAP help to reduce the backlog of cases in El Salvador's legal system, they will expedite the investigation and prosecution of serious crimes, improving the effectiveness of the justice sector as a whole.

A PLACE-BASED APPROACH TO COMMUNITY RESILIENCE IN EL SALVADOR

In 2016, the Salvadoran government estimated that 15,000 students had dropped out of school that year due to violence. Over the course of a year, two adolescents were killed every three days–95 percent of those victims were between the ages of 12 and 18. Victims of direct violence are more likely to perpetrate violence against others, trapping communities in a deadly and never-ending cycle. Providing appropriate support for individuals who have experienced trauma as a result of violence is one of the best ways to stop future violence. Community resources, mental health counselors and well-trained law enforcement and first responders are all necessary components of violence prevention.

In June of 2019, the Foundation provided a $5 million grant to Glasswing International, a Salvadoran nonprofit organization the Foundation had previously partnered with on violence prevention programming in Parque Cuscatlán, to prevent, respond to and mitigate the causes and consequences of violence in San Juan Opico, a community that suffers from continual gang violence.

Glasswing already had well-established working relationships in this area with critical implementing partners in local government and the private sector.

This four-year program partners with public sector allies in health, law enforcement and education to provide specialized support and resources to at-risk youth between the ages of five and 29. These agencies are teaming up to help youth develop skills to manage stress and trauma so they can better combat the influence of violence. Many of the youth in this target population are not currently involved in crime but live in marginalized areas that put them at a higher susceptibility to gang and criminal influence. Health, education and law enforcement groups provide a three-pronged approach to addressing the needs of these young people.

Violence prevention and treatment also extends beyond the victims. Educators and first responders in law enforcement and public health often incur trauma in the course of their work. This program also provides appropriate training and support so that educators and first responders can manage their own trauma. This will better equip them to provide effective care and services to traumatized populations.

Developing resilience requires the active participation of an entire community. Two core parts of this program include strengthening the capacity of the police to address the trauma and mental health needs of its own officers and helping victims of violence improve their ability to manage and recover from trauma.

Since police often overnight at their precinct offices, which are not conducive to rest or privacy, the program includes funding for small-scale infrastructure improvements. Including these modest renovations in the program allows police officers to have a better work and living environment, which allows them to better care for themselves and provide better services to civilians.

INDIGENOUS LAND RIGHTS IN NICARAGUA

The Miskitu people have lived on Nicaragua's Caribbean coast since the 1600s, but over the centuries have faced near-constant attempts at invasion and displacement from illegal settlers, rebel groups and the government. Despite laws that designate their lands as protected, Miskitu communities face mounting threats from logging, mining and ranching industries that have been granted illegal concessions by the Nicaraguan government to access their lands' natural resources. Agriculture and resource extraction on these protected lands has led to violence, intimidation, forced eviction and a loss of livelihoods for the Miskitu, threatening their very existence.

Photos courtesy of The Oakland Institute

Since 2015, the Inter-American Court of Human Rights has issued protective measures for 12 Miskitu communities along the Rio Coco, pictured above, because of the deadly violence they've faced from illegal land settlers seeking access to their lands' natural resources. Despite these measures, targeted attacks on these indigenous communities continue to increase, with a number of Miskitu murdered in early 2020. The Oakland Institute research team has collected numerous accounts of how Nicaraguan government actors have worked in opposition to their legal obligations to protect indigenous lands and have granted illegal concessions for resource extraction on autonomous territory.

The Foundation partnered with the Oakland Institute to research, document and raise awareness of the plight of the Miskitu people and to highlight the Nicaraguan government's legal obligations. The Oakland Institute's grant included field research that produced an independent report and a global education campaign in support of the Miskitu's legal land rights. For the report, the Institute partnered with Lottie Cunningham Wren, a renowned Nicaraguan lawyer who represented Miskitu communities at the Inter-American Court of Human Rights in a successful case to secure their land rights. After the release of the Oakland Institute's report, Cunningham was awarded the 2020 Right Livelihood Award, also known as the Alternative Nobel Prize, for her work in advocating for Nicaragua's afro-indigenous communities.

The Institute's report, which was released in April 2020, caught the attention of major international news outlets, including *The New York Times, The Guardian, The Washington Post, Le Monde* and ABC News, all of which covered the report's findings. Months after the report's initial release, the Oakland Institute's research was featured on PBS News Hour in their coverage of the connection between the Nicaraguan beef industry, which increasingly exports to U.S. markets, and illegal invasions of indigenous land.

> **Land right protections for marginalized communities are fundamental to a functioning and inclusive justice system** that mitigates conflicts and allows peace and development to flourish.

The Oakland Institute's research and subsequent successful media campaign on behalf of the Miskitu people is a testament to their meticulous collection of evidence of crimes against marginalized populations and their ability to attract and sustain public awareness around those crimes.

ADDRESSING CORRUPTION IN CENTRAL AMERICA

An analysis by the Organized Crime and Corruption Reporting Project estimated that corruption costs Central America's economies $13 billion annually. In March 2019, in close collaboration with and at the request of the U.S. Embassy in El Salvador and the U.S. Bureau of International Narcotics and Law Enforcement Affairs, the Foundation funded a $350,000 grant with Florida International University (FIU) to pilot a program to increase the capacity of Central American justice systems to combat corruption.

El Salvador's former Attorney General and anti-corruption crusader Douglas Melendez was brought in to lead the program as its Judicial Expert. Over the course of the year-long program, Melendez offered guidance to Central American justice sector officials on international conventions on asset forfeiture, money laundering and other topics. The Anti-Corruption Program was able to bring regional civil society leaders and justice sector officials together, strengthening their relationships through their shared goal to combat corruption in their home countries.

The program faced a number of challenges. Virtual anti-corruption trainings were hampered by high levels of distrust by judicial officials in discussing anti-corruption matters. FIU was not able to find alternative methods to hold the anti-corruption trainings, which remained an unaccomplished goal by the end of the pilot program. However, Melendez continued to foster connections with government officials and serve as an expert advisor to Central American justice institutions.

FIU hosted two anti-corruption webinars in May and June 2020, which attracted 375 attendees in total, contributing to the goal of increasing regional information-sharing on anti-corruption efforts and reducing impunity. At the conclusion of the pilot program, FIU committed to continuing the webinar series through the end of 2020. The long-term impact of this pilot project on anti-corruption efforts in Central America is best summarized by Melendez himself, who wrote that the key to sustaining anti-corruption efforts is an engaged, independent and united civil society.

PEACE THROUGH DEVELOPMENT IN COLOMBIA

SUBSTITUTING COCA WITH COFFEE IN COLOMBIA

Cultivation of coca, the main ingredient in cocaine that is ultimately exported to the United States and Europe, continues to be a monumental barrier to peacebuilding in Colombia. In 2019, the United Nations Office on Drugs and Crime reported 154,000 hectares of coca in Colombia–only a slight decrease from the record high in 2017. For many smallholder farmers, coca is the only viable crop with an established market and value chain that ensures they can achieve a livelihood that sustains their families. Armed groups offer a consistently high price, and farmers never have to worry about transporting their product or finding a buyer. Most smallholder farmers want a way out of the drug trade, but those who attempt to convert their coca fields to legal crops often face threats and intimidation.

In 2018, the Foundation piloted a voluntary coca substitution project with 100 coca growing families in El Rosario, Nariño, in partnership with the Colombian Coffee Federation (FNC, for its acronym in Spanish) and Nespresso. Project participants agreed to convert their coca fields to coffee, in exchange for technical assistance to improve coffee quality and productivity; investments in productive infrastructure; and most importantly, guaranteed access to a premium buyer: Nespresso.

In 2019, following early successes in the 100-farmer pilot initiative, the Foundation expanded its support to the broader El Rosario community by funding improvements to its water purification and wastewater management systems, and the local health center.

As of late 2020, the pilot project shows early signs of success. Participant farmers have eliminated their coca, improved the productivity and quality of their coffee, increased their annual incomes and even registered under Nespresso's AAA quality program, which entitles them to additional training, benefits and prices for higher quality coffee. During the 2020 harvest, the first for the project, participants increased their annual income by $1,000 compared to their pre-pilot incomes, earning an average of $3,552 from the sale of their coffee to Nespresso. As the project continues, we anticipate that participants' annual incomes will continue to rise as they improve their yields.

The coffee warehouse built for the project also enabled both project participants and other community farmers to sell their coffee directly and safely through a cooperative rather than middlemen. This increased local coffee bean sales in 2020 by 148 percent to $645,000 for the community as a whole. This project suggests the viability of voluntary substitution efforts when they (a) include real market actors to build new value chains that can be sustained for the long-term and (b) incorporate investments that more immediately address real community needs. The success of the individual farmers who have fully eradicated their coca is also evident to the remaining farmers who can now see a legal farming path out of poverty, insecurity and economic instability.

In 2020, we decided to expand the pilot to reach an additional 300 families in the community–offering them the same opportunities to replace their coca with coffee. This expansion also includes improvements to tertiary roads in the community, to decrease travel times and costs for farmers to access each other and markets in El Rosario city and other parts of Nariño. Participants will also continue to benefit from Nespresso's guaranteed purchase of their coffee, which is being used in a limited-edition *Esperanza de Colombia* capsule this Fall. Nespresso expects to produce another capsule next year using coffee sourced exclusively from project beneficiaries in El Rosario.

Insecurity and violence will continue to flourish in Colombia so long as there are actors profiting from the production and trafficking of cocaine. Too often left out of the discussion of coca eradication efforts are the smallholder farmers who simply do not have access to an alternative livelihood. Dismantling the coca economy in Colombia requires sustained efforts that combine eradication with viable economic opportunities that meet the needs of these smallholders.

Photo courtesy of Mercy Corps

A majority of the cocaine that is consumed by Americans is produced in Colombia, where smallholder farmers have for decades cultivated coca, the raw material needed to produce cocaine. Many places in rural Colombia have no roads, no access to conventional markets and farmers lack opportunities to produce viable incomes; as a result, farmers produce illegal crops. Coca crop substitution programs are critical to offering farmers access to alternative, legal livelihoods. Melva Natividad Gonzales, pictured above, is a 40-year-old coffee farmer living in Tambo, Cauca, and one of the participants in the Foundation's ALGO Nuevo coca substitution project in southwestern Colombia. Melva volunteered to substitute all 0.7 hectares (1.7 acres) of her coca plants for coffee, receiving assistance from the program to improve her coffee growing methods and the sustainability of her farm. In 2020, Melva sold a total of 1,926 kilos of her fair-trade certified coffee (approximately 4,200 lbs), up 72 percent from 2019, increasing her coffee income by 140 percent over previous years.

Photo: HGBF

In January 2020, the first 12 families in the department of Cauca, Colombia, received formal title to the land they have lived and worked on, some for decades, as part of a Foundation-funded program to help nearly 1,000 families replace their coca crops with coffee. Gaining land title has both symbolic and practical implications for farmers: they gain recognition from the state; they have an asset that provides them access to financial services; and they have something to lose if they grow illegal crops.

LAND-TITLING AS A TOOL FOR PEACE IN COLOMBIA

Fifty years of civil war has led to mass internal displacement in Colombia and an extraordinary rate of informal land ownership within the country. When smallholder farmers do not have formal title to their land, they are unable to access the financial services they need to make their lands more productive. It is estimated that in 2020, approximately six out of every 10 plots of land in the Colombian countryside do not have formal titles or any legal registration, leaving many farmers without access to credit or capital. Left with few legal alternatives to put food on the table, smallholder farmers often resort to coca crop production.

Ex-guerilla dissidents and other armed groups offer struggling rural farmers the promise of steady income and threaten those who refuse to participate. The confluence of poverty and insecurity still experienced by thousands of smallholder farmers in Colombia's rural areas is contrary to the promises made by the 2016 Peace Agreement, which ended the country's civil war and set ambitious benchmarks to formalize property rights, eradicate coca and increase citizen security. Without access to alternate, viable economic opportunities, poor farmers have no choice but to continue growing coca.

Recognizing that land ownership is a critical building block for rural smallholder farmers to improve their incomes and convert their production to legal crops, the Foundation is supporting initiatives to help smallholder farmers secure titles to their lands on the precondition that they voluntarily eradicate their coca crops.

This is not a simple trade-off for smallholder farmers based on the easy economics of growing coca. Low-income farmers do not have to invest much capital to grow coca crops, which can be harvested multiple times a year, have guaranteed and readily accessible market buyers and are not subject to the variabilities of commodity pricing. However, coca production is an unsafe business for farmers and their families–many smallholder farmers want to leave coca production but do not have the means to do so. Securing title to their land provides financial stability and ensures real accountability for how they use that land. Farmers caught growing coca risk losing their land title and the financial benefits that accompany it.

One 2017 study published by the international journal *World Development* found that formally titling one hectare (2.47 acres) of land can lead to the elimination of 1.4 hectares (3.46 acres) of coca.

To support farmers in the Colombian department of Cauca, the Foundation provided a $7.7 million grant to Mercy Corps to secure land titles for 1,800 smallholder farmers who voluntarily agreed to substitute their coca crops and transition to legal crops. **In the two years since the program began, over 900 rural farmers have secured legal title to their lands and are exclusively growing coffee and sustenance crops.**

Since coffee plants take five years on average to mature and become profitable, smallholder families participating in the program receive corn seeds, beans and other resources to help them through the transition from growing coca. In 2020, short cycle crops helped feed their families and provided a third of the income they previously made from the sale of coca. The project is also helping farmers improve their farming methods. At the end of the 2020 harvest, farmers were on track to increase their coffee yields by three percent. As their coffee crops continue to mature and produce more coffee, farmers' incomes will also continue to grow.

The success of the project has generated more interest from other coca producers in Cauca, and in 2020 the Foundation approved a $13.7 million expansion of the project that will help an additional 2,000 smallholder farmers eliminate growing coca and gain legal titles to their land.

The Foundation is applying this same approach in the department of Catatumbo, on Colombia's border with Venezuela, which has the highest concentration of coca production in the country and where the criminal organization the National Liberation Army (ELN, for its Spanish acronym) controls much of the territory. Given the security situation, efforts in Catatumbo are beginning by helping 900 families in the municipality of Tibu secure title to their land and supporting those families plus another 100 families with short-term food security assistance.

To better understand the impact of this program, two of the beneficiaries of this work have shared what gaining legal title to their land has meant for their families.

EMPOWERING COLOMBIA'S LAND OWNERS

MAYERLY SÁNCHEZ
COFFEE FARMER

Mayerly Sánchez is a coffee farmer from the Paso Malo Village in El Tambo, Cauca. She started planting coca plants because she had no other financial resources to support her family. With the program's support in September 2019, Mayerly and her family decided to replace the coca plants on her property, formalize their land title and focus on growing coffee. Mayerly now markets her coffee to local customers through a women's coffee association that sells to specialty exporters. Using the first profits from the 2020 harvest, Mayerly and her family also bought their first head of cattle and have plans to increase their livestock in the near future.

"We started crop substitution last year, initially with half a hectare (1.23 acres); and in the second phase, we removed the same amount. This is how we decided to change our lives, our family and our community."

EMIRO BOLAÑOS
COMMUNITY LEADER

Emiro Bolaños is a community leader in the municipality of El Tambo in Cauca. For years he had grown coca in order to provide for his family, despite the risks of violence from armed groups and enforcement by the government. The opportunity to obtain a land title convinced him to join the crop substitution program and invest in coffee instead. He uprooted all the coca plants on his property–over 915 in total–and today farms 3,000 coffee plants, plus corn and beans. A land title has provided him with more than just a thriving, legal crop–he can now access credit and government subsidies that were previously unavailable to him. Emiro's ultimate goal is to have the economic freedom to travel and provide a successful, abundant life for his children.

"The neighbors around here did not believe that I had the title of the land, and several asked me if it was true. I said yes and I can now access credit in the Agricultural Bank, where interest rates are low and the title is the only requirement. I would not return to planting coca. If I have 2,000 or 3,000 well-cared for coffee plants, I'll have money and peace."

BUILDING PEACE IN CATATUMBO

Catatumbo, along the northeastern border with Venezuela, is the most violent and unstable region in Colombia due to the presence of multiple armed groups, criminal organizations and a lack of infrastructure and public services. The region is comprised of 11 municipalities in the department of Norte de Santander. It has the highest concentration of coca crop production in the country and a weak state presence. Most recently, Catatumbo has borne the brunt of the mass influx of refugees fleeing economic hardship in Venezuela.

To support the Colombian government's efforts to improve security in Catatumbo and meet the goals of its 2016 peace agreement with the Revolutionary Armed Forces of Colombia (FARC, for its Spanish acronym), the Foundation is prioritizing a single municipality, Tibú, by investing in the following areas:

1. **Building roads to improve market access.**
   In 2020, the Foundation made a first donation of $15.8 million to improve regional and tertiary roads in Catatumbo to support market access for legal crops grown by smallholder farmers. An additional $30 million in road improvements over the next decade are planned, pending the government's ability to achieve key performance targets with the first project.

2. **Implementing voluntary coca substitution projects.**
   We are hoping to replicate our past successes implementing coca crop substitution programs in Cauca and Nariño and bring that experience to a new program in Catatumbo, in partnership with Mercy Corps and the National Coffee Federation. To date, more than 1,000 farmers have successfully substituted their coca for legal crops like coffee. We are building on these partnerships and working to replicate this strategy in Catatumbo.

3. **Supporting development of private sector value chains for legal crops.**
   Over the next year, the Foundation will support cacao producers in Catatumbo to improve the quality and yield of their production, while improving connections to local and international markets.

4. **Helping smallholder farmers secure formal land ownership titles.**
   Many smallholder farmers in Colombia informally own their land but lack the legal title necessary to access financial services and make long-term investments in improving their land. With support from the Foundation, Mercy Corps is securing land titles and providing short-term food security assistance to 900 smallholder farmers in Catatumbo.

5. Strengthening the Colombian government's institutional presence.
Building on a longstanding partnership with IJM, the Foundation is exploring ways to work with local law enforcement and build on its capacity to improve citizen security.

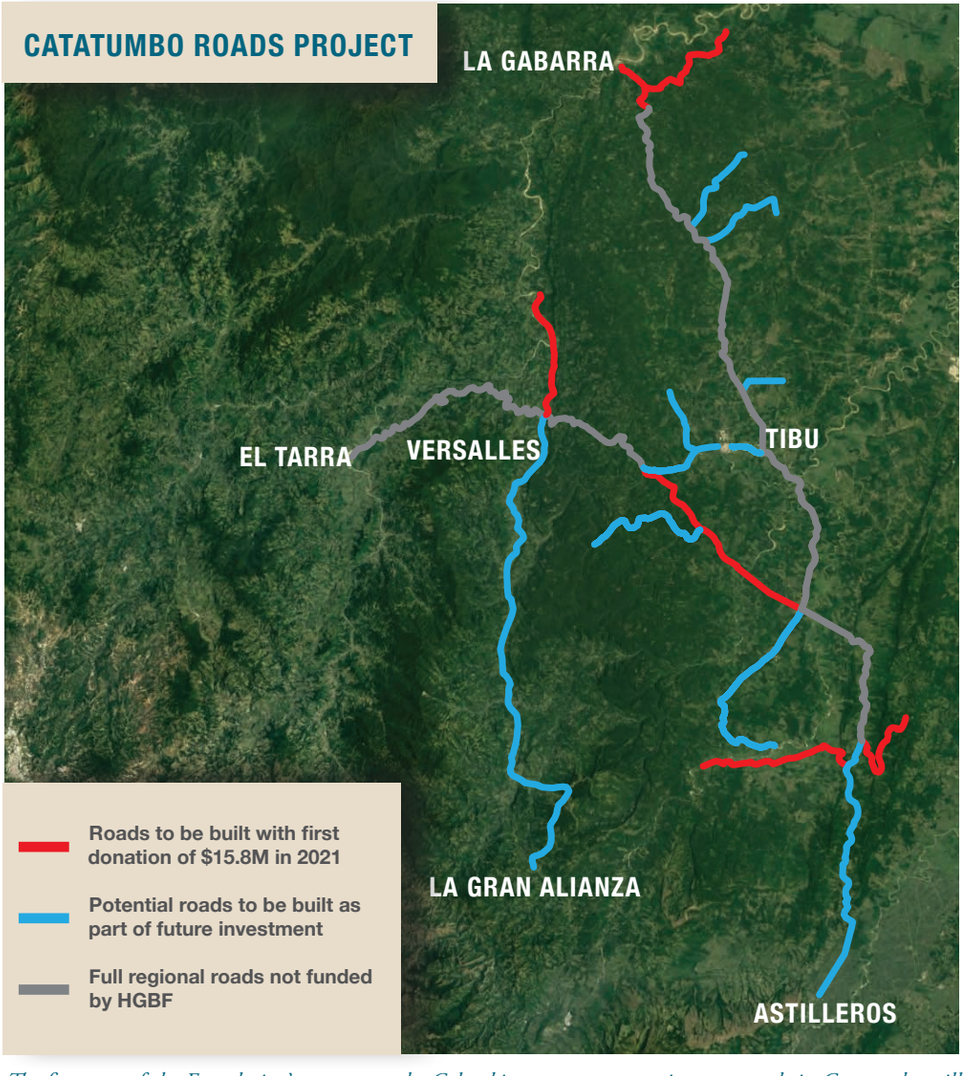
6. Clearing land mines.
To improve the safety conditions of communities in Catatumbo and assist humanitarian efforts in the region, the Foundation is investing an additional $1.4 million to support the Colombian government's demining activities specifically in Catatumbo.

The Foundation's land titling project in Tibú is already in progress as the Foundation continues to develop other projects that support peace. Through the World Food Programme (WFP), the Foundation is providing food and other assistance to more than 400 families from Tibú who were displaced by pervasive violence at the end of 2020. In addition, the Foundation will support WFP to structure productive agriculture projects that unite ex-FARC combatants and victims of the armed conflict to work together towards shared, long-lasting prosperity and community development. We hope to scale-up successful projects across a broader geographic area in the region.

These projects contribute to the Foundation's strategy to strengthen communities by fostering economic opportunity, mitigating conflict, improving citizen security and giving smallholder farmers a chance to build sustainable livelihoods. By investing in Catatumbo, the Foundation is making a commitment to support peace and development in Colombia.

Photo: 1st Battalion, Humanitarian Demining Engineers Brigade

After fifty years of internal conflict, Colombia struggles to clear anti-personnel mines despite ambitious targets set by the government. The Foundation is supporting these efforts with a grant to the military's Humanitarian Demining Brigade. With the Foundation's assistance, the Brigade has cleared mines from 212 of the affected municipalities to date. (Above) A team from the 4th Battalion, Humanitarian Demining Engineers Brigade demonstrates safety procedures to children at a school in Vistahermosa, Meta, in central Colombia.



The first year of the Foundation's support to the Colombian government to improve roads in Catatumbo will result in approximately 90 kilometers (55.9 miles) of roads to be built and improved, enabling hundreds of smallholder farmers in the region to gain access to markets for legal crop production. Construction of the first set of roads is scheduled to begin in Spring 2021 and will also bring hundreds of jobs to the region's unskilled laborers. If the national government fulfills its promise to improve this first group of roads in two years, the Foundation is committed to constructing over 200 additional kilometers of roads in the region at a total cost of $46 Million.


SHERIFF
DUI ENF

PUBLIC SAFETY

The vast majority of the support we provide to the local communities where we operate and have employees is through grants to improve public safety. We have chosen to focus our community grantmaking on public safety for two reasons: it keeps our local grantmaking in line with areas we understand rather than simply writing checks to local organizations we know little about, and it leverages the unique expertise of the Foundation's Chairman and CEO. These grants serve the dual purpose of ensuring our local community grantmaking is aligned with the Foundation's strategic priorities and that what we learn and pilot locally informs public safety needs and initiatives regionally, nationally and internationally.

Consistent with our philosophy of operating within our circle of competence and avoiding the approach of simply writing checks to local organizations, we target the majority of our community grantmaking within our mission-aligned support for Public Safety. We prioritized this program area several years ago, based on two factors: (1) our experiences working in the developing world and seeing how critically important safety, security and trust in the rule of law are to a healthy society; (2) the unique expertise the Foundation's Chairman and CEO has gained as a sworn law enforcement officer in Illinois and Arizona.

The Foundation's support for Public Safety has helped communities in numerous ways, including securing NARCAN to address drug overdoses; investing in treatment facilities and programs for people with substance use disorders; updating communications equipment to improve officer safety and emergency response; providing court advocacy services for children; training officers in better tactics; improving school safety by funding a school resource officer; and investing in unique infrastructure and advanced training techniques to improve the effectiveness and safety of first responders and the citizens they serve.

In Decatur, Illinois, where the Foundation is headquartered, we partnered with Crossing Healthcare to fund a pilot program in the county jail to address drug addiction to try and break the cycle of recidivism. Our investment in Crossing also provides continuity in treatment and housing when an inmate with substance abuse problems is released from the jail. We also established the Jerry J. Dawson Civic Leadership Institute with the Decatur Public School District to allow students the opportunity to better understand and prepare for job opportunities in the public sector, nursing, EMS and criminal justice.

Our infrastructure investments in communications in Cochise County, Arizona, where the Foundation has a research farm and ranch operations, came at a time when the Sheriff's office communications system was failing. Cochise County is the 38th largest county in the United States and shares more than 80 miles of border with Mexico. Communications is critical for public safety, officer safety, community protection, coordination with other law enforcement agencies and search and rescue missions.

> Our infrastructure investments in Macon County, Illinois, where our Foundation is headquartered, aim to improve local, state and regional law enforcement training at a time when national calls for improving police action are being defined as reducing funding for law enforcement rather than focusing on what is actually needed: **more funding and improved training.**

Over the last five years, we have put in place resources to improve law enforcement training on use of force, de-escalation, "suicide by cop," duty to intervene and duty to render aid. We have also provided support for Integrating Communications, Assessment, and Tactics (ICAT) training through the Police Executive Research Forum (PERF) so that agencies across the United States that do not have the funding for this training can receive it.

Cutting funding to law enforcement to divert resources to chronically underfunded social services is a false tradeoff. Communities need both, and a failure to underinvest in one is not solved by underinvesting in the other. Public safety is the backbone of well-functioning communities. Weakening a key component of our criminal justice system rather than making the effort to strengthen and improve upon it is counterproductive. In fact, it is critical to examine who is most impacted by insufficiently resourced law enforcement agencies. People with financial means who want to improve their public safety do not have to rely simply on publicly funded institutions–they can install alarms and lighting at their homes, construct fences, move to safer neighborhoods and hire private security. The people who suffer the most from criminal activity are the ones already living in communities with high crime rates and who have few alternatives beyond relying on their local police. It is not uncommon for the residents of poorer neighborhoods to demand more police protection–not less–and that is not incompatible with demanding fairer treatment, more accountability and better transparency from police.

A police officer holds immense power, including the power to end a human life. This means that police officers must be held to the highest standards of accountability. This standard starts at hiring: the best opportunity to identify and intervene with someone who should not be a police officer is at the training academy, yet this rarely occurs. Rigorous accountability then needs to continue when the officer is in-service, but it must be continuously accompanied by the appropriate amount and depth of training. It is easy to cut corners on training–it is easier to trim training budgets than fire officers when budgets are reduced. But this underinvestment gives the illusion of cost savings, when the reality is that agencies, officers and communities suffer far more over the long term than the short-term savings justify. The unique infrastructure and advanced training the Foundation has invested in produces better first responders and better outcomes for communities.

Organizations like PERF measure and track these improvements. An independent analysis by the University of Cincinnati measuring the effectiveness of PERF's ICAT training on the Louisville, Kentucky, police department found 28 percent fewer use-of-force incidents, 26 percent fewer injuries to citizens and 36 percent fewer injuries to officers over the course of a year post-training as compared to average pre-training numbers in the decade prior. Our Foundation's Chairman and CEO has seen these post-training improvements first-hand as Sheriff.

The Macon County Law Enforcement Training Center (MCLETC) uses state-of-the-art technology to train new police recruits and to provide on-going, in-service training. The VirTra simulator creates intense simulations of real-life scenarios, like a school shooter situation seen here, in which officers must give commands and are assessed on their reactions, communication skills and judgment.

The people our law enforcement and first responders serve are correct in demanding high standards of performance and accountability. What is missing from that call for accountability is recognition that to achieve it requires more investment in law enforcement not less. For example, training requires agencies have more officers, not fewer. Training takes officers out of service, meaning more are required to backfill those positions. Extensive and continuous training is required because actions by law enforcement officers are made in split seconds. Officers are faced with a multitude of different circumstances, and these quick judgment-based decisions can result in errors and sometimes the unintended loss of life. Police officers have responsibilities that range from noneventful to life-threatening. You may start a shift with a report and by mid-day find yourself trying to talk a person down from jumping off a bridge, or getting shot at while on a traffic stop, one of the most dangerous activities for an officer. Given the circumstances, errors will occur, but when they do, those actions must be accounted for through agency discipline or, when illegal, prosecution. Improper or illegal activity by police officers must be fully adjudicated and take into account the officer's training, actions, agency policy and applicable case law.

It is important to recognize that improving police performance and accountability is not just about more training; it's also about better and targeted training. All human beings are prone to implicit bias which can affect decision-making. Highly skilled and well-trained police officers can still develop subconscious biases based on their daily on-duty experiences. Some of this implicit bias can be mitigated by increasing the use of scenario-based training.

One assumption that seems foundational to many reform efforts is the idea that you can change what police do and the calls they respond to and still improve public safety. The only individuals with a public safety mandate who are on the street 24/7 are police officers. When a call comes into 911, an officer is likely already in the proximity of the emergency. There is no way to know in advance if the call will be dangerous, if force will be required, if medical help is needed, if a person is suicidal or suffering from mental health issues. In 1955, 75 percent of individuals with mental health issues were treated at in-patient state hospitals; by 1977, that number was only seven percent. Treatment protocols for mental illness have evolved away from mostly in-patient to mostly out-patient, but communities have significantly underinvested in those outpatient resources. Consequently, mental health-related calls to 911 have risen well over 200 percent since the late 1990s. These calls now represent an estimated 20 percent of all police calls. Without significant new investment in expensive and scarce mental health personnel, which most communities cannot afford or find, police will continue to deal with every call imaginable–the better trained an officer is, the better they can respond to these different circumstances.

In Macon County, police officers throughout the year would have benefited from access to a crisis response mental health team to support their 911 calls. Yet counties like Macon simply cannot afford to fund those services even during regular business hours, much less after-hours, when the need is greatest; and you cannot take away enough funding from the county's already inadequate law enforcement budgets to provide these resources. The Foundation is currently reviewing how we can assist in our county with developing a crisis response team to support law enforcement.

PERF used the MCLETC tactical village to train officers how to better deal with suicidal individuals who want cops to kill them. In 2019, PERF convened a group of experts at MCLETC to develop scenario-based training videos and guidelines for "suicide by cop" situations.

Photo courtesy of PERF

In 2019, PERF convened a meeting of experts from across the country, as well as the United Kingdom and Canada, to examine and discuss patrol K-9 handling policies. It is imperative that law enforcement agencies adopt consistent K-9 policies that protect citizens and hold K-9 handlers accountable. Insight from this meeting informed PERF's publication, Guidance on Policies and Practices of Patrol Canines.

Many of these after-hours calls are also among the most dangerous because of the many unknowns when responding to an individual suffering a mental health or addiction crisis in the middle of the night. The person responding is only the beginning of an involved process. Short-term, medium-term and long-term care personnel and facilities are needed. In our county, the closest facility with long-term mental health beds available to us and 45 other counties is an hour away and only has 110 beds. The restrictions for admissions are so difficult that it is virtually impossible to get someone transferred there from our county jail. Originally, when these types of facilities closed in our county due to lack of funding, the responsibility was delegated to the local hospitals. Now, in many areas these hospitals cannot afford to operate this type of unit, and they cannot accept the liability. As a result, the services are either inadequate or nonexistent.

This part of the health care system in many communities like ours has already been defunded, and reinvesting in it will take a significant investment. We will need a shift in priorities to accomplish meaningful change. That is in part why simply transferring funding from law enforcement to underfunded social service agencies will not solve our public safety challenges and improve accountability. We believe increased and better training for first responders and building capacity within social service agencies to address systemic issues that fuel criminal behavior are both critical to providing a safer community for all. We hope the Foundation's grant funding in Macon County can serve as a model to demonstrate for other communities the value of such investments. We recognize such investments do not solve all of the problems, but they are a place to start.


JUMBO
X-LARGE
LARGE
MEDIUM
CHOICE

CLOSING THOUGHTS

BY HOWARD G. BUFFETT

Over the last decade, we made a decision to concentrate the Foundation's resources on a limited number of program areas (food security, conflict mitigation and public safety) across a few key geographies (primarily Rwanda, DRC, El Salvador, Mexico, Colombia and the United States) in order to increase our impact through focus. When warranted, we will on occasion revisit and add to those priorities. We had planned to do so in a big way in 2020, as we evaluated the increasing grantmaking and expertise we have developed over the last decade on the issue of human trafficking in the United States. We felt we had reached a point where the issue warranted further, significant investment by the Foundation and therefore its own program area, "combatting human trafficking." However, the coronavirus pandemic affected our ability to move forward in a meaningful way. While we did make sufficient investments in 2020 to create a new program area dedicated to combatting human trafficking, we expect to continue to develop a much larger, community-based strategy for action in 2021 and thought it worth previewing our thinking here.

WHY HUMAN TRAFFICKING

A key part of our mission statement is "to catalyze transformational change to improve the standard of living and quality of life, *particularly for the world's most impoverished and marginalized populations*." Victims of human trafficking are almost universally marginalized, and typically it is their inability to access economic opportunities that make them vulnerable to human trafficking.

Given our Foundation's decades of work in small-scale agriculture, it was natural for us to look at the issue of labor trafficking and work to combat it. For many years, we did that work by trying to improve migrant labor recruitment options, funding several organizations working to professionalize and enhance the standards and treatment of migrant labor coming from Mexico and Central America into the United States to work in agriculture. Most recently, we have had great success funding the creation of CIERTO, a nonprofit organization that has developed a "clean recruitment" model to support and protect workers' rights and meet the corporate social responsibility requirements of U.S. employers that want to ensure they are not perpetuating exploitative practices by using unethical recruiters. We also funded research and education campaigns to raise awareness about the dependency of U.S. agriculture on migrant labor in all 50 states, and the need to improve legal labor recruitment systems like H-2A in order to discourage the use of alternative sources of labor recruitment that too often exploit workers. After years of working to improve the system of legal labor recruitment, beginning in 2015, we began looking at ways to address abuses in the system and specifically at ways we could support efforts to detect, investigate, prosecute and deter labor trafficking in agriculture.

COMBATTING LABOR TRAFFICKING

Labor trafficking occurs all over the world, to people of all ages and in all sectors of the economy. It is often hidden in plain sight, and most victims never receive justice. Labor-trafficking victims can be construction workers, restaurant staff, farm workers or housekeepers, yet the agriculture industry is one of the largest sectors for labor trafficking in the United States.[1] Detection by law enforcement is rare, and few cases are prosecuted. There is simply low awareness of the issue, very limited data on the prevalence and it is not a law enforcement priority in this country.

Labor trafficking takes on many forms. Employers can retain their victims' passports, paycheck or personal belongings as a way of controlling their movements. Victims may be forced to work long hours, live in unacceptable conditions and receive little to no compensation for their work. Employers may limit outside communications by taking cell phones away or restricting contacts outside the workplace.

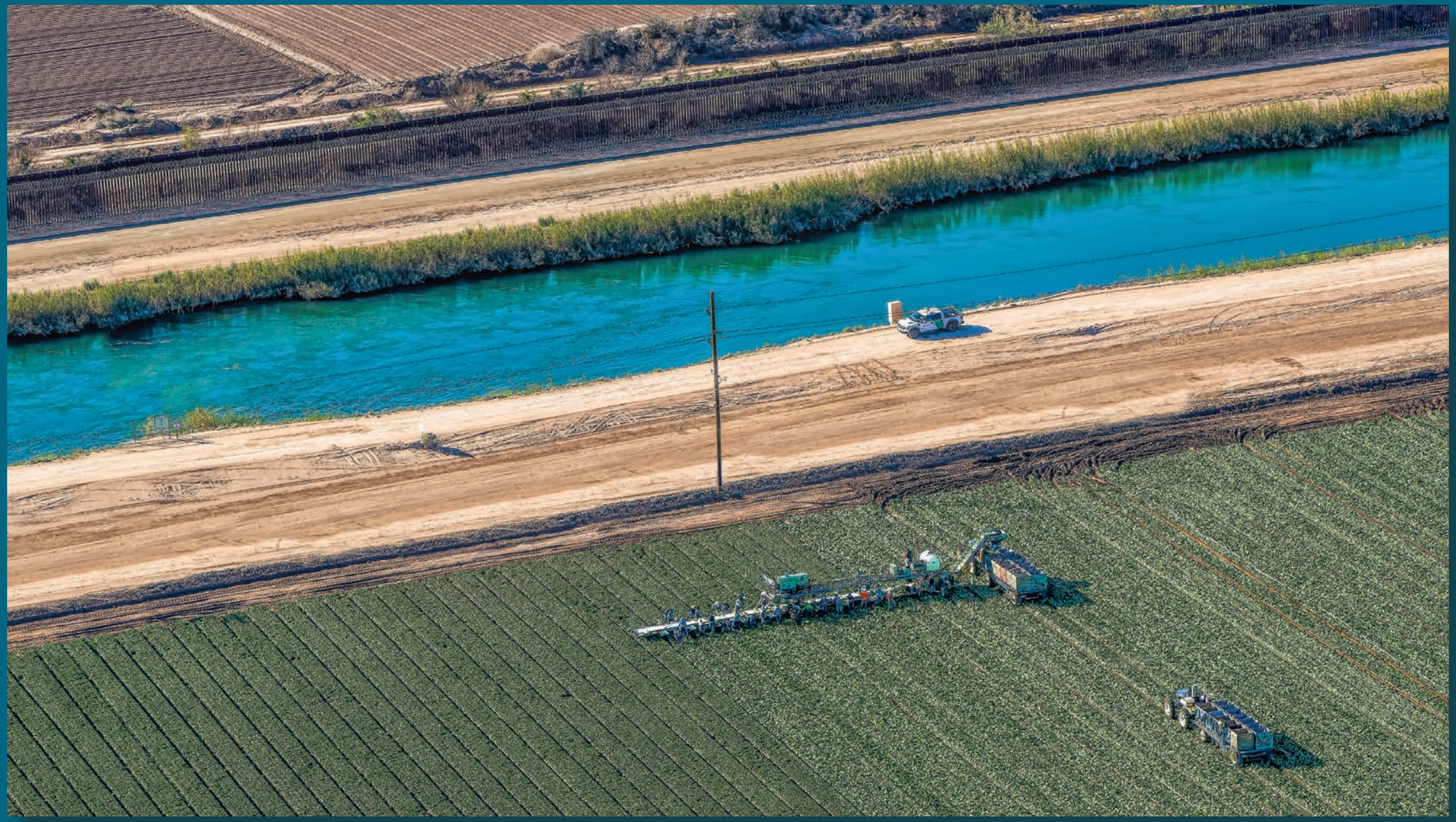
These conditions impact entire families, often keeping children out of school and affecting their physical and mental development. Migrant forced labor cases are especially difficult to detect, as victims are unlikely to come forward and risk exposing themselves to local law enforcement for fear of deportation.

> **Combatting forced labor trafficking directly aligns with the Foundation's core interests in food security, conflict mitigation and public safety**. Beginning in 2016, following a smaller effort with the United Farm Workers to detect and prosecute cases of labor trafficking, the Foundation decided to increase its engagement on this issue by piloting a model to build capacity in law enforcement in targeted communities.

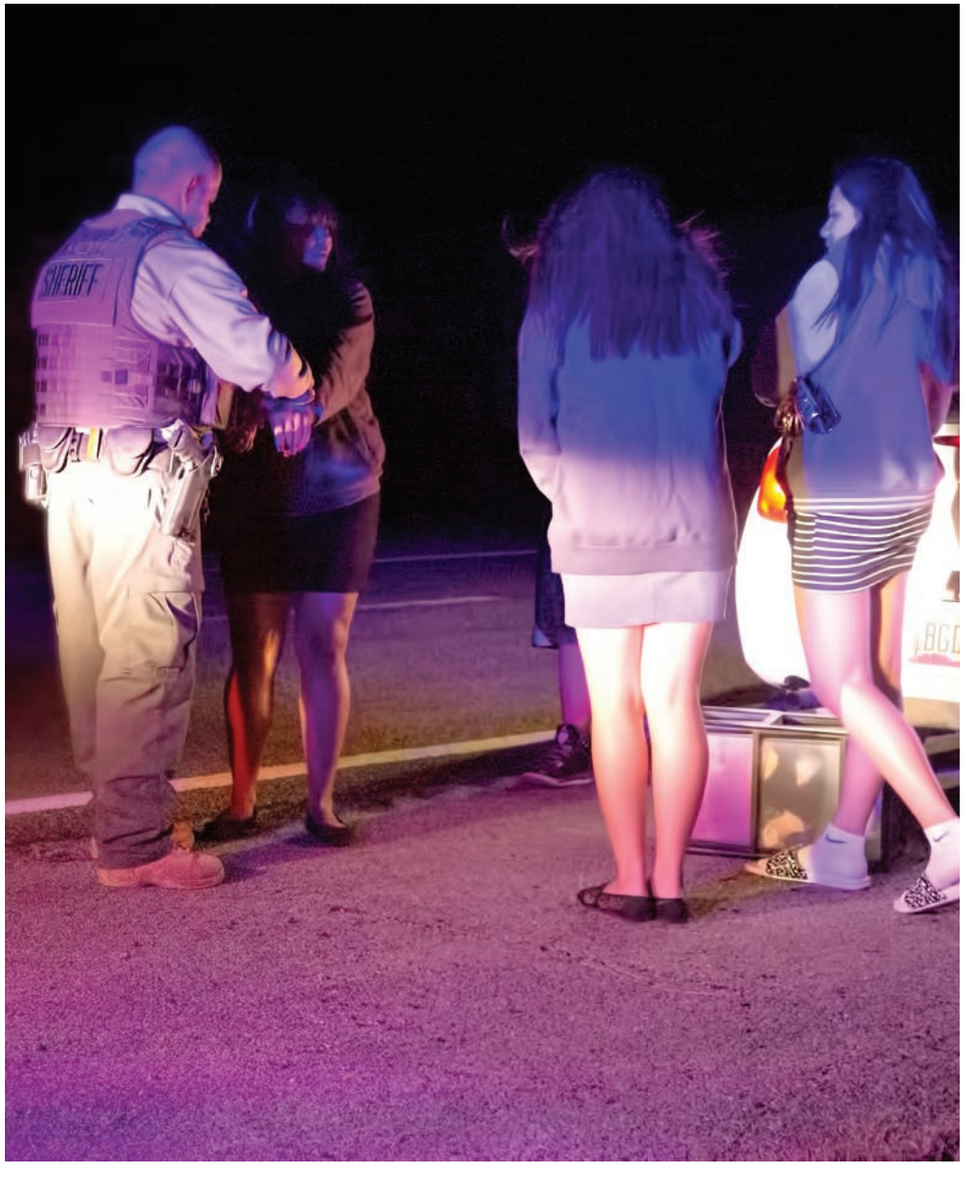
We partnered with the McCain Institute to develop the Buffett-McCain Institute to Combat Human Trafficking in Texas. Texas was chosen for the pilot after a needs assessment found that the state had a wide gap between the likely scale of agricultural labor trafficking taking place and the systems currently in place to address it. The pilot area included Hidalgo County.

The Foundation's public safety grantmaking expertise played a critical role in developing this Initiative in a unique way, focusing on educating and training law enforcement, employers, community health providers and workers to detect and address labor trafficking in their communities. Through valuable, multi-disciplinary partnerships with organizations like Texas Rio Grande Legal Aid and the Hidalgo County District Attorney's Office in Texas, the Initiative has increased its effectiveness and outreach. These partnerships make it possible for the Initiative to work directly in communities with local law enforcement and legal professionals to detect cases of human trafficking, investigate them and bring traffickers to justice.

A key region our pilot Initiative has focused on is the Rio Grande Valley in Texas. Early in 2019, thanks to the Foundation's funding, the Hidalgo County District Attorney's office created a team specifically dedicated to investigating and prosecuting human trafficking cases. The task force worked closely with the Initiative to identify victims and refer them to agencies that can provide appropriate legal aid and social services. Counties in the Texas Panhandle region have also begun to organize similar task forces.



Over 350,000 young people enter the workforce every year in the Northern Triangle countries of Central America (Honduras, Guatemala and El Salvador), but the formal economy only produces 35,000 jobs annually.[2] These economic and demographic pressures create instability within these countries and influence migration patterns to the United States. At the same time, many industries in the United States, particularly the agriculture sector, depend on migrant labor. Current guest worker visa programs fall short of the demand, and as a result, many workers cross unlawfully and are employed illegally.



Law enforcement officers don't always have adequate training to recognize when people are being trafficked. Even in confirmed cases, it can be difficult to prosecute the traffickers who are exploiting vulnerable victims for their own profit.

IMPACTING LABOR TRAFFICKING IN TEXAS

We now have three years of concentrated effort in Texas to address labor trafficking. In addition to doing field outreach to over 11,800 farmworkers, our Initiative has trained more than 135 of the state's law enforcement officers on how to identify cases of labor trafficking.

The Hidalgo County unit has already secured two labor trafficking convictions and is in the process of prosecuting three other cases. These prosecutions involved 17 victims and 21 arrests. The unit's investigator has also identified 15 other cases that are currently under investigation.

The Initiative's direct support to local legal service providers has also helped 40 labor trafficking victims from 10 different countries receive pro-bono legal representation for civil and criminal lawsuits against their traffickers.

Suppliers and wholesale purchasers of agricultural goods are key stakeholders in efforts to prevent labor trafficking, but we are still determining the best way to work with these important players. We are hoping to someday align our earlier support to CIERTO to engage with growers and wholesale purchasers.

We expect one big impact of the coronavirus pandemic in 2020 to be a shift in priorities by law enforcement to focus on emergency response and essential services, and more limited ability by our NGO partners to deploy field-based resources who can work directly with farmworkers, creating more risk of worker exploitation.

CREATING A NATIONWIDE INITIATIVE TO COMBAT HUMAN TRAFFICKING

In 2018, the Foundation funded a year-long study to look at ways to build a comprehensive approach to address human and labor trafficking. The results of that year-long effort form the basis for a strategic plan that incorporates the lessons learned from the labor trafficking Texas pilot while expanding to include all U.S.-based human trafficking through a targeted, community-based approach.

The study incorporated a total of 385 interviews in 17 cities and 15 surrounding rural areas with U.S. federal, state, county and local law enforcement, prosecutors, members of the judicial branch (i.e., prosecutors, judges, public defenders and probation officers), government social service providers and NGOs.

The study produced five major findings:

1. **There is inconsistent coordination and collaboration across the full human trafficking community.**
   The justice sector, victim service providers and the broader anti-trafficking community need to better work together to increase the number of investigations, prosecutions and convictions, which will improve the outcome for victims and communities.

2. **There are few dedicated personnel to address the complexity of human trafficking.**
   Human trafficking investigations tend to take longer to investigate and are more complex than most other criminal investigations. Law enforcement and prosecutors frequently do not have dedicated personnel and resources to support these intensive investigations, and prosecutors lack specialized knowledge on working with human trafficking victims.

3. **There are limited opportunities for advanced training on a range of human trafficking topics.**
   The justice sector, especially those investigating and prosecuting human trafficking cases, do not have access to current, advanced training and resources they need to combat human trafficking. There are many basic or introductory trainings, primarily focusing on sex trafficking, available to members of the justice sector who are proactive in identifying such opportunities (e.g., conferences, seminars, classroom training courses, webinars, etc.). However, this training is not mandatory for most law enforcement and prosecutorial offices. All uniformed officers, investigators and prosecutors working on crimes related to human trafficking (i.e., narcotics, gangs, sexual assault and domestic violence) need basic awareness training to recognize and know what to do if they come across human trafficking. Advanced training, which goes beyond basic awareness and immerses participants in scenarios and in-depth discussion, is practically unavailable to human trafficking investigators and prosecutors. Scenario-based training, structured on-the-job training and courses focused on key and emerging issues and techniques are essential to keep pace with the growth of this evolving crime. In addition, advanced training on labor trafficking is necessary, as this is harder to recognize and prosecute.

4. **To effectively investigate and successfully prosecute human trafficking cases, law enforcement must gain the support of victim service providers.**
   Investigators and prosecutors cannot succeed without victim cooperation. Therefore, a broad array of victim services during investigation and prosecution of cases is essential (e.g., mental health and trauma counseling, housing, substance abuse treatment, healthcare, job training, etc.). Without these services, victims are unable to effectively cooperate with investigators in providing victim statements or assist prosecutors by serving as witnesses against perpetrators. Since re-victimization is common, it is critical to put victims on a permanent path to recovery as quickly as possible.

5. **There is limited analytical support to identify and disseminate information about human trafficking trends and networks.**
   Multiple data gaps prevent law enforcement organizations from fully understanding the scope of human trafficking within their jurisdiction and across other jurisdictions. This also leads to underestimating the size of the problem and a narrow view of human trafficking as a crime, ultimately limiting the resources and time that jurisdictions invest in combatting it. Additionally, this lack of intelligence also prevents law enforcement from proactively identifying and investigating human trafficking and, more importantly, impedes the ability of the nation to take a comprehensive approach in dismantling the networks that coordinate this crime across jurisdictions.

Based on these findings, the Foundation will work to create a new program area to combat human trafficking and scale our engagement on this issue. We had hoped to begin that work in 2020, but we will instead look to 2021. The Foundation's approach to combatting human trafficking will be guided by a mission to strengthen community capacity to arrest and prosecute human traffickers, dismantle their networks and support victims through the legal process. Our grantmaking will target investments in key communities to bring in advanced training, prevention initiatives and build a nationwide collaboration network. Our data-informed and coordinated approach will work to unite and amplify the efforts of law enforcement, victim service providers and community members, enabling transformative results over time. We look forward to sharing those results in the years to come.

1 https://humantraffickinghotline.org/states
2 https://fas.org/sgp/crs/row/IF11151.pdf

THE HOWARD G. BUFFETT FOUNDATION DOES NOT ACCEPT UNSOLICITED REQUESTS.

Printed on 30% post-consumer
recycled paper with agri-based ink.

THE HOWARD G.
BUFFETT
FOUNDATION