

THE HOWARD G. BUFFETT FOUNDATION

2017 ANNUAL REPORT

LIFE CAN GET BETTER. CHALLENGES CAN BE OVERCOME. DETERMINATION AND HARD WORK CAN MAKE A DIFFERENCE. -HOWARD G. BUFFETT

STATEMENT OF PURPOSE





This Normandy fence of crisscrossed metal posts in Arizona marks the U.S. border with Mexico and is designed to deter vehicle traffic. Normandy fencing is common in the more rural parts of Cochise County and Santa Cruz County in southeastern Arizona as depicted here. This particular fence is supplemented by taller barbed wire fencing, but most Normandy fences are the only border fencing found in a given area and are readily traversed by foot traffic coming into the U.S. from Mexico.

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 three main areas:

- 1. Food Security
- 2. Conflict Mitigation
- 3. 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 advocacy 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 remains a key barrier to achieving global food security and economic prosperity. We seek out investments to mitigate conflict in two ways: through opportunities to bring an end to active conflict or improve the conditions that fuel conflict; and through opportunities to support communities that have been affected by 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.

Public safety is a strategic priority that influences our community grantmaking in Illinois and Arizona 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 where resources are scarce for rural areas.

The Foundation continues 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

Howard G. Buffett, Chairman and CEOErin M. MorganDevon G. Buffett, SecretaryMichael D. WalterTrisha A. Cook, TreasurerChelsea M. ZillmerHoward W. BuffettHoward W. Buffett

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LETTER FROM THE CHAIRMAN



Our Foundation marked an important milestone in 2017: fulfilling over \$1 billion in philanthropic contributions since we began making grants in 2000. It's a milestone that bears reflection about what we have accomplished, what we have learned and, most importantly, how those accomplishments and lessons learned are shaping our future planning. It's also important to acknowledge that this milestone is an achievement set in motion by my Dad, whose life's work has given my brother, my sister and me the opportunity and the freedom to create our respective foundations and to work towards changing peoples' lives for the better. It is a great privilege and a great responsibility, and I always remember his initial advice that we should take risks, not be afraid to fail and we should swing for the homeruns, not for the highest batting average.

SMALL VICTORIES, HARD LESSONS

We don't spend much time at our Foundation celebrating past victories. We spend most of our time focused on the things that didn't work because we learn more from our failures than our successes. But almost 20 years and more than \$1.1 billion of grantmaking later, I can point to several themes that inform our future grantmaking and would therefore be considered "successes" using that definition. First, we have consistently tried to be a Foundation that invests where others will not because the risks are too high. We look for those voids because of my Dad's initial advice and because we believe they present more opportunities to innovate and pilot new ideas-more opportunities to hit homeruns. We have always been impressed by the resilience of the people we meet in places that have the least and suffer the most. These tend to be countries prone to conflict, in the midst of conflict or emerging from conflict, where poverty and lack of development are secondary to basic survival. I am especially proud of our 20-year commitment to conservation and mitigating human conflict in places like South Sudan, Liberia, Sierra Leone, Central Africa Republic (CAR), Sudan, Tanzania, Uganda, Burundi, Democratic Republic of the Congo (DRC) and Rwanda (Africa's Great Lakes region).

Our grantmaking has evolved from being primarily conservation-based support in our early years of grantmaking to more recently humanitarian support and investing in long-term development, including agricultural development, infrastructure and economic development. I remember being in the jungles of CAR to see some of the work we were doing to rescue victims of Joseph Kony's Lord's Resistance Army and support the dismantling of his organization. One of our partners made a comment that captured how our approach has evolved in the context of conflict: "We just got tired of putting band-aids on bullet holes. We also want to stop the bullets."



"We just got tired of putting band-aids on bullet holes. We also want to stop the bullets." A soldier stands on a dirt runway in CAR. Conflict is a destabilizing force in many countries like CAR in Africa's Great Lakes region, undermining development and increasing human suffering for millions of people. We believe investment in development cannot wait until the bullets stop; in some places, investment in development is the only way to interrupt and end conflict.

Second, we are proud of our education and advocacy campaigns, especially in the areas of global hunger (40 *Chances: Finding Hope in a Hungry World*); domestic hunger (our support for Feeding America's annual hunger study and Map the Meal Gap); conservation agriculture (Harvesting the Potential and Brown Revolution); and border security (*Our 50-State Border Crisis*). It took a number of years of project-based grantmaking for us to recognize that scalability was not something our Foundation could fund and create; instead, these advocacy and education tools help promote the best ideas and approaches in order to influence other private and public stakeholders to help create that scalability.

Third, we have made some big bets that are worth celebrating. Not because they are successful-we won't be able to determine the success or failure for many years to come—but because we have taken big risks to try big, bold ideas. Our biggest bets include funding four hydroelectric dams in the midst of active conflict in eastern DRC; working with 2.000 farmers in Rwanda to construct 63 center pivot irrigation systems and learning how to successfully improve production within a cooperative model; building a practical agriculture training institute for conservationbased agriculture in Rwanda that will support its national priorities for food security and development; funding the creation of the No-Till Center for Conservation Agriculture in Ghana to address Africa's degraded soils; partnering with The International Maize and Wheat Improvement Center (CIMMYT) in South Africa to produce and distribute improved varieties of seed across the continent; providing the start-up funding for the World Food Programme's Purchase for Progress local procurement pilot initiative, and funding its expansion to Central America and postconflict countries in Africa; developing a Peace Center in eastern DRC to give Congolese a way to engage with their government through dialogue; and supporting the peace process in Colombia, to ensure the hard-won peace that took 50 years to achieve doesn't disintegrate; and more recently, engaging in citizen security and violence prevention work in El Salvador based on our understanding of how years of prior investment are being undermined by violence and the absence of the rule of law.



Colombia's rural mountains contributed to the Revolutionary Armed Forces of Colombia (FARC)'s ability to wage war for 50 years. The FARC financed its efforts through extortion, kidnappings and taxing illicit coca (cocaine) production that was then distributed by drug cartels. The FARC relied on guerrilla warfare tactics, destroying critical government infrastructure such as oil and water pipelines and heavily land-mining rural communities under their control. Today, FARC ex-combatants collaborate with the Colombian Army's humanitarian demining efforts.





In December 2015, at the invitation of the government of Uganda, several Foundation representatives visited a camp housing thousands of former M23 combatants from the DRC. Foundation representatives held meetings in Madrid, Entebbe, Kinshasa and Kigali over several months as part of a concerted but ultimately unsuccessful effort to support implementation of the December 2013 peace agreement between the Congolese government and the former M23 rebel group.

Within this report, you will see retrospectives on two of our longer-range "big bets": our 10-year commitment to the Global Water Initiative (which technically concluded in 2017) and how those lessons inform ongoing efforts in Central America in partnership with Catholic Relief Services (CRS) through our Water-Smart Agriculture and the Agriculture Landscape Restoration Initiatives; and reflections on our 20-year commitment to conservation and development in Africa's Great Lakes region. We began working towards concluding our work in eastern DRC several years ago, and we expect to share more insights on those efforts in next year's Annual Report.

LOOKING AHEAD

In our first year of grantmaking in 2000, 90 percent of the \$1 million in grants we made went to support conservation, with 85 percent of those dollars going to efforts in the U.S. In 2017, 55 percent of the \$171 million in grants we made went to support conflict mitigation, 32 percent to food security, 10 percent to public safety, with the balance supporting local priorities. Two-thirds of our 2017 grantmaking was to support our work outside of the U.S., primarily in Africa, Central America and Colombia, with the balance going to U.S. efforts. Over that same period of time, our individual grants have increased and become more consolidated among a shorter list of strategic implementing partners. This shift has been deliberate, and we expect to see more consolidation of our efforts in the future on several fronts. We will do more work in Central America's Northern Triangle countries (El Salvador, Guatemala, Honduras) and Colombia, especially as we complete our legacy investments in Africa over the next few years, including the significant, and we believe catalytic, role we have played in eastern DRC and Rwanda.

We will continue to look for "big bets" wherever we work, but particularly in Colombia and El Salvador, where we see unique opportunities to focus our resources and build on what we have learned from two decades of experiences in the context of conflict, and on post-conflict and agricultural development. In Colombia, we are working closely with the government to do what we tried but were never successful at in Africa: supporting the really difficult work of implementing a peace agreement. We have seen time and again, but especially from our work in eastern DRC, that the really hard work starts after a conflict concludes. In 2015, the governments of the DRC, Uganda and Rwanda approached us to help support implementation of the peace agreement that the DRC had signed to end the conflict with the M23 in late 2013. We agreed because we knew it was essential to avoiding future conflict. It became clear that the DRC government was not fully committed to its own agreement.

LETTER FROM THE CHAIRMAN

This has been one of my biggest disappointments over the course of my time managing our Foundation.

We see a very different attitude in Colombia, and we hope our support for humanitarian demining and our planned future support for coca crop substitution will assist the Colombian government's attempts to secure and develop Colombia's rural areas and rid them of the criminal gangs and Mexican cartels that continue to be funded through the production and distribution of illegal drugs.

In El Salvador, we continue to do work at scale within the country and regionally on conservation-based agricultural development. However, we have expanded our portfolio to include citizen security, as the gang violence in that country increasingly affects our work in rural areas. The violence has become so pervasive that we cannot ignore it.

We see our Foundation able to play a unique role in addressing gang violence because of our experience in the U.S. working with law enforcement and our decadelong work on forced migration-related issues in Central America, Mexico and the U.S. The nature of migration from Central America has changed significantly over the last decade. Where once we saw primarily economic migrants coming to the U.S. for jobs and a better economic future for their families, today we increasingly see men, women and children making the dangerous journey from Central America to the U.S. out of fear due to the increasing violence in their home countries.

We are in the process of defining specific resource gaps our Foundation can fill that will address the impunity that undermines El Salvador's justice system. You will read in this year's report about some early, strategic and symbolic grants we are making in this area. Eventually, we would like to support communities to reduce gang involvement and rehabilitate individuals trying to leave gang life. The U.S. government's sanctions on the MS-13 gang—the most prevalent gang in El Salvador—make that type of work virtually impossible to pursue. We will continue to explore avenues that can make a difference in El Salvador on this front, in part because the effects of gang violence in El Salvador have such negative consequences for communities in the U.S. as well.

FINAL REFLECTIONS

In September 2017 I accepted an appointment to serve as Sheriff of Macon County, Illinois. This decision came after five years of increasing involvement in law enforcement in Illinois and Arizona, and thousands of hours of experience in the field both as a volunteer for the Macon County Sheriff's Office and the Cochise County Sheriff's Office, and serving as Undersheriff in Macon County. However, that experience did not carry with it either the responsibilities or the types of decisions that I face as Sheriff. I never imagined that I would regularly rush to the scenes of overdoses or try to deescalate a situation with an individual who had barricaded himself from law enforcement. I see firsthand the split-second decisions that my officers regularly make that can have life and death consequences. I see domestic abuse, recovering addicts who relapse, jail inmates who repeatedly reoffend and too often the complete disregard for human life. This experience will inform and shape our future work in philanthropy as my past experiences have done.

In anticipating the possibility of this 15-month commitment, our Foundation laid the groundwork throughout 2017 for our work in 2018. I view this appointment as part of the field work I do as our Foundation Chairman and CEO and you will find my reflections on how it has informed our grantmaking and in turn how my work for the Foundation has shaped me as a sheriff in this year's "Closing Thoughts" section. I suspect I will have more to share next year when my appointment ends in November 2018. Until then, I consider the experience a front-seat education on a wide range of social and criminal issues we are grappling with in communities across this country and in other countries where we work, and it has allowed me to develop relationships with partners on the ground in countries outside of the U.S. in ways I could not have anticipated. It has in my mind proven invaluable to understanding some of the challenges countries like Colombia and El Salvador face where the form of conflict is driven more by criminal activities and lack of public safety than by the militia-led conflict context we have worked in throughout Africa. The shift in geographic emphasis as measured by the percentage of funds we will invest in Central America and Colombia versus Africa marks a new chapter in the Foundation's work, even as we write the final chapters on our work in Africa. I am optimistic that we have never been better prepared to take on these new challenges, and most importantly, we have never been more ready to swing for the homeruns.

Howard G. Buffett

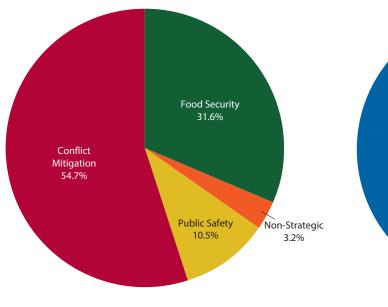


In September of 2017, Howard G. Buffett was sworn in as Sheriff of Macon County, Illinois, to fulfill a 15-month appointment. Serving as the top law enforcement officer in the county has been an intense and invaluable learning experience as our Foundation focuses on the issues created in countries—including the United States—when rule of law is absent or not properly enforced.

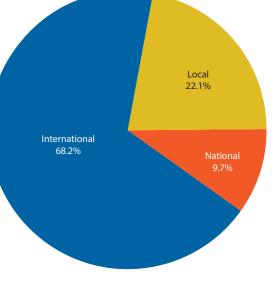
FINANCIALS



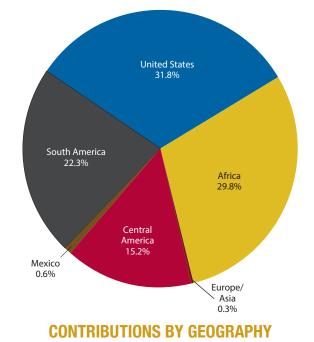
2017 CONTRIBUTIONS

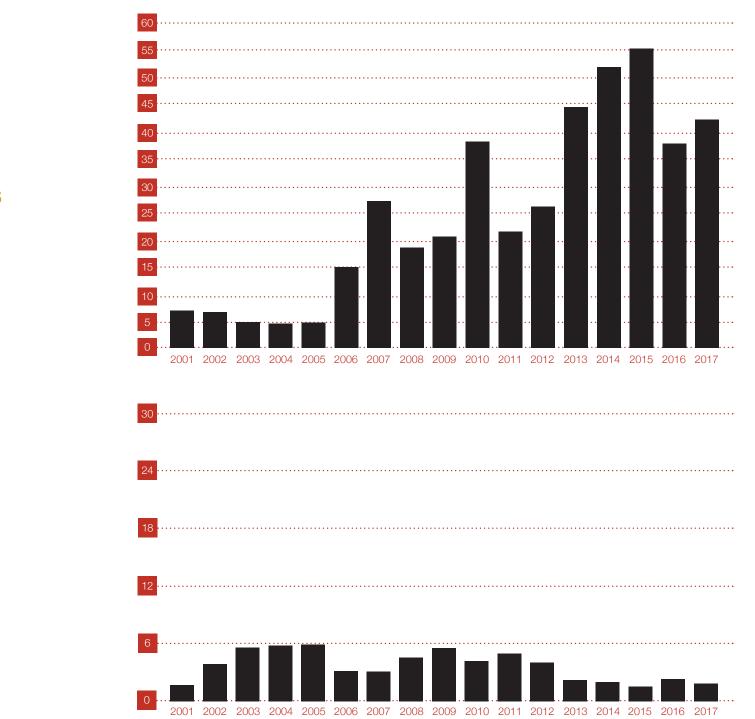


CONTRIBUTIONS BY CATEGORY



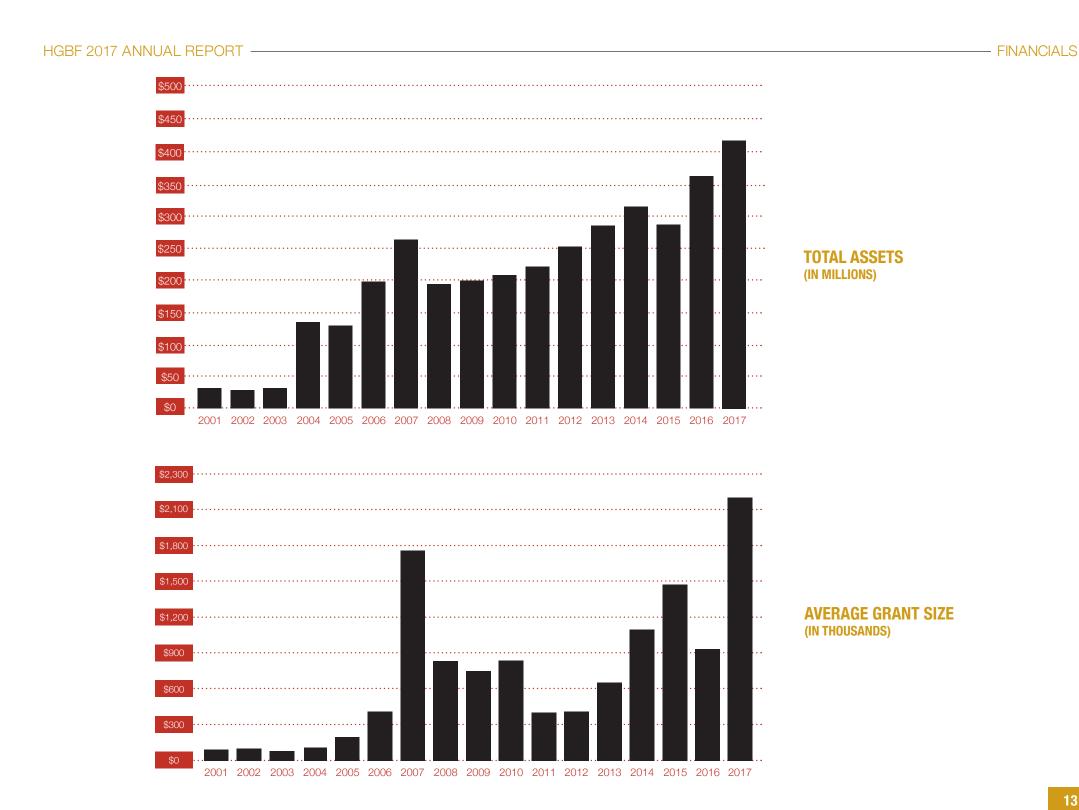
CONTRIBUTIONS BY DESTINATION

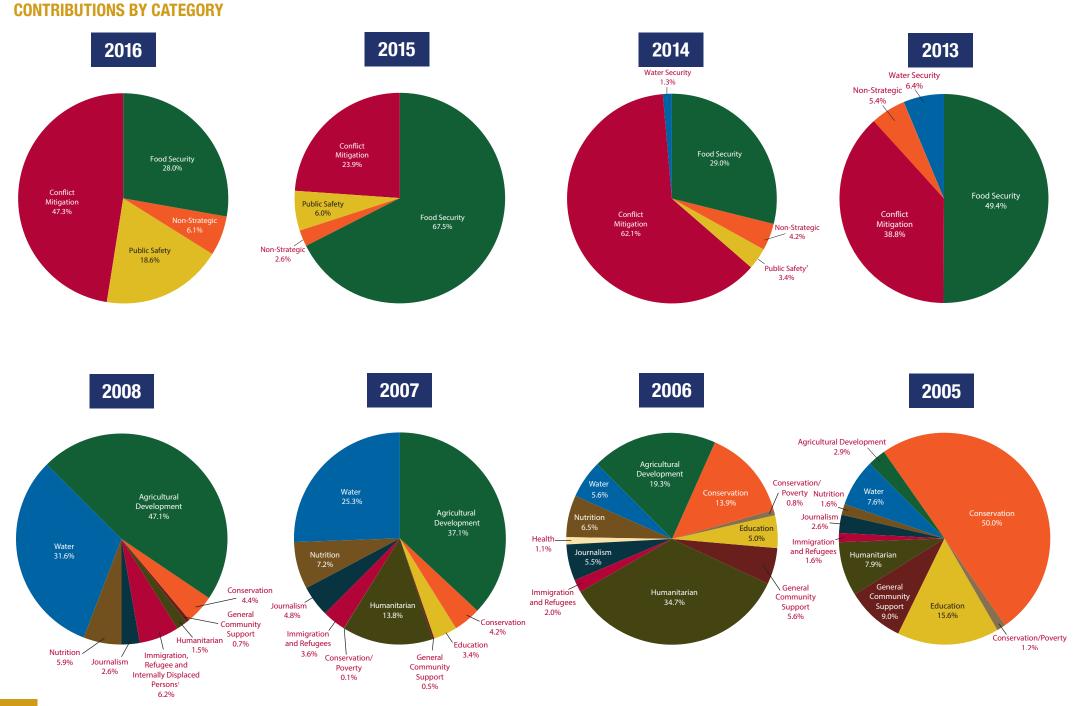




QUALIFYING DISTRIBUTIONS (AS PERCENT OF ASSETS)

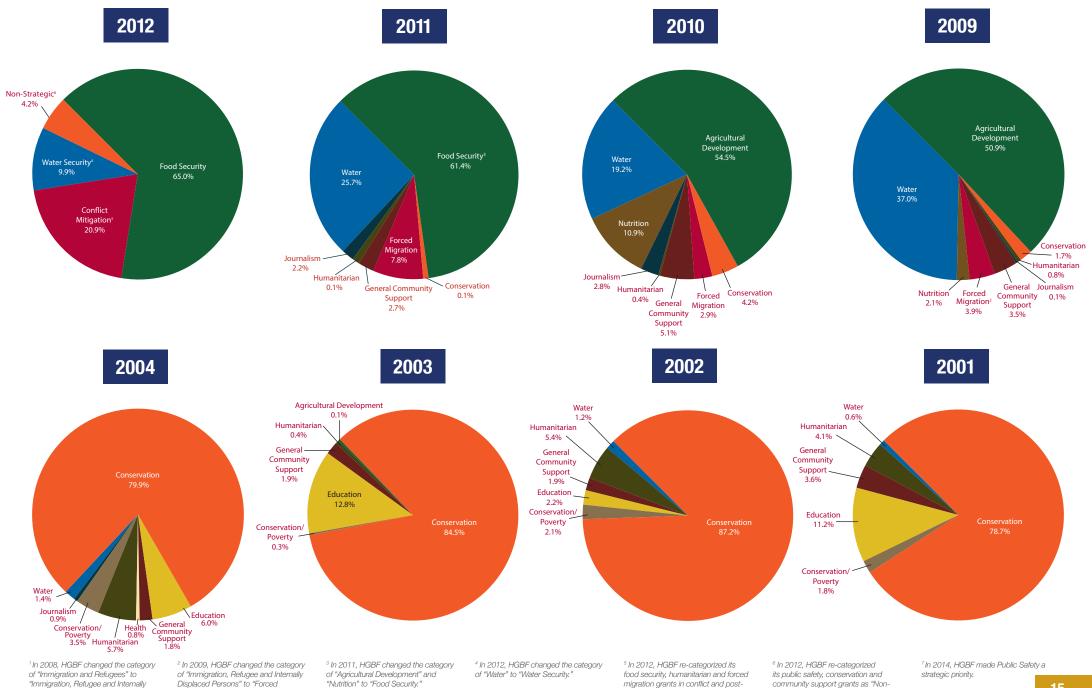
OPERATING EXPENDITURES (AS PERCENT OF GRANTS)





Displaced Persons."

. Migration."

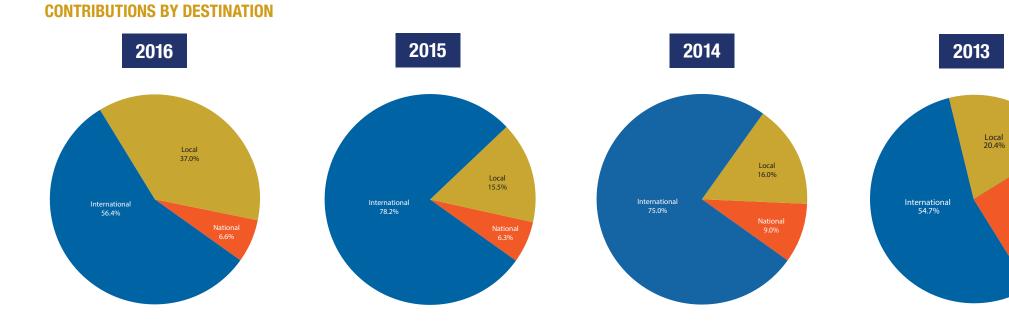


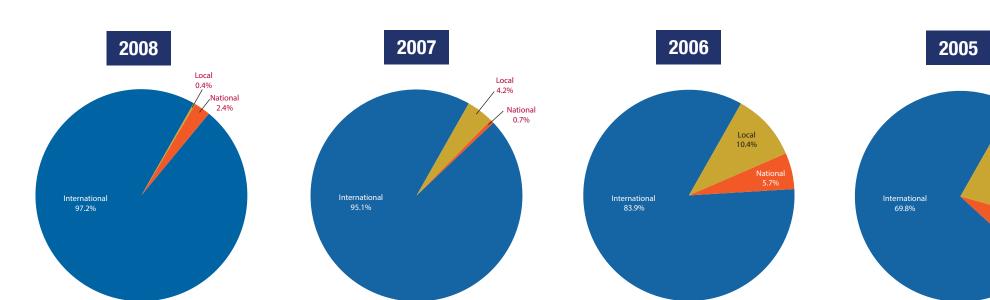
conflict countries as "Conflict Mitigation."

Strategic.'

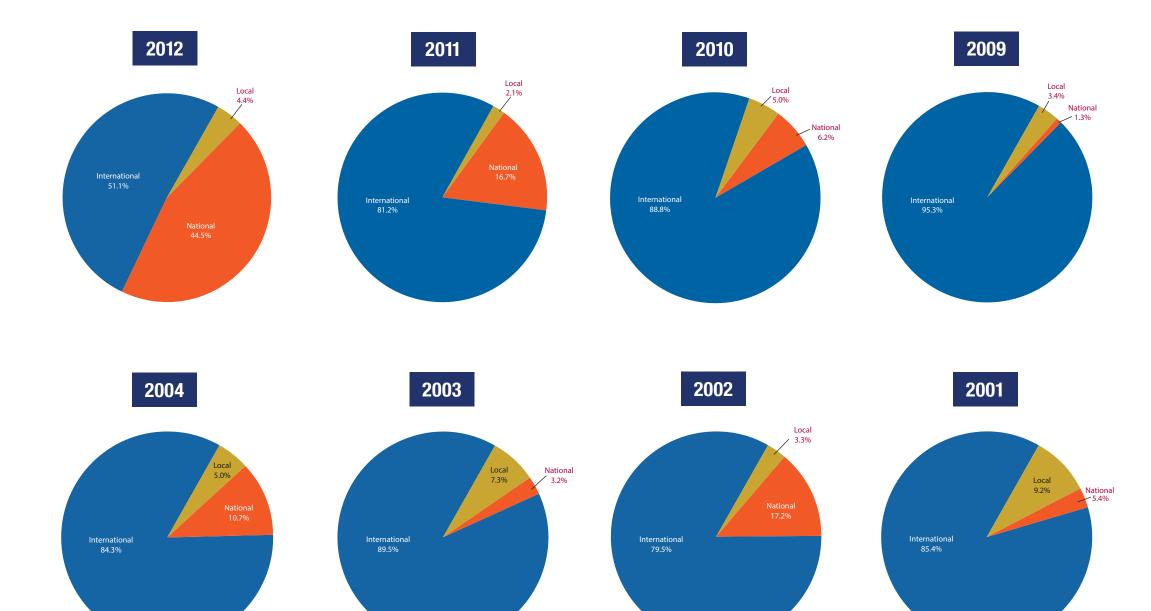
Local 21.3%

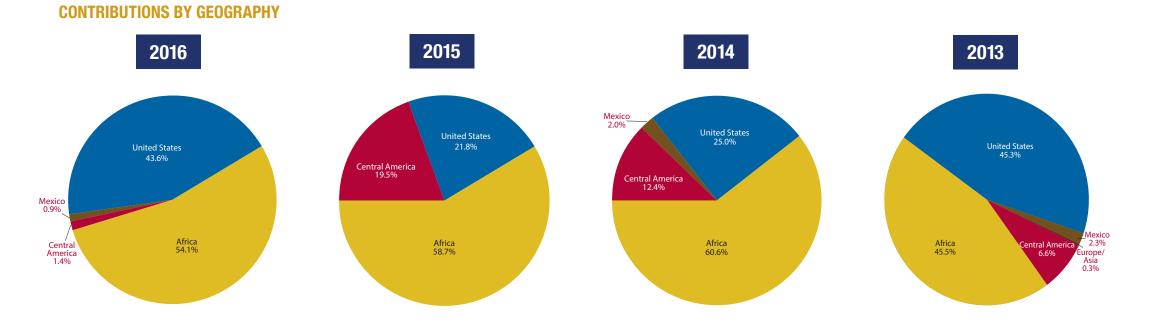
> National 8.9%

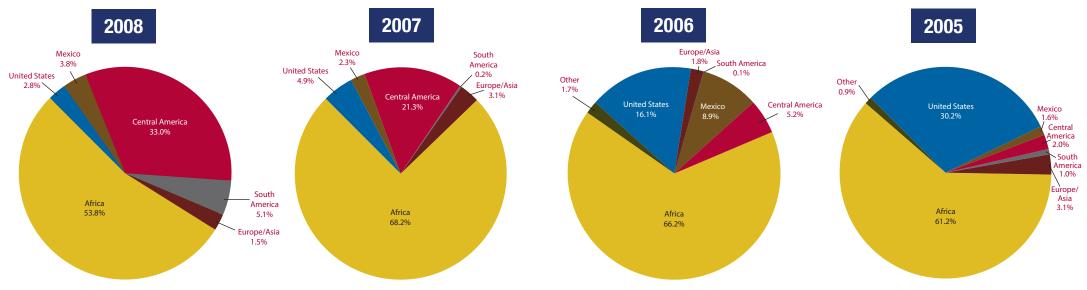


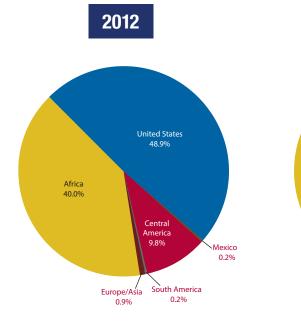


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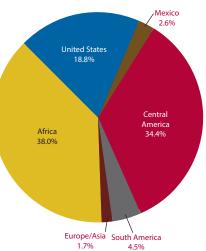


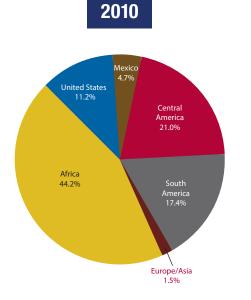


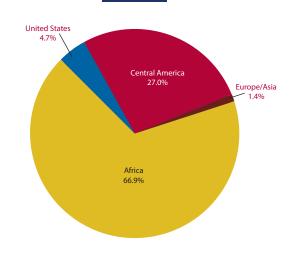




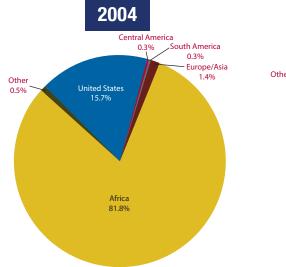


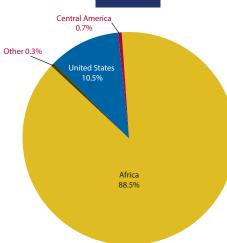




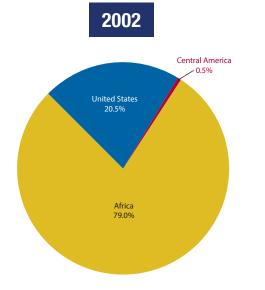


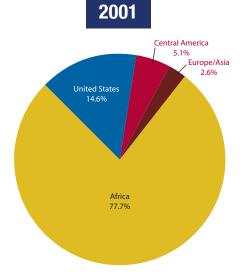
2009





2003





STATEMENT OF FINANCIAL POSITION¹ AS OF DECEMBER 31, 2017

ASSETS

	Cash and cash equivalents Investments Income tax receivable Land, Buildings, Equipment, net of accumulated depreciation TOTAL ASSETS	\$ \$	155,454,003 256,378,054 73,127 <u>3,729,962</u> 415,635,146	
LIABILITIES & NET ASSETS				
Liabilities:				
	Accrued expenses	\$	12	
	TOTAL LIABILITIES		12	
Net Assets:				
	Unrestricted		415,635,134	
	TOTAL NET ASSETS		415,635,134	
	TOTAL LIABILITIES AND NET ASSETS	\$	415,635,146	

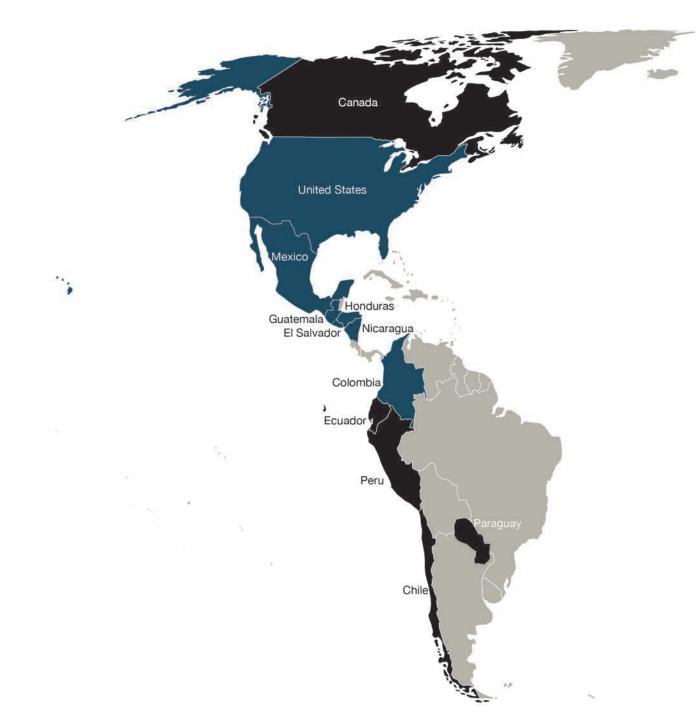
¹ Statements prepared on a cash basis/income tax basis

STATEMENT OF ACTIVITIES¹ YEAR ENDED DECEMBER 31, 2017

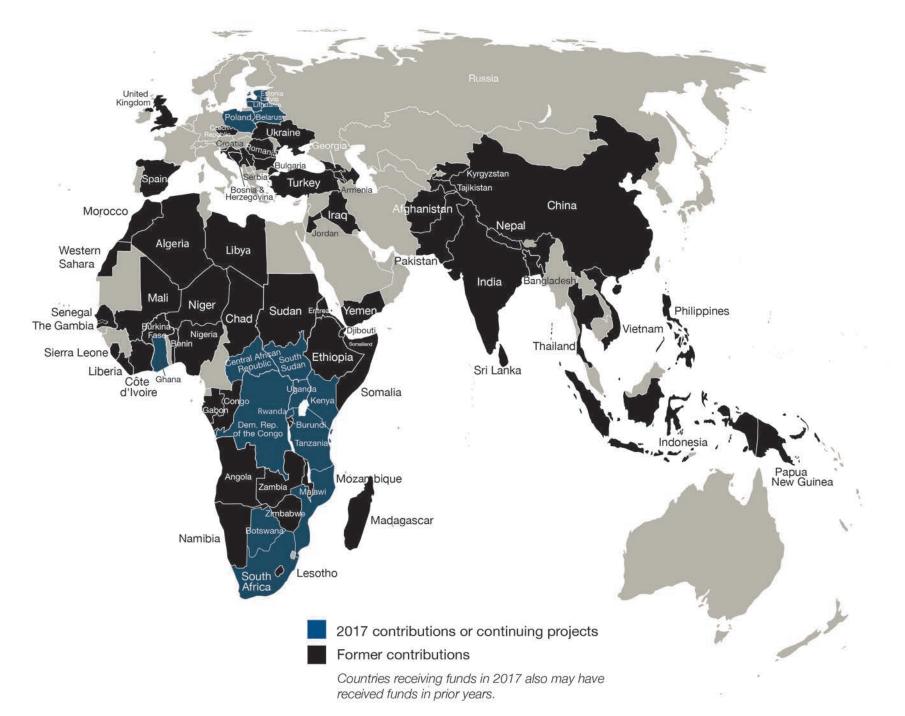
REVENUE AND SUPPORT:

Contributions and Grants: Operating	Ś	169,466,169
e per uning	Ŷ	100) 100) 100
Total contributions and grants		169,466,169
Gain (Loss) on sale of investments		(863,325)
Interest and investment income		963,631
Unused grant returns		14,927,640
Other income		362,360
TOTAL REVENUE AND SUPPORT		184,856,475
EXPENSES:		
Program:		
Food Security	\$	615,357
Conflict Mitigation		1,853,495
Community		207,672
Public Safety		171,537
Total Program		2,848,061
Contributions, Gifts, Grants Paid		169,350,284
General and administrative		3,799,736
TOTAL EXPENSES		175,998,081
CHANGE IN NET ASSETS		8,858,394
NET ASSETS AT BEGINNING OF YEAR		360,838,729
CHANGE IN UNREALIZED GAINS ON INVESTMENTS		45,938,011
NET ASSETS AT END OF YEAR		415,635,134

¹Statements prepared on a cash basis/income tax basis



- FINANCIALS



FOOD SECURITY



"Conflict and hunger are inextricably linked: conflict breeds hunger and hunger fuels conflict." —Howard G. Buffett

At the Howard G. Buffett Foundation, we strive to combat global hunger in some of the world's toughest environments, targeting regions prone to conflict, and areas with highly vulnerable populations and limited functioning governments.

Despite improving statistics over the last decade, food insecurity is again on the rise. The United Nations warned that in 2017 the world faces the largest humanitarian crisis since the UN was founded in 1945. Four regions, all prone to conflict, faced the risk of widespread famine: South Sudan, Yemen, Somalia and northeast Nigeria. This is in addition to the ongoing displacement and food insecurity in conflict-affected areas such as Syria, Myanmar, Turkey and the DRC. This is not an unfamiliar pattern: food insecurity goes hand in hand with conflict and displacement.

Over the past decade, the Foundation has witnessed first-hand the relationship between food insecurity and conflict. At the most basic level, food insecurity is both a cause and consequence of conflict. Individuals in conflictaffected areas are twice as likely to be malnourished as compared to individuals in other developing countries. Addressing food insecurity that is linked to conflict requires a more comprehensive purview that extends beyond just supporting smallholder farmer development. We often view our food security investments as investments in citizen security and vice versa, as we work to strengthen communities, reduce conflict and ultimately support an environment where development can begin to take hold.

The Howard G. Buffett Foundation's support for global food security focuses on agriculture resource development for smallholder farmers in Africa and Latin America. In 2017, the Foundation invested in a range of initiatives focused on improving farming practices, increasing productivity and promoting water-smart agriculture, among others.

Here is a snapshot of three of the initiatives the Foundation engaged in that show how, in conjunction with our partners and grantees, we are working to strengthen food security globally.

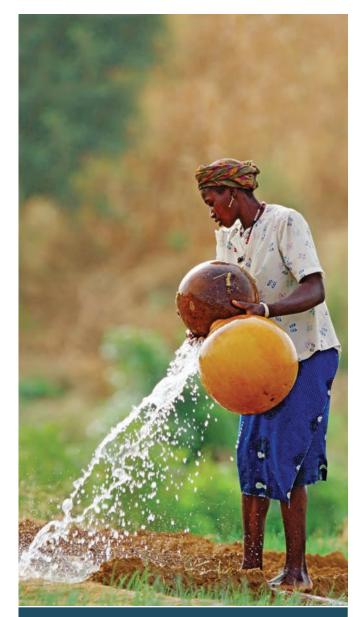
GLOBAL WATER INITIATIVE—WEST AFRICA: 10 YEAR RETROSPECTIVE

In 2017, the Foundation concluded its 10-year Global Water Initiative, with the completion of activities in West Africa (GWI-WA). GWI-WA was led by the International Institute for Environment and Development (IIED) in collaboration with the International Union for the Conservation of Nature (IUCN) with the vision that "Water is used efficiently and equitably, enabling farmers to improve food security and become more resilient to change through sustainable agricultural production for themselves, their communities and the world."

The initiative was guided by three principles for improving food security in the West Africa region:

- 1. Maintaining or improving water quality while conserving its use as a limited resource;
- 2. Developing and promoting sustainable agriculture systems, while improving knowledge and social learning;
- 3. Empowering smallholder farmers, while improving human well-being and fostering sustainable livelihoods.

GWI-WA specifically focused on evaluating the return on investment of government-led large-scale dams and irrigation projects. Each individual project affects tens of thousands of hectares in the region and impacts food security needs, particularly for smallholder farmers. First and foremost, GWI-WA challenged and assessed the economic effectiveness of these intensive commercialscale irrigation projects as a response to food security needs; second, the initiative worked to empower smallholder farmers and give them a voice in the process of improving practices and productivity; and third, the initiative supported better governance to secure land tenure and to share water and its benefits equitably and sustainably, while minimizing conflicts among users.



A smallholder farmer in rural Mali hand waters her fields. Manual irrigation is the only option for most smallholder farmers in Africa, and efficient and equitable management of water resources between agriculture and household needs is a constant struggle.

INTEGRATED WATER RESOURCE MANAGEMENT (2008-2012)

Developing nations affected by environmental degradation and inequitable allocation of water have seen vital water resources becoming more scarce. As of 2017, four billion people worldwide live in such water scarce environments. This condition often creates additional ripple effects, such as displacing communities and fueling conflicts.

West Africa has been no exception, experiencing heightened trans-boundary tensions and local conflicts due to scarce water resources. However, while water scarcity often creates conflict, access to safe water can improve health, increase school attendance and strengthen economies.

In its first four-year phase (2008-2012), GWI-WA focused on Integrated Water Resource Management (IWRM) for both productive and household use across four themes:

1. The use of IWRM as a comprehensive, collaborative approach to managing water resources.

Because public and private sector interests in water are many and potentially contradictory, the actions of one agent may have ripple effects on other users, thus creating conflict. The IWRM approach helps to mitigate these tensions by placing a central focus on collaboration and distribution so that stakeholders and community members can agree how to best conserve and utilize available water. The use of this dynamic process was central to the success of GWI.

This approach was particularly significant in the context of West Africa, which has witnessed the construction of more than 150 large dams over the last 50 years, each dam affecting water resources for tens of thousands of hectares. Although these dams are in many ways crucial, as they help meet the region's water, food and energy demands, the reservoirs nevertheless displace thousands of people who do not directly benefit from these projects. The participatory IWRM approach allowed for deliberate and well-informed planning, which led to more equitable and sustainable water use and better government policy.

2. Access to clean drinking water and development of good water management systems.

Ensuring vulnerable populations have reliable access to clean water means engaging with local communities in the design, implementation and monitoring of sustainable water supply systems.

3. Sustainable sanitation through behavior change.

Every year 2.2 million people die due to sanitation-related diseases and poor hygienic conditions. GWI-WA's initial sustainable sanitation project focused on implementing demonstration latrines in villages lacking sanitation as well as training local builders in latrine construction. However, demonstration latrines built in 2009 and 2010 proved ineffective in terms of cost sustainability and replication. Consequently, GWI-WA terminated the construction of demonstration latrines and conducted a critical review that led the project to adopt an alternative approach: Community Led Total Sanitation (CLTS).

CLTS was a means of training communities to conduct their own appraisal of their local sanitation. This participatory learning approach involved health workers, community volunteers, teachers and media sources to train people in sanitation, thereby enabling communities to take responsibility, initiative and action. Through these practices, we learned that merely constructing toilets in communities does not necessarily result in improved public health—behavioral change is necessary to improve sanitation conditions as well as individuals' perception of it.

4. Learning: Monitoring outcomes, changing practice.

The project's methodology for monitoring and evaluation adopted a results-based approach. This allowed us to assess our effectiveness in achieving success with people, processes and collaborating institutions. GWI-WA measured progress against three strategic objectives condensed into a single premise: "Outcomes are changes in behavior, relationships or actions of target groups in medium term, which demonstrate the uptake, adoption and use of project outputs."

"Everything [with GWI-WA] is participatory and inclusive. Local people have participated from the base to the summit. And people liked this way of working." — Mayor of Sare Coly, Senegal

SIGNIFICANT OUTCOMES & LESSONS

From the launch of the program through 2012, GWI-WA worked in 133 communities in 40 municipalities in Niger, Burkina Faso, Ghana and Mali. A total of 26,565 families (approximately 166,277 people) participated and benefited directly from program activities:

- 237 community members improved skills in water point management, maintenance and repair;
- 227 individuals improved use of water for agricultural production;
- 115 alliances were established at different levels that advocated for increased resources and improved policy for IWRM;
- 63 IWRM structures were developed with enhanced capacity to engage in monitoring water quality;
- 45 schools and health centers improved toilet and hand washing facilities;
- 16 communities invested in environmental rehabilitation to conserve and protect water resources;
- 15 communities improved water resource use for livestock or fisheries production.

The IWRM structures established throughout GWI-WA promoted community participation in the planning and management of water quantity and quality. Learning groups and alliances were established to allocate benefits from dams to vulnerable groups. Experiences of local communities in water management are now shared at local, national and regional levels.

GWI-WA's participatory approach was crucial to its successes. GWI-WA emphasized building solutions and resilience to conflict through the inclusion of citizens in decision-making processes. The word "participation" was by far the most frequently used by partners and project recipients to characterize the GWI-WA process.



A mother harvests wheat in rural Ghana. Smallholder farmers are the most vulnerable stakeholders in commercial-farming scale irrigation projects promoted by governments in West Africa. Prior to GWI-WA, smallholders were rarely given a voice in the process, the impact on their livelihoods was given little consideration and distribution of the water resource benefits were not necessarily equitable. GWI-WA worked to change that dynamic and provide smallholder farmers a voice and a stake in these government projects, even as it advocated for more efficient approaches to water resource management.

This approach enabled the inclusion and involvement of vulnerable and marginalized groups.

GWI-WA was able to target government-led irrigation projects in Niger and Guinea to improve benefit-sharing with local people, particularly smallholder farmers. It's this awareness-raising and public education that allowed for community members to become the "drivers of the process."

WATER FOR AGRICULTURE (2012-2017)

Governments in West Africa are promoting commercial farm-scale irrigation for rice production as a key strategy for food security in West Africa. However, underutilization and water-use inefficiencies have lowered the productivity of existing irrigation systems, which are below adequate performance levels. As a result, rice represents around 20 percent of agricultural imports within the sub-region over the last 30 years. The final five years of GWI-WA focused more narrowly on enabling smallholder farmers to improve food security and become more resilient by adopting sustainable agricultural production for themselves and their communities. Three integrated approaches guided this vision to create meaningful change through action-research and advocacy initiatives:

- Enabling more effective governance and policy;
- Enhancing the quality of information and improving practices;
- Improving and targeting the investment in solutions.

Between 2012 and 2017, GWI led a regional process to better inform the debate on irrigation options and efficient and equitable water use, and proposed policy change in three main areas:

1. Effectiveness of intensive irrigation schemes.

Current evidence suggests that commercial farm-scale irrigation systems have a low return on investment and do not meet household livelihood security needs for smallholder farmers. Because of these findings, GWI-WA gathered evidence on the effectiveness of intensive irrigation systems for livelihood and national food security needs and engaged policy makers in an informed debate around investment choices. The studies conducted by GWI-WA became part of the national dialogue process on rethinking commercial farm-scale irrigation infrastructure in West Africa, which led to the formulation of guidelines and to the creation of the Economic Community of West African States (ECOWAS) Directive. This legislation on water management and infrastructure means that the work of GWI will have an ongoing influence on water management in West Africa.

2. Advocating for empowerment of smallholder farmers.

Poor system performance is often caused by lack of farmer agency and poorly developed linkages between participants in the agricultural innovation system. Improved agronomic and market knowledge must reach those in need in a form that can be used for social learning. GWI-WA empowered smallholder farmers with a long-term commitment to improved crop cultivation and worked with them to identify and address policy barriers to sustainably improve their practices and productivity. This process brought together key stakeholders who previously did not work well together: government agencies, research structures, and outreach and advisory agencies. The result has been a better understanding of each other and a higher level of acceptance for GWI-WA's recommendations.

"At the farmer level, the support and advice being received came in the form of fragmentary and disjointed messages, and the farmer found himself tangled up in them. What GWI has done is harmonize our approach to agricultural services by focusing on the farmer and to respond to his or her needs."

-0. Ly, Sodragri, Senegal

3. Improving the governance systems around current and future dams.

GWI worked to ensure that all local beneficiaries share water and land equitably, utilizing opportunities for investment in diverse activities, avoiding conflicts between users and fostering secure and sustainable livelihoods for farmers and fishermen.

In order to improve governance, GWI-WA also worked on land tenure issues by helping displaced land owners secure permanent leases. This effort had striking results and had a substantial influence on the highest levels of government in Niger.

"If GWI had not intervened and had not done the work on the issue of leases as fair compensation for those expropriated, we were heading straight for a situation of "fitna*'[An Arabic term meaning unrest, dissension and even civil war], people were going to come to blows." —A.A Bazou, Code Rural, Niger GWI successfully achieved the goal of better informing regional and national bodies of improved models for benefit-sharing that could be adapted to a local context. Additionally, the land use and occupancy plans by GWI-WA led to reduced conflict in Guinea, Niger and Mali, and have helped to empower local people.

SIGNIFICANT OUTCOMES & LESSONS

Over the course of a decade, GWI-WA has made progress in influencing policy on water management infrastructure and on land tenure in irrigated areas in West Africa. According to an externally commissioned impact evaluation report, GWI-WA's work will leave behind an important and beneficial process and knowledge base in the project sites and countries it operated in. By bringing local, national and regional organizations and institutions together and building them into networks, GWI has enabled them to scale up their influence on policy and learn from each other, while strengthening national and regional expertise on governance of dams and irrigation systems.



Women gather at a water distribution point in Niger. Countries in West Africa, like Niger, are prone to drought, underscoring the importance of efficient and equitable management of water resources to ensure smallholder farmers have the water they need for agriculture and livestock and to meet basic human needs.

The tools developed through GWI-WA are widely accepted, and its results are being discussed and reflected in national legal codes. One example of this is the completion of the *Guide to Land Tenure on Irrigation Schemes in Niger*, which is now national policy.

Many factors led to GWI-WA's achievements. In contrast to pure research institutions, GWI-WA tackled real problems, thus contributing to identifying practical solutions within reasonable time frames. In the countries where it worked, GWI-WA research was done on the basis of collaboration agreements with local and national official bodies, which provided a basis for local ownership of the approach and the outcomes of the research.

As part of the GWI-WA approach, no major research activity ended without holding feedback workshops, often at local and then national levels. This enabled a critical mass of stakeholders to be engaged—government officials, technical and financial partners, representatives of civil society and of local people, and regional organizations. GWI-WA was involved in guiding the research process and the implementation of its recommendations through the supervision of multi-stakeholder monitoring committees, an approach that sets it apart from traditional projects.

At a regional level and in the intervention sites, GWI-WA had a particular emphasis on bringing together and networking with individuals who could act collectively to scale up their influence and who could learn from each other. Because GWI-WA invested heavily in coaching national consultants who were recruited to support different components of the program, GWI-WA leaves behind experts who will continue to serve the region for a long time to come.

"Whereas the other partners come with their funds, target certain zones, employ civil servants...and start work, sometimes with no real result to show for it, GWI does not impose itself, does not impose its own expertise, but takes more of a moderator role."

-K. Dembélé, Ministry of Agriculture, Mali

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FOOD SECURITY

The many complexities of GWI-WA have also meant collective challenges. The fact that the program does not fund infrastructure development or income generation was a problem. Because GWI intervention areas faced problems of acute poverty, local people expressed concerns over long research programs that took up much of their time and effort, rather than resolving the immediate problems of survival.

This concern was reinforced by the Technical Director of The Society for Agricultural and Industrial Development in Senegal (SODAGRI), who reported that people in the Anambé zone often said of GWI-WA: "They do a lot of studies. We want to eat!"

In contexts such as West Africa where the rule of law is still weak, the major challenge of governance was ensuring the effectiveness of policies and laws that had been agreed upon and approved. There are many progressive laws in place in the region that are not applied in practice, while many high-quality and ambitious plans and strategies are languishing in ministry files. Consequently, it is the effective implementation of policy—requiring actual changes in practices and behaviors—that remains a major challenge.

"GWI has an advocacy approach. This has a weakness because it stops at the point where it has helped the partner to dig down and find out what needs to be done, whereas the partner also needs support to carry this out, so that there is more added value." —S. Keita, Technical Director, Mali

AGRICULTURAL LANDSCAPE RESTORATION INITIATIVE, EL SALVADOR

El Salvador possesses some of the most degraded soils in Latin America, and 75 percent of the country's agricultural lands are affected by severe soil erosion. Less than five percent of the country's natural forests are intact, and water resources are threatened by agricultural run-off and watershed degradation.



Deforestation and hilly terrain increase soil loss from erosion and make landslides common in El Salvador. Clearing fields like this one through burning is also quite common and destructive to the health of the landscape. All combine to make soil less productive and less able to absorb and store water.

The major sources of agricultural land degradation in El Salvador include:

- Burning as a common practice for land clearing;
- Unsustainable grazing practices on pastures and farms across the country;
- Weak agricultural extension services;
- Limited investment in rain-fed agriculture for smallholder farmers;
- Social disintegration in rural areas, including high rates of gang-related violence and massive out-migration.

More than 40 percent of the land in El Salvador is highly prone to landslides, and 65 percent of watersheds and riparian areas lack permanent vegetative cover. This landscape degradation has devastating consequences for agricultural production: farmers are more vulnerable to extreme weather events; are more likely to face "agriculture droughts" (marked by plant roots' inability to access water or nutrients due to degraded soils); and must withstand low water productivity. Virtually all watersheds and aquifers in El Salvador are impacted by agriculture activities. This presents a major challenge because land degradation has a direct negative impact on water supply and quality; degradation causes the soil to lose its ability to absorb and store water, meaning water recharge rates decline.

In El Salvador, 50 of the country's most important rivers have lost an average of 30 percent of their dry-season flows over the past 25 years. In fact, due to limited rainfall in June and July of 2016, the government declared a national water emergency, and was forced to ration water supply in San Salvador and deliver water by trucks instead of pipes. Of the 400,000 farmers in El Salvador, 95 percent are smallholder farmers dependent on rainfall and working on marginal and degraded lands. Due in part to unsustainable farming practices and land degradation, rain-fed yields are far below their potential, contributing to poverty among farming households, with 47 percent living below the poverty line or USD \$2 per day, according to the International Fund for Agricultural Development.



A river in El Salvador is brown from soil that has eroded from area farms. The river empties into the Pacific Ocean, carrying with it topsoil that takes hundreds of years to reproduce—it can take 500 years to produce one inch of topsoil. Educating smallholder farmers on better soil and water resource management can reduce erosion, restore soil health, improve water quality and retention, and overall increase farm productivity.

After two decades of smallholder agriculture work in Latin America and Africa, the Foundation has documented how adoption of water-smart agricultural practices can increase productivity and farmer net income. Building on the knowledge developed from these conservation-based agricultural programs, particularly Water-Smart Agriculture launched in 2015 in Central America and Mexico, Catholic Relief Services is partnering with the Foundation to implement the Agricultural Landscape Restoration Initiative (ALRI) in El Salvador to develop and demonstrate a model to revitalize smallholder rain-fed agriculture and restore agriculture landscapes.

As a long-term agricultural project, ALRI will, if milestones are met, be implemented over a period of 12 years (2018-2029), divided in four phases. The program's first two phases will focus on building local capacity and evidence through learning and research; the second two phases will center on technical assistance and advocacy efforts at national and regional scales.

The primary objectives of the initiative include:

- Increased agricultural productivity for farm families at a landscape scale;
- Restoration of agricultural systems;
- Strengthened social capital and leadership capacity for agriculture landscape management;
- Development of partnerships to advocate for agriculture landscape restoration nationally.

ALRI is targeting the department of Ahuachapán in western El Salvador because of its potential to achieve results in the medium- and long-term. The central desire for this initiative is to build on the strength of the local partners, the profile of farmers that are willing to adopt and implement WSA, and a spirit of collaboration among municipal government and other development actors.

Additionally, the initiative will focus on four key themes:

1. Manage Soils to Manage Water

ALRI increases water productivity on farms at a landscape scale by restoring degraded soils. The application of Digital Soil Mapping tools promoted by WSA and its research partners will enable the program teams and farmers to analyze and plan, using visual tools and soil models designed specifically for the landscape scale.

2. Build a Robust Extension Network

The initiative designs and fosters a robust extension network involving program staff, local governments, national government agencies, schools and other stakeholders within the landscape to reach thousands of farmers with high-quality extension and training services.

3. Strengthen Local Capacity for Agriculture Landscape and Planning Implementation

To ensure program impact over the short- and long-term, ALRI will strengthen local actors in project planning and implementation. This work will include strengthening local capacities for conflict management as well as engaging youth as participants and leaders.

4. Apply a Collective Impact Model

Given the complexities of working at a landscape scale, ALRI is supporting and building a network of partners and stakeholders within the landscape, in coordination with municipal and national development officials. Improving water resources plays a crucial role in bringing together a wide range of stakeholders given the urgency of water scarcity across El Salvador, including the program's target landscape.

The ongoing Water Smart Agriculture initiative has demonstrated that adoption of improved farming practices also improves agro-ecosystem services, such as fresh water supply, benefiting communities downstream or beyond the agricultural landscape. The adoption of improved agricultural practices can significantly increase rain-fed agriculture production and stimulate rural economic growth, particularly benefiting smallholder, rain-fed farmers.

FOOD SECURITY

HORSESHOE DRAW FLOOD AND EROSION CONTROL, ARIZONA

The Hereford Natural Resource Conservation District in Arizona promotes the restoration and conservation of the state's natural resources by supporting policies and practices that are economically feasible and environmentally responsible. The District works with federal, state and local entities to accomplish soil, water and species conservation. A central goal of this entity is to promote and support programs for watershed improvement and soil erosion reparation on all lands within the District. Consistent with other land conservation efforts in Arizona, in 2017 the Foundation supported the District's Horseshoe Draw Project to address flooding problems in a 9,000acre watershed, which concentrated into the Horseshoe Draw and eventually drained into the San Pedro River. The area is prone to intense flooding, resulting in a reduction of living conditions and posing hazards to surrounding residents. The San Pedro is of particular significance, as it is the last major free-flowing undammed river in the American southwest and home to two-thirds of the avian diversity in the country.



The Foundation funded the Horseshoe Draw Flood Erosion and Control Project in the Hereford Natural Resources Conservation District to address intense flooding in the surrounding 9,000 acre watershed that was negatively impacting area residents and ranchers and leading to soil loss and groundwater contamination. The project was awarded the Arizona Chapter Associated General Contractors Build Arizona Award, designating it one of Arizona's finest infrastructure projects for 2017.

The Horseshoe Draw Flood and Erosion Control project was designed as part of a comprehensive solution to mitigate the flooding hazards and prevent further damage to the surrounding area. The central objective of the project was to construct an impoundment structure within Horseshoe Draw that would effectively slow the rate of discharge to downstream waters by detaining surface water runoff. This structure would address stream degradation, erosion and flooding hazards at Paloma Trail dip crossing—a primary access route for a number of homes. Additionally, it would protect from the loss of wash bank stability.

The central accomplishments of the project included:

- Reduction of pathogens transport into San Pedro River;
- Reduction of flood peaks to prevent further damage to roads and property downstream;
- Reduction and healing of erosion and soil loss;
- Reduction of sediment transport into San Pedro River;
- Increase of groundwater recharge into the Upper San Pedro River Basin aquifer.

The project was completed in 88 days and was turned over to Cochise County for upkeep and maintenance, but will be continuously monitored by Hereford NRCD. Since its completion, the project has reduced erosion and flooding, as well as transportation of *E-coli* and sediment to the San Pedro River. This community development investment will restore the health of grasslands for livestock as well as wildlife grazing habitat.

On November 17, 2017, the Horseshoe Draw Erosion Control project was awarded the prestigious Arizona Association of Counties Award (AACo). When discussing the honor, Director of the Highway & Floodplains Department Karen Riggs shared, "Winning this award allows us to share our story with others and to communicate the type of projects we are undertaking in the region to arrest soil erosion and sedimentation into the San Pedro River, and to allow natural grasslands to heal, which are critical to our watershed health."

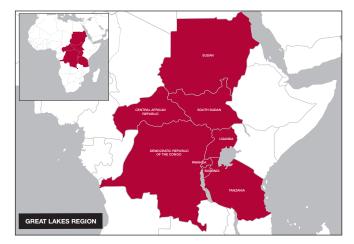
CONFLICT MITIGATION



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Conflict and instability affect at least 50 countries and 1.5 billion people worldwide. According to USAID, nearly 60 million individuals globally—nearly half of them children— are forced from their homes annually due to conflict and violence. In an effort to promote peace-building and the rule of law, the Howard G. Buffett Foundation funds projects that seek to mitigate the causes and consequences of conflict.

The Foundation works to address the underlying causes of conflict through projects that promote economic development, better governance, stronger institutions, and ultimately citizen security. Our 2017 funding highlights include the continuation of two decades of investment in Africa's Great Lakes region; new large-scale investments to improve citizen security in El Salvador; and a groundbreaking demining initiative in post-conflict Colombia.



TRANSBOUNDARY INTEGRATION IN AFRICA'S GREAT LAKES REGION

The challenges many African countries face rarely begin and end at their own borders. Conflict, food insecurity, migration and resource depletion are all issues that can destabilize entire regions, irrespective of political boundaries. Recognizing this reality, the Foundation has invested in transboundary initiatives in Africa's Great Lakes region for the past two decades to promote greater economic integration and conservation of some of the region's most important ecosystems.

GRANDE BARRIÉRE FACILITY: A ONE-STOP BORDER BETWEEN DRC AND RWANDA

A vital link between the DRC and Rwanda, the Grande Barriére border crossing at Goma, DRC, and Gisenyi, Rwanda, is one of the busiest transit points for people and commercial goods in all of Africa. In 2017, the Foundation completed construction of a one-stop border post, which modernized the site and increased its capacity. The goal of the project was to expand the shared economic interests of these two countries with a long history of conflict.

The Grande Barriére One Stop Border Post was inaugurated by the Foundation's Chairman and CEO, Howard G. Buffett, and Rwandan President Paul Kagame on September 1, 2017.

CONSERVATION AND CONFLICT MITIGATION IN THE NATIONAL PARKS OF AFRICA'S GREAT LAKES REGION

The national parks of Africa's Great Lakes region (including Sudan, South Sudan, CAR, DRC, Uganda, Rwanda, Burundi and Tanzania) are home to some of Africa's most impressive wildlife. National parks in the DRC, Rwanda and Uganda are the last remaining refuge of the highly endangered mountain gorilla. The region is also home to some of the poorest people on earth. Political instability, civil war and a mismanagement of resources often pit the needs of the human population against the needs of wildlife and ecosystems.

This year marks two decades of Foundation investment in conservation in Africa's Great Lakes region and in particular, its national parks.



Photo: The Howard G. Buff

Foundation Chairman and CEO Howard G. Buffett, Rwandan President Paul Kagame and other key Rwandan government officials dedicate the Foundation-funded one-stop border post between Gisenyi, Rwanda, and Goma, DRC, on September 1, 2017. The border post is designed to facilitate greater cooperation and commerce between Rwanda and the DRC.

We include here a retrospective of some of the \$120 million we have invested in support of conservation in this region since 1997. While these projects are a small portion of the more than \$500 million we have invested in the Great Lakes region overall, they nonetheless represent an important connection between our earliest priorities as a Foundation and our priorities today.

INTERNATIONAL GORILLA CONSERVATION PROGRAMME (ICGP)

One of the Foundation's early objectives in Africa's Great Lakes region was to contribute to the protection and survival of endangered mountain gorillas. We first partnered with the IGCP in 1997 in Rwanda, Uganda and the DRC to support a regional approach to gorilla conservation. IGCP brings together governmental, NGO and civil society stakeholders to address the challenges that threaten gorilla habitats.



The world population of mountain gorillas is estimated to be 880, residing in the Virunga Volcanoes mountain range that spans eastern DRC, Rwanda and Uganda. The Foundation has supported a wide variety of mountain gorilla conservation efforts over the last 20 years, including funding the construction of the Senkwekwe Center at Virunga National Park in the DRC to improve the conditions of orphaned gorillas, like the one pictured above alongside the Foundation's Chairman and CEO, Howard G. Buffett.

IGCP's mission includes research related to the interaction of gorillas, humans and their shared environment. The first study the Foundation funded in 2001 evaluated the impact of Rwandan refugees on gorilla habitats. In 2002, the Foundation sponsored a study that assessed various land-use strategies for Bwindi and Volcanoes National Parks. It studied the economic implications of both short-term and long-term uses of land in the parks. In 2004, the Foundation also underwrote an impact assessment of IGCP's conservation methodology. The aim of the assessment was to ensure active contributions to conservation during times of conflict. In 2006, the Foundation also provided operational support for an IGCP meeting held at the OI Pejeta Conservancy in Kenya.

RWANDA GIRLS INITIATIVE

An important aspect of conservation is building local knowledge and understanding of the relationship between wildlife, habitats and human development. In 2014, the Foundation funded a program to sponsor ten students a year from the Gashora Girls Academy to go gorilla trekking—a trip most Rwandans will not experience in their lifetimes, despite their proximity and coexistence with the gorillas. After the trip, the girls are required to deliver a report to their fellow students.

"Seeing these beautiful animals (almost our relatives) made a very strong impression on us, and it made us truly appreciate the value of conserving our ecosystem." —Gashora Girls Academy Participant

AFRICAN PARKS

The Foundation works closely with African Parks, a nonprofit that partners with African governments to manage their national parks. Since the start of the Foundation's partnership with African Parks, the Foundation has provided grants for general support of the organization as well as funds for specific projects. In 2014, the Foundation helped fund African Parks' anti-poaching efforts in DRC's Garamba National Park.

In 2017, we supported the reintroduction of 20 Eastern Black Rhinos to Akagera National Park, which had gone extinct in the park in 2007 due to poaching. The Foundation not only assisted in the reintroduction of a founder population of rhinos, but helped Akagera boost its security in preparation for receiving the rhinos from South Africa. This included helicopter surveillance, an expert rhino protection team and a canine anti-poaching unit.

The addition of black rhinos distinguished Akagera as the only Big 5 National Park in Rwanda. The term "Big 5" is used in tourism to refer to the African parks that are home to all five big species; rhinos, lions, elephants, leopards and buffaloes. The label has helped place Akagera as a top wildlife safari destination. This is critical not only for Rwanda's biodiversity, but for bringing economic and social benefits to surrounding communities.

The Foundation has also made strategic infrastructure investments in the park, allowing it to better employ local people and offer enterprise development opportunities to surrounding community members. This economic development is part of the Park's strategy to reduce conflict between the necessity of conservation and the survival needs of humans in the area.

"[This] investment by The Howard G. Buffett Foundation will change lives, save wildlife and support a country that is fast becoming the success of Africa."

-Peter Fearnhead, CEO African Parks Network

CARE INTERNATIONAL

In 2006, the Foundation partnered with CARE International to study the conflict between human needs and conservation in the Great Lakes region, and define a plan to equitably divide the burdens of co-existence. In 2007, following this initial study, the Foundation provided \$9 million in funding to promote sustainable livelihoods through development of small-scale agribusinesses including seed potatoes, beekeeping and mushroom enterprises.

EASTERN CONGO INITIATIVE

Founded by Ben Affleck, the Eastern Congo Initiative (ECI) seeks to address the economic challenges of Congolese people living in and around national parks. An initial grant in 2012 from the Foundation allowed ECI to begin operations, grant-making and technical programming based in the DRC. Because of the Foundation's early operational support, ECI was able to:

- Conduct field based, participatory research which has influenced public policy and bolstered economic investment into DRC;
- Develop monitoring and evaluation systems for fieldbased programming;
- Build capacity of local Congolese organizations;
- Integrate partners' voices into ECI's U.S.-based advocacy efforts to increase investment into DRC.

The implementation of these programs contributed to the social and economic capacity of the Congolese.

TEAM NETWORK AND NATIONAL GEOGRAPHIC

Several grants were also funded for researchers working in the Virunga Mountain habitats. In 2014, we partnered with the TEAM Network in Bwindi National Park in Uganda and Volcanoes National Park in Rwanda. TEAM is a collaboration of more than 90 different conservation NGOs, focused on collecting critical data from tropical rainforests around the world. The Foundation funded two four-year grants to support TEAM's work collecting data on flora, fauna and climate in the two national parks. Also in 2014, we established an East Africa research fund with the National Geographic Society. The fund facilitates grant-writing and communications capacity building for local researchers, and also awards \$500,000 a year to scientists, researchers and conservationists working in the region.

WILDLIFE CONSERVATION SOCIETY

As part of its commitment to conservation, the Foundation invested in a variety of grants with the Wildlife Conservation Society. In 2004, we provided a research grant to survey cheetahs, study cheetah genetics and monitor the long-term population of cheetahs in the Serengeti. A key outcome of this research was the Range-Wide Conservation Program (RWCP) for Cheetah and African Wild Dog.

With the Foundation's support, RWCP hosted regional workshops, which established regional conservation strategies for eastern and southern Africa, as well as national conservation action plans in Kenya and Botswana. The workshops were held in 2007 and engaged representatives from all cheetah range state governments and significant stakeholders. Additional workshops were held in 2014 to provide training for customs, wildlife and security officers in air and sea ports in Tanzania.

The training focused on identification, detection and reporting of elephant, rhino, leopard, lion and cheetah parts and products as well as regulations around wildlife trade.

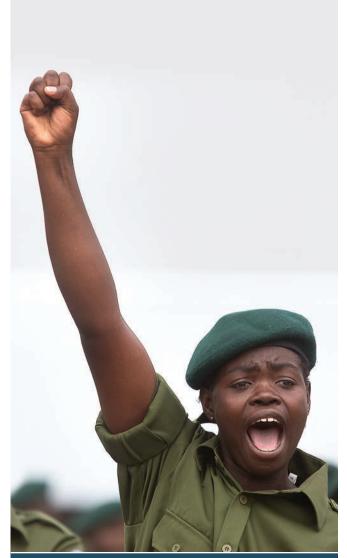
RWANDA DEVELOPMENT BOARD (RDB)

Illegal activities within protected areas of Rwanda's National Parks are a constant threat to Rwanda's vital tourism economy. Due to the high density of the human population and poverty, the collective impact of these illegal activities has threatened population numbers of many park species.

In 2014, the Foundation partnered with RDB to strengthen park ranger capacity and support activities in the protected areas of Rwanda's national park by funding the recruitment, salaries, equipment and training of 120 rangers. In order to improve tourism and regional stability between Rwanda and the DRC, the Foundation is also supporting RDB's priority to upgrade the Volcanoes National Park Highway, which passes through park headquarters. This project will allow for increased tourism opportunities in Rwanda and connectivity between Volcanoes National Park and Virunga National Park.



Park rangers in Rwanda conserve and protect habitat and wildlife in Rwanda's three national parks: Nyungwe Forest National Park, Volcanoes National Park and Akagera National Park. The latter park is managed by African Parks. The Foundation has provided support to improve Rwanda's antipoaching capability in all three national parks as well as improving tourism opportunities in Akagera in partnership with African Parks and the Rwandan government.



Virunga National Park's rangers are the frontline protection force for Africa's oldest park and the estimated one million people living within a day's walk of the park. The Foundation has supported the recruitment, training, salaries and nonlethal equipment and supplies for an additional 600 park rangers, including the first ever female rangers, increasing enforcement capacity by more than five times what it was prior to our grantmaking.

VIRUNGA NATIONAL PARK

Virunga National Park, Africa's oldest national park, is one of the most biologically diverse areas on the planet, home to a wide variety of endangered wildlife and natural resources. Virunga is also part of the transboundary region that is home to the world's remaining 900 mountain gorillas. Unfortunately, it is also the site of frequent violent conflict between armed groups operating in the park. For nearly a decade, the Foundation has provided general operating support for Virunga as well as funded specific projects across the park. Our mission has been to support Virunga's vision of a secure, developed and economically prosperous park, where both humans and wildlife can thrive. Our support has been significant and wide-ranging, including:

- Funding the recruitment, salaries, non-lethal equipment and supplies, and training of 600 new park rangers (including the first ever female rangers), tripling the total number of rangers protecting the park;
- Support for Virunga's Community Support Force (CSF), which acts as law enforcement, facilitates the adoption of electricity in businesses and households, contributes to economic development and to improving livelihoods, and pays special attention to communities at risk, especially female heads of households;
- Emergency funding to bolster the park's defensive capabilities and restore stability and rule of law in the area after a series of increasing attacks by rebels;
- Resources to create the Senkwekwe Orphan Gorilla Sanctuary and Educational Center in 2010;
- Support to add fencing to combat illegal encroachment occurring in Virunga National Park;
- In 2013, the Foundation embarked on its most ambitious Virunga project: rural electrification through the establishment of hydro-electric plants. The Foundation completed its first 13.6 MW hydroplant in Matebe in 2015 and has subsequently provided resources to support hydroplant development in three additional locations.

INVESTMENTS IN CITIZEN SECURITY IN EL SALVADOR

The Foundation has supported food security initiatives in Central America for more than a decade. We have invested in improving agricultural extension networks; increasing farmers' access and participation in formal markets; supporting production and quality improvements among smallholder farmers; and rehabilitating soils, which are among the most degraded in the world. We have pursued these projects with the overarching goal of mitigating the economic instability that drives migration from Central America to the United States.

Beyond food insecurity, the Northern Triangle countries of Central America—Guatemala, Honduras and El Salvador—have also been challenged by high levels of gang violence for decades. Gangs operate with near total impunity, making development progress difficult if not impossible. Once a predominantly urban problem, in recent years we have seen the levels of violence increasingly impact rural farming communities. This shift has prompted us to develop a portfolio of investments in citizen security to complement our ongoing food security efforts, concentrating these new investments in El Salvador.

Our starting point was to canvass the landscape of organizations and individuals working on these issues to identify the best unmet needs and project ideas. Among the ideas identified during that months-long process: reducing impunity by improving investigative capacity and securing El Salvador's most important urban park.

NATIONAL FORENSICS CENTER

Impunity is one of the key drivers of violence in El Salvador, with less than 10 percent of all reported crimes resulting in a conviction. This contributes to a vicious cycle in which Salvadorans choose not to report crimes because they have little faith that police will perform an effective or timely investigation. Quality infrastructure is one of the biggest roadblocks to investigations in El Salvador. Currently, the Investigative Police have well-trained personnel and adequate equipment, but the forensics lab, established in 1994, is situated within a converted house in a residential neighborhood, with more than 300 people crammed into a space designed for 50.

The Foundation is working with the U.S. Department of State's Bureau of International Narcotics and Law Enforcement (INL) to develop a plan for funding consideration in 2018 that would construct and equip a national forensics center for El Salvador. INL has committed to leverage the Foundation's potential investment in infrastructure by providing forensics training to the National Civil Police (PNC) of El Salvador.

Our collaboration with INL and PNC has also benefited from the contributions of the National Police of Colombia, who manage some of the best forensics facilities in Latin America. By fortifying the investigative capacity of police, our goal is for the PNC to have the tools it needs to more effectively combat organized crime, which is fundamental to strengthening rule of law in El Salvador.

PARQUE CUSCATLÁN

Rampant gang violence and a surge in homicides recently earned San Salvador, the capital of El Salvador, the title of "murder capital of the world." In 2016 El Salvador had a homicide rate of 81.2 per 100,000 inhabitants, making it one of the most violent countries currently not at war. One in three homicides occurs in San Salvador. The city is densely populated and lacks safe open areas where people can spend time away from their homes.

Cities like New York and Medellin, Colombia, have pioneered what is known as Crime Prevention Through Environmental Design (CPTED). The basic premise of CPTED is to make strategic public spaces safe by increasing foot traffic and allowing citizens to feel ownership of their communities.



El Salvador's prisons and jails are notoriously overcrowded. Here, local holding cells called *bartolinas* house several dozen prisoners, many accused of gang activity, in a space so crowded that prisoners alternate spending time in hammocks strung from the ceiling. This particular holding cell in San Salvador is mostly exposed to outside elements. Prisoners are supposed to be held in these temporary jails for no more than 90 days; however, we met many prisoners who had been living in these conditions for many months.

The Foundation is supporting a plan to apply these same principles to Parque Cuscatlán–El Salvador's most significant, but largely abandoned, urban park. The 17-acre park is strategically located at the entrance of downtown San Salvador and connects some of the country's most marginalized communities that are impacted by high crime and violence rates, with the more developed and secure parts of the city. The park is home to a children's museum, a multi-sport complex and a civil war commemorative wall. This park has been largely abandoned by Salvadorans because the space is largely controlled by gangs and the park's infrastructure is in a state of disrepair.

Attracted by its central location, accessibility and symbolic significance, the Foundation is supporting San Salvador in "taking back" Parque Cuscatlán through a complete infrastructure and security overhaul.

This project is a unique opportunity to improve the quality of life for approximately 1.5 million Salvadorans who pass by and through Parque Cuscatlán every day. The park will also benefit from an increased presence of police stationed in and around the park.

This year the Foundation pledged to renew the park's pathways, rehabilitate greenspaces with the integration of CPTED design principles and install a lighting and security monitoring system. In 2018, we will consider funding several other improvements to the park, including erecting overhead walkways, constructing a new police station within the park, opening an amphitheater and community center and renovating the National Art Gallery. With these plans, we seek to make Parque Cuscatlán a platform for crime prevention, education and cultural and social interaction.





This project is strengthened by the diverse group of individuals who came together in support of renovating and preserving public space in San Salvador. The Foundation's investment in the park infrastructure is being accompanied by major investments in programming and maintenance by the U.S. Agency for International Development (USAID) and the Municipality of San Salvador.

Glasswing International, a Salvadoran non-profit, will implement community programs in the park and is working with Salvadoran private donors to establish a park trust that will support maintenance and programming in the park for years to come. We all share the goal of creating an urban oasis in San Salvador that fosters community, social unity and security for all Salvadorans

PROMOTING BEST PRACTICES IN CANDIDATE DEBATES

Mexico and Central America's Northern Triangle have historically grappled with violent criminal networks, endemic corruption, weak government institutions and economic inequality. Social activists in Mexico and the Northern Triangle have stressed the importance of candidate debates as central to free and fair elections.

In 2017, the Foundation engaged the National Democratic Institute (NDI) to address the key barriers to best practices in candidate debates in these countries, such as successfully producing live national television and radio programs, convincing candidates to participate and allaying fears that organizers may have a political bias. NDI partnered with the U.S.-based Commission on Presidential Debates (CPD) to strengthen the ability of national debate sponsors in Mexico and the Northern Triangle to hold effective debates and promote the exchange of best practices among debate organizers in the region.

In the 2018 elections, for the first time, the National Electoral Institute (INE) of Mexico will be responsible for simultaneously carrying out local elections in 30 of 32 Mexican states as well as nine governors' races and the presidential contest. The INE is also tasked with staging 15 debates. However, the country's volatile political environment, fueled by criminal violence, corruption, impunity and human rights violations, will create significant challenges to accommodate successful debates. NDI and CPD will work to organize two technical exchanges in Mexico City to help INE prepare and improve the 15 governor and presidential debates for the 2018 elections, as well as develop a national debate plan and prepare moderators.

In the Northern Triangle, public concerns over corruption and impunity continue to grow and create challenges for upcoming elections. To support effective debates in 2018 and 2019, NDI, the CPD and Debates International will provide on-the-ground assistance in preparation for legislative and presidential debates. The exchanges will aid the local agencies in a variety of fundamental ways:

- Improve past debate formats;
- Strengthen collaboration with media and civil society groups;
- Train local organizers and impartial moderators;
- Provide event security;
- Negotiate with candidates and broadcasters;
- Organize voter education activities to increase the impact of debates.

Debates help focus candidates and campaigns on substantive proposals and hold leaders accountable on pressing issues.

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They also provide candidates with the opportunity to publicly commit to peaceful elections, including agreeing to accept election results or using legal channels to resolve election disputes. The Foundation views effective candidate debates as an important tool to promoting democracy, good governance and rule of law.

USAID HIGHER EDUCATION SOLUTIONS NETWORK

In 2010, the Foundation established the Chair on Conflict and Development in the Department of Agricultural Economics at Texas A&M University. This paved the way for the selection of the university as a member of the USAID Higher Education Solutions Network in 2011, and the creation of a "development laboratory." The laboratory was jointly funded by the Foundation and USAID in 2014. It focuses on the intersection of conflict and development, improving the efficiency and impact of development projects in conflict-affected states. Over the past four years, it has provided partners in the DRC and Latin America with access to data, analysis and expertise on issues of food security and conflict mitigation. Below are a few of the projects and initiatives funded by the lab.

DEMOCRATIC REPUBLIC OF THE CONGO

Conflict and Development Research Grants Initiative

Part of the laboratory's work has been to establish a competitive research grant in the DRC for projects that seek to strengthen the collaboration between academic and governmental institutions in development work. The lab partnered with the Conflict and Development Foundation, which is currently facilitating the implementation of the first rounds of grants, awarded in 2016 to three Congolese scholars as well as reviewing the 22 applications submitted in 2017.

Congo Peace Center

The lab also partnered with the Conflict and Development Foundation to fund programming at the Congo Peace Center. Built by the Foundation, the Center operates as a Congolese institution fostering inclusive governance and development. Some events hosted in this space over the course of this grant include a rural microfinance conference, a climate change conference, a criminology conference and the celebration of the International Day of Peace.

SOUTH & CENTRAL AMERICA

Learn, Grow, Eat, & Go! Program: Promoting Teamwork, Inclusion, and Reducing Bullying Behaviors in Kids through a Garden Education Program

The "Learn, Grow, Eat & Go!" program, a collaboration with the Conflict and Development Foundation, was a oneyear effort designed to engage 500 Mayan schoolchildren living in El Tejar, Guatemala, to discuss the role that hunger plays in violent behaviors, such as bullying and exclusion. Through gardening workshops, the program taught children about horticultural sciences and nutrition, building positive social relationships and responsibility. Participating youth also explored the benefits of a healthy lifestyle through physical activity and healthy eating. Those who exhibited aggressive behaviors when hungry were given strategies both to cope with the feelings that led to violent outbursts and to cultivate stronger relationships with their peers.

Reduction of Violence through Youth Engagement in Agriculture

The Center on Conflict and Development partnered with the Conflict and Development Foundation, Food for the Poor, and the New Horizons for the Poor Foundation in El Salvador to study the effects that engaging at-risk urban youth in hydroponic gardening could have on reducing community violence. The project attempted to address many identified risk-factors including hunger, social inclusion, family integration and mental health. The more than 1,000 students who participated worked together to harvest nutrient-rich crops, and also took part in community reflection dialogues, interactive workshops and cultural activities. Around 20 youth and their families also had access to therapy and family counseling through the program. At the end of the project, young people were less likely to engage in criminal activity, and the food security and nutrition of youth improved significantly.

Effectiveness Trial and Promotion of Quality Protein Maize (QPM) in Guatemala

Quality Protein Maize (QPM) is a biofortified, non-GMO corn with higher than normal nutritional value. Because many Guatemalans rely on maize for 70 percent of their diet, a more nutritious variant of the crop could prove to be highly beneficial. This program, a collaboration with the NGO Semilla Nueva, studied the effects of QPM on malnutrition in rural Guatemala, and examined the use of social marketing as a tool to increase consumption. Unfortunately, prolonged drought caused an unexpected loss of maize harvests and led to inconclusive findings on the effects of QPM on childhood growth. However, the program did find social marketing to be a powerful tool in increasing consumer demand for QPM.



Maize is a major food crop among smallholder farmers in Central America. Guatemala suffers from high rates of malnutrition, with almost half of its children chronically malnourished, the sixth-worst performance in the world, according to UNICEF. A Foundation grant in Guatemala supports the breeding and promotion of non-GMO, biofortified maize to improve the nutritional value of this staple crop that comprises 70 percent of the average Guatemalan diet.

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Photo: Jeannie O'Donne

CONFLICT MITIGATION

POST-CONFLICT DEVELOPMENT: DEMINING IN COLOMBIA

After decades of war and years of negotiations, the government of Colombia signed a peace accord with the Marxist guerrilla group the FARC in December 2016. This historic move ended over 52 years of armed conflict— which left over 200,000 people dead and 7.4 million forcibly displaced—and signaled a new era of peace and reconciliation for the country. Continued peace in Colombia will depend on quick and visible progress towards implementing the peace agreement negotiated with the FARC. Recognizing this, the Foundation provided \$38 million to support Colombia's humanitarian demining commitments in 2017.

Colombia is second only to Afghanistan in the concentration of landmines and the number of annual casualties. Notably, 2016 marked the first year since 2000 that Colombia reported fewer than 100 annual casualties. As the only Latin American country where rebels employed the use of landmines as a weapon of war, Colombia has seen 11,000 victims of antipersonnel mines-40 percent of whom are civilians. Antipersonnel mines not only create lasting harm for victims and their relatives, but they also affect entire communities. Their widespread presence in Colombia has triggered forced displacement, confined inhabitants to constricted spaces of mobility, limited rural farming and subsistence, and even caused a decline in school attendance. By strategically mining areas, guerrillas exerted control over local residents and impeded access to illicit crop fields and camps by law enforcement and other armed groups. Currently, 500 Colombian municipalities are still believed to be contaminated by landmines, but as a result of the peace accords, demining groups are now able to access land previously deemed "off-limits" because of violence.

The government ramped up its efforts to demine as well as took in increasing foreign aid and NGO presence to help in its efforts. This was evident in the creation of the Humanitarian Demining Brigade, with 5,000 troops contributing to the mission of demining Colombia. Foundation Chairman and CEO Howard G. Buffett and General Alberto Mejia, General Commander of the Military Forces of Colombia, observe a demonstration by the Colombian military's Humanitarian Demining Brigade in Planadas, Tolima, Colombia. Colombia is one of the most heavily mined countries in the world due to the 50-year conflict between the government and the FARC. As part of its historic peace agreement signed in late-2016, the government has committed to being mine-free by 2021. The Foundation has provided \$38 million to date in support of these efforts.

Through non-technical and technical surveys, and through manual, mechanical and canine demining, they work towards a goal of eradicating all landmines by 2021, which will allow displaced populations to return home, will provide access to land restitution and will return land for communities to use safely and productively.

The Foundation's support to the Humanitarian Demining Brigade, made through grants to Colombia's Presidential Cooperation Agency (APC-Colombia), will increase the capacity of the Humanitarian Demining Brigade to focus on effective and complete demining in 17 priority municipalities in the departments of Antioquia, Caquetá, Huila, La Guajira, Meta, Nariño, Tolima, Valle del Cauca, and Putumayo. This includes funding for equipment, emergency services, communications, technology and training, among others. Ultimately, these efforts will set the conditions for further development in the communities: services, roads and other infrastructure, and, above all, the reconstruction of the social fabric and the return of trust in state institutions.

"Colombia has one of the highest rates of land mines in the world. We must remove these threats to communities as an essential first step to lasting peace. We are pleased to partner with the government of Colombia to remove these inhumane remnants of five decades of conflict."

-Howard G. Buffett



THE POWER PLANTS THAT MAY SAVE A PARK, AND AID A COUNTRY

Written by Amy Yee

VIRUNGA NATIONAL PARK, Democratic Republic of Congo—On the verdant savanna of Virunga National Park, a herd of elephants clustered near an umbrella-shaped acacia tree to seek shelter from the blazing morning sun. From a Cessna far above, the giant animals looked like brown-gray miniatures.

Emmanuel de Merode, the director of Virunga National Park, piloted the plane. He wore a Virunga park ranger uniform and had his green beret tucked into the shoulder of his khaki shirt. Mr. de Merode flew over the dazzling 50-mile-long Lake Edward, then descended to a grassy airfield flanked by palm trees.

On this day, the flight was his commute. "It's the best job in the world," he said.

Mr. de Merode was visiting a small hydroelectric power plant—built more than four years ago with an investment from the European Union—that has lofty goals. It powers a soap factory, providing jobs and a market for local palm oil. It supplies electricity to homes, reducing the need to illegally chop down Virunga's trees to make charcoal. Ideally, it will spark entrepreneurship among carpenters, tailors and others whose businesses struggle to exist without electricity.

In short, the tiny power plant is crucial to an ambitious attempt not only to protect Virunga—Africa's oldest national park—from threats including armed rebels, deforestation and oil prospectors, but to jump-start the local economy and potentially help stabilize one of the world's worst conflict zones.

The challenges are immense.

In the past two decades, a civil war and feuding insurgents in the eastern part of the Democratic Republic of Congo have resulted in the deaths of 5.6 million people, making the ongoing conflict the deadliest since World War II.

Another hydroelectric plant—funded largely by Howard Buffett, a son of the billionaire businessman Warren Buffett—began operating nearly two years ago on the southern edge of Virunga, and four more are planned near the park. But most basic services and infrastructure in eastern Congo are crude or nonexistent. Only 3 percent of the region has electricity. Across the entire country, which is the second-largest in Africa and the size of Western Europe, there is scarcely 15 percent electrification for a population of 80 million. This is a problem across the continent. Low electrification rates "hamper Africa's development," the United States Agency for International Development said in a report last year.

Mr. de Merode, who is a Belgian national (and a Belgian prince), became the director of Virunga in 2008, the first non-Congolese to hold such a position. He was born in Africa and has spent most of his life here.

Work conditions are treacherous. In 2014, he was ambushed near Virunga and shot in the stomach and legs. The attackers were never found, and their motive was unclear, although many groups oppose Mr. de Merode's conservation efforts, which disrupt the status quo.

The assassination attempt didn't deter him. "People who wear a uniform get injured all the time," Mr. de Merode said. "This is part of my job. I would regret it terribly if I gave up."

VOLCANOES, HIPPOS, WARS

There's much at stake in Virunga and eastern Congo. The park itself is a Unesco world heritage site covering an area roughly double the size of the state of Rhode Island and Africa's most biodiverse national park. A third of the world's remaining 800 mountain gorillas live in its forests, not far from Mount Nyiragongo, an active volcano topped with one of the world's few surreal lava lakes. Hippos wallow in Virunga's rivers, and the park is home to 2,000 plant species, as well as elephants, antelopes, warthogs, giraffes and the rare, elusive okapis.

But the region is under intense pressure from a growing human population, and Virunga could provide land, food and fuel that those people desperately need. That puts its mission to preserve habitat for gorillas and other creatures, however noble, on a collision course with practicality.

Mr. de Merode makes the case that the park is more valuable as a protected area. The economic value of Virunga was estimated at \$48.9 million annually in a 2013 report by the World Wildlife Fund. Under ideal circumstances, its value has the potential to reach \$1.1 billion a year, including direct uses such as tourism, fisheries and hydropower. It could also be the source of more than 45,000 jobs.

However, deforestation is one of Virunga's biggest threats. For cooking fuel, 97 percent of people living near the park rely on charcoal made by chopping down the park's trees and slowly roasting them into carbonized chunks.

The practice is illegal. Yet Congo's charcoal industry is worth an estimated \$35 million and helps fund deadly insurgents who hide in Virunga's forests, according to the Enough Project, a Washington nonprofit that focuses on Africa. In theory, hydropower could reduce reliance on charcoal cooking fuel, although this is easier said than done.

Cutting down forests also contributes to global warming by releasing the carbon stored in trees. Deforestation has contributed about 11 percent of the world's greenhouse gases.

CONFLICT MITIGATION

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Virunga plays an important role in offsetting carbon emissions. The park and plantations in the province are second only to the Amazon in terms of total forest area, according to the W.W.F.

After the country gained independence from colonial Belgian rule in 1960, corruption, political instability and bloody conflict wracked the country, which is one of the poorest in the world. It was ranked 176 out of 187 countries on the United Nations' Human Development Index in 2015.

Roads, electricity and running water are scant. Without this basic infrastructure, economic growth is severely stunted. Electricity is necessary to run grain and lumber mills, to process palm oil or fruit juice, to operate cement plants and brick factories—to build pretty much anything modern.

In the past, hydroelectric power plants funded by Catholic charities or other nonprofits weren't properly maintained. And there were some scams in which businesspeople collected money from villagers, then ran off with the funds.

But eastern Congo has enormous agricultural potential. The country has one of the world's largest areas of arable land. It "has the potential to become the breadbasket of the entire African continent," according to the International Food Policy Research Institute.

However, farmers have a hard time eking out a living because they lack modern agricultural resources such as quality seeds and fertilizer, not to mention roads, cold storage and other infrastructure to get goods to market. And agribusinesses cannot run without electricity.

The country is so ill-equipped to deal with its farming potential that most of its agricultural goods are processed outside the country. All its cooking oil, for instance, is imported.

And palm oil from Congolese farmers is exported to neighboring Uganda, turned into soap, and then imported back to Congo at higher prices.

Tourism is another way Congo could create jobs and boost its economy. Mountain gorillas reside in only three countries: Rwanda, Uganda and the Democratic Republic of Congo—and tourists pay good money to see them. To see Virunga's gorillas, park permits and transportation alone cost about \$600.

But violence has limited the potential here. During a burst of war in Congo between 2004 and 2009, insurgents invaded and occupied Virunga.

Tensions eased, and tourism surged in 2010 and 2011, when Virunga's new luxury lodge opened. That year, Virunga hosted 5,000 tourists and earned more than \$1 million. But then, in November 2012, the rebel group M23 took over Goma, the provincial capital of North Kivu, where the lucrative gorilla and volcano tourism is based. For more than a year, Virunga was closed to visitors.

The park reopened in January 2014 amid fragile stability. An alphabet soup of a dozen rebel groups and militias still plague Virunga, which they use as a hide-out along the country's porous, unpatrolled borders with Rwanda and Uganda.

Most international governments have issued travel warnings for eastern Congo. Tourists must travel to, from and within the park with armed rangers. Still, tourism for Virunga National Park alone earned more than \$2.4 million last year. Thirty percent goes to communities surrounding Virunga, and the rest is divided between Virunga's conservation and funding for the country's national park service.

Tourism affects locals, such as Tumaini Boscon, who lives near the Nyiragongo volcano.

The tall 23-year-old makes about \$30 a month farming beans, potatoes and cabbage. When tourism returned to Virunga, he started working as a porter carrying tourists' backpacks up the volcano for about \$11 a trip.

The five-hour trek is exhausting, but with his earnings, Mr. Boscon bought some goats. A \$50 tip from one generous tourist allowed him to buy a small piece of rocky land.

Other than farming and tourism, "there's no hope of other jobs," Mr. Boscon said. He wanted an education, but there was no school in his area when he was growing up during Congo's civil wars.

Isaac Sadiki, 24, was the only volcano porter with a university degree. He admitted some might find his work humiliating because he's a college graduate. But, he explained, "It helps me earn some money. I cannot be part of militia." Like most rural people here, he has been a victim of violence. Mr. Sadiki was 8 years old when rebels attacked his family at their home near the Ugandan border and brutally beat his mother.

Mr. de Merode argues that jobs would prevent idle, poor young men from joining militias. Economic development is "the only way of overcoming conflict," he said.

However, that is an idealistic vision that doesn't always work.

"Peace without economic development is impossible, for sure, but economic development does not automatically build peace. It can even undermine it," Phil Vernon of the advisory group International Alert said in a published interview.

And of course, there are the day-to-day challenges of running power plants in an unstable, poor and corrupt country. The two existing plants offer lessons in trial and error. Originally published by The New York Times on August 30, 2017

A SOAP FACTORY IN NEED OF POWER

Mr. de Merode was flying to Mutwanga, a small town outside Virunga's northern border. There, a modest concrete building houses one German-made turbine spun by the coursing waters of the Butau River.

Outside, where the distant white glaciers of the Rwenzori Mountains loomed in ghostly silhouette, Mr. de Merode strode along a narrow channel that diverts water into the powerhouse. This \$2 million pilot plant is a run-of-the-river design, which means it does not use dams and minimizes the impact on the environment.

A couple miles away, at the other end of town, is Sicovir, a soap factory that opened in April 2016. It is the first and only factory in the area—and the only source of formal employment here.

Leonard Maliona is Sicovir's managing director, and his family has invested in the factory. A young Congolese man in his early 30s, Mr. Maliona walked across the floor of the gleaming facility and pointed out boilers and pressing machines that squeeze oil from palm kernels. The waxy smell of soap permeated the air. Sicovir has the potential to produce tons of soap in one day. A hundred people work here.

For all its promise, though, Sicovir is hampered by a lack of electricity. The water levels of the Butau River have been lower than projected, in part because of unexpectedly lower rainfall. So the power plant generates less than onequarter of its promised 380-kilowatt capacity. It's enough to give electricity to more than 500 households in town (more than 2,500 people), the local hospital, streetlights and 40 small businesses, such as hair salons and phonecharging kiosks. The power it generates is a boon to an area where the hospital once used flashlights.

But it is not enough to run Sicovir's heavy machineryoilers, steamers, presses. As a result, the factory relies on diesel generators.

Selling Sicovir's soap is also a challenge. Bad roads make it difficult to collect palm oil from local farmers. Businesspeople are targets for extortion and robbery. Running the factory is "very stressful," Mr. Maliona said.

He believes that more and stronger businesses could harness political power to get things done. "If more businesses are created, we can create a lobby group," Mr. Maliona said. "If you have 20 companies paying taxes, we can say, 'We want the road done."

Mr. Maliona sobered as he described that unproven theory. But when asked why he started the factory, he brightened: "The joy of producing. When you see the first soap come out, you think, 'Now we can do it.""

'NOW I CAN BUY PANTS'

Hundreds of miles away in a town called Matebe, outside Virunga's southeast corner, sits the park's second run-ofthe-river plant, which began operating in December 2015. It can generate more than 13 megawatts of electricity from the much larger Rutshuru River. The hilly landscape means a taller vertical drop and more energy when the river water is funneled through three turbines.

One morning, Matebe's power plant bustled with activity. Hammers pounded and saws shrieked. The plant employs more than 600 people.

Engineers built the plant with about \$20 million from Howard Buffett. Mr. Buffett, who has long been interested in wildlife conservation, approached Virunga out of the blue. "I didn't even know who he was," Mr. de Merode said.

Mr. Buffett first came to the region in the mid-1990s to see mountain gorillas in Uganda. Wildlife brought him here, "but the everyday challenges the people faced—and the conflict—captured my attention," he wrote in an email. Also, he added, "I like to work in the places that everyone else thinks are too risky."

Jobs are precious in this area, where there are few schools. "Every day people are queued up outside for work," said Sandrine Eeman, the engineer in charge of networks for Virunga Energy, the park's private utility division. Human resources were a challenge, but engineers and technicians were hired from different parts of Congo, and locals were trained and hired for jobs requiring less expertise.

Jackson Bakinahe Ndemeye, 25, started as a casualwage construction worker in 2014 and worked his way up. Today he helps maintain the valves that control water flow from the river.

Ndemeye has a 12th-grade education, far higher than most people in the area. "There aren't many job opportunities," he said. Since he started working at the power plant, he has learned to handle machinery and pour concrete. And with his steady income, Mr. Ndemeye helps send his younger siblings to school. He added, "Now I can buy pants if I want."

Although this power plant was built under budget and ahead of schedule in less than two years, it has its share of challenges. Transmission and distribution lines are still being built, so only 2.5 megawatts of Matebe's 13-megawatt capacity are being used. Its electricity primarily powers the plant's offices and facilities, Virunga's tourist lodge and grounds, as well as rural streetlights and homes in some nearby villages. That's due partly to funding. Virunga needed money to build 20 miles of power lines to the city of Goma. A year ago, CDC, the private sector arm of Britain's Department for International Development, pledged \$2.5 million for that next phase.

Transmission and distribution, and getting customers to pay, are some of the biggest challenges for energy companies in developing countries.

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So far, some 3,000 households have paid to connect to Matebe's power plant, which will deliver electric service for more than 15,000 people. At least thirteen villages have streetlights, and more were scheduled for connection this spring. Virunga aims to eventually connect 4,000 households to hydroelectricity.

It costs a relatively hefty \$292 to connect to the electrical supply and then \$5 to \$10 each month for 3 to 10 amps of electricity—enough to power a few light bulbs and charge mobile phones. It's pricey for a rural family, but in the long run, the electricity is cheaper than conventional fuel.

"People are poor, but energy is not as expensive as you imagine," said Ephrem Balole, the chief executive of Virunga Energy. For cooking, the average low-income rural household each month uses two sacks of charcoal, which cost \$15 each. Families spend at least \$5 each month for kerosene used for lighting.

Michael Karonkario, 39, lives in a small house in the village of Ruchiro, where he is a caretaker of the area's mobile-phone antenna. He was one of the first in the village to connect to the new electrical service. His six children can now study at night, he said.

There are some concerns that people are too accustomed to cooking with charcoal and will be reluctant to switch to electricity. So Virunga plans to give free electric hot plates to people who connect to the supply. Mr. Karonkario, for one, didn't want to wait, so he got his own hot plate. It "heats up faster than charcoal and doesn't make the kitchen as hot," he said.

'IT'S NOT ROCKET SCIENCE'

Giving rural people access to electricity is part of Virunga's mission, but only a small part of its business plan. The medium and large businesses are crucial to making Matebe's hydropower financially sustainable. "Building the plant is the easy part," said Ms. Eeman, the Belgian engineer who helped oversee Matebe's construction. "Entrepreneurship is the bigger challenge."

Virunga Energy has received about 100 applications from local businesses who want electricity to run corn, cassava and sugar mills, juice and confectionery factories, garages and welding services, beauty salons, bakeries, carpentry workshops, brick works and more, said Mr. Balole of Virunga Energy.

Some applications are from existing small businesses that want to expand, while others are just starting. Entrepreneurship is a fledgling concept in this conflict zone, which is accustomed to receiving aid money, but Mr. Balole isn't worried about that. "Businessmen are skilled," he said. Some nuns have already started a sugar cane plant, he pointed out.

Harnessing mass demand in the city of Goma is a bigger task. Its people now use just 5 megawatts of electricity not enough for this city of one million. Power outages are common.

Goma needs 40 to 50 megawatts, Mr. Balole reckoned. But the city's electricity is controlled by the government utility company, and Virunga Energy could not get a distribution agreement for the city.

To get around that hurdle, Virunga Energy organized a consortium of large businesses in Goma to prepurchase \$2 million of electricity. They include cement, coffee and mattress factories, cold-storage facilities, hotels and others. These businesses want a steadier, more reliable supply than the shaky government one, whose irregular currents destroy machinery and equipment, Mr. Balole said.

That money is helping to build power lines to Goma along an inhospitable dirt road, which is rutted with volcanic rock. Virunga Energy received another boost for that project with CDC's investment last year. The 10-year loan is the province's only development investment since the mid-1980s.

If the rollout goes well, CDC will loan another \$6.5 million for construction of two new run-of-the-river hydroelectric plants just outside the park that would generate 35 megawatts. For these plants, Howard Buffett is funding approximately \$39 million and the Belgian government \$4 million.

Mr. Buffett increased his funding after other donors fell through. When that happened "it basically underscored the point that it was going to be either us or no one," said Mr. Buffett. "I believe that is the role of philanthropy—if philanthropists can't be the risk takers, who can?"

Virunga's unusual management team was also a positive factor. "A company that's running a national park founded an electricity company—it's incredible. Hats off to them," said Martin Illner, an investment director at CDC.

There is a delicate balance between pulling in big customers who make the hydroelectric power plants financially sustainable and connecting rural households whose demand for electricity and ability to pay is often overestimated. "We want the households to benefit, but power companies typically make a loss connecting them," said Richard Charlton, an investment manager at CDC. "How you get that mix is really important."

Then there are the daily challenges of running a business in Congo: dealing with government officials who demand bribes, getting bureaucratic land concessions and licenses, working with everyone from local chiefs and villagers to investors and donors.

"You can't imagine how heavy it can be," said Mr. Balole about the stresses of his job.

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"You can't imagine how government structures can kill initiatives with a lot of taxes, unclear procedures and harassment. Someone who's not strong can flee away. This is not an enabling environment."

As Mr. de Merode piloted the Cessna south to return to the park's headquarters, he recounted some of the lessons he learned as a park director who unwittingly spearheaded energy and business development. "If you spread yourself thin, you do it quite badly," he said. Before the current business plan, Virunga also built health centers and schools. It now leaves that work to the European Union, nonprofits and other groups.

The list of Virunga's complex challenges is long: illegal trafficking of charcoal and fish, corruption, political instability, rebels, armed conflict and violence (some 160 rangers have been killed while on duty over the past decade; three died this month during an attack by a militia group).

Yet despite challenges like these, Mr. de Merode remains understated. "We learned from trial and error," he said. "It's not rocket science. We're just building a utility company."



The Foundation provided funding for four hydroelectric plants in North Kivu, DRC, to utilize the rivers of Virunga National Park for the benefit of area populations. Matebe, a 13.6 MW plant (pictured above) was completed in December 2015. Funding to construct Lubero, a 12 MW plant, Rwanguba, a 33 MW plant, and funding to expand the Mutwanga hydroproject from 400 kw to 1 MW was granted in 2015 and 2016, as part of the Foundation's nearly \$80 million financial contribution to support peace, security, conservation and development in Virunga National Park. Our work in Virunga is part of an overall \$545 million investment by our Foundation in Africa's Great Lakes region and complemented and supported by an additional \$50 million in grants in agriculture, infrastructure, emergency relief, peacebuilding, election planning and conservation in North Kivu over the last 20 years.

PUBLIC SAFETY



Public safety is a cornerstone of community development. Effective and well-supported law enforcement and public safety agencies are essential to creating thriving neighborhoods. To that end, we support and partner with a number of law enforcement agencies in the communities where we have employees and/or operations, including Macon County, Christian County and Shelby County in Illinois, and Cochise County in Arizona. Our wide-ranging public safety grants in 2017 include the Southeast Arizona Regional Communications Center in Cochise County; the Macon County, Illinois Dispatch Center; and donations of life-saving Narcan for law enforcement agencies in Arizona, Illinois and Nebraska.

"Howard is not only an ambassador for the United Nations, he's an ambassador for the Macon County Sheriff's Office and the community that we serve," Schneider said. "He is always looking for better ways to improve our department and the community." —Tom Schneider, retired Macon County Sheriff

REGIONAL COMMUNICATIONS CENTER

The Foundation owns farm and ranchland for agricultural research and habitat restoration work in Cochise County, Arizona, along the U.S. border with Mexico. Border areas like Cochise County face unique public safety challenges due to cross-border drug smuggling and human trafficking. In an effort to mitigate some of these challenges, the Foundation funded the Southeast Arizona Communications Center (SEACOM) in 2016. The construction of this regional communications center will provide both data and radio services, and will ultimately allow for all public safety agencies to be dispatched out of the same facility. Resources have also been allocated to designing sub-systems, ordering equipment such as radios, dispatch consoles, and cameras and installing a new radio tower. The development of this center will subsequently lead to improvements in resource management and overall security in the area. Construction began in May 2017 and was recently completed.

MACON COUNTY DISPATCH CENTER

In 2017, the Foundation supported the funding of a new Macon County dispatch center. Located south of Decatur, Illinois, where the Foundation is headquartered, this facility will house the Central Illinois Regional Dispatch Center. It will serve as a joint communications facility handling the managing, staffing and equipment at the call center serving Macon County with the capacity to expand to other counties in the future.

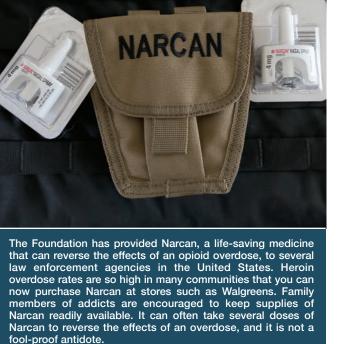
The current call center dispatches city police and fire departments, Macon County Sheriff's Office, 911 as well as rural fire and police departments. The project will also support broader community development in the Decatur area by creating jobs, supporting local businesses and enhancing the quality of life and public safety of the region.

NARCAN: THE OPIOID ANTIDOTE TO SAVE A LIFE

In 2016, over 64,000 drug overdose deaths were reported across the country. Over half of these deaths were attributed to opioid drugs. These statistics indicate a worsening national trend in the drug epidemic. It is also reflective of trends in local communities.

The Illinois Department of Public Health reported a more than twofold increase in the number of deaths in Macon County from opioid overdoses over the last four years. Six deaths were reported in 2013, while 14 were reported in 2016. Macon County first responders have reported significant concerns over the rise in overdoses as a result of the spread of fentanyl—a deadly synthetic painkiller used as a filler for heroin that is 50 to 100 times more powerful than morphine.

Narcan has become a critical first-line response to combating opioid overdoses. Narcan is the brand name for naloxone, a drug that reverses the effects of an opioid overdose. From 1996 to 2010, Narcan is credited with reversing over 10,000 overdoses at a 93 percent success rate.



SHERIFF

Although the Foundation advocates for long-term prevention, treatment and disruption of supply as the best ways to combat the opioid epidemic, Narcan is fundamental to saving lives in emergency situations. In 2017, the Foundation donated funds for the purchase of Narcan for the Cochise County Sheriff's Office, Decatur Police Department, Macon County Sheriff's Office and the City of Omaha police department.

PUBLIC SAFETY

NON-STRATEGIC GRANTS



The Foundation provides periodic support through nonstrategic grants to the communities where we have operations and employees. These grants are typically onetime and based on ideas identified by our Chairman and CEO.

In 2017, these contributions included a permanent exhibition to the Children's Museum in Decatur, Illinois, to highlight the importance of law enforcement officers; a donation to the Boys and Girls Club to support afterschool academic programs; and a series of grants to boost economic development and quality of life in Decatur, Illinois, where the Foundation is headquartered.

HEROES HALL

Established over 25 years ago, the Children's Museum of Illinois strives to foster art and science activities for area children and to supplement the education provided by under-resourced public district schools. The museum services 65,000 visitors a year in a 20,000-square foot facility and is viewed as a positive contribution to area residents' quality of life.

In 2017, the Foundation agreed to support a 7,000-square foot addition to the museum to host permanent exhibitions that highlight the heroic work of law enforcement officers in their communities. Through play, engagement and instruction, the museum seeks to educate visitors about the work and training of law enforcement officers. The central mission of the exhibition is to bridge the gap between community members and the police officers who dedicate their lives to protect and serve them.

The museum is partnering with the Macon County Sheriff's Office, the Decatur Police Department and the Decatur Park Police to develop the content. Programming space will allow for the regular presence of these agencies at the museum. The Foundation hopes that the addition of Heroes Hall will foster greater respect and understanding between law enforcement and the communities they serve.

BOYS & GIRLS CLUB

The Boys & Girls Club of Decatur, Illinois, works to empower more than 1,000 vulnerable young people annually to reach their full potential as productive, responsible citizens. The organization provides educational programs designed to help change the culture of poverty for at-risk youth and their families. Its goals include:

- Eliminating barriers to graduation for at-risk students;
- Increasing self-sufficiency;
- Increasing the number of youth making healthy decisions;
- Preventing the cycle of violence in the lives of at-risk youth;
- Providing shelter, food and care.

The Foundation's support of the Boys & Girls Club will help students achieve academic success by:

- Providing resources to help with homework;
- Supplying one-on-one technology for Club Members;
- Offering weekly STEM and coding programs;
- Holding high-yield learning activities.

The Foundation funds vans for transport, computer servers, a "teen hangout" space, uniforms and program supplies.

The ultimate goal of this investment in the Boys & Girls Club of Decatur is to promote and enhance youth development by fostering a sense of self-confidence, usefulness, belonging and influence.

TRANSFORMING DECATUR

The Foundation has been headquartered in Decatur, Illinois, since its establishment in 1999. A rural community of 72,700 located in central Illinois, Decatur has experienced what many rural towns across the United States are experiencing: rising unemployment rates, relocation of key employers, a shrinking labor force and a declining population.

Over the last two decades, the Foundation has invested approximately \$55 million in grants to Decatur and the surrounding Macon County area in an effort to address some of its economic challenges. Our investments include support to local law enforcement agencies through equipment and training facilities; community development projects, including funding to clean up abandoned homes and buildings; and other grants to improve area infrastructure, retain and attract employers, and improve quality of life for area residents.



The Foundation provides support to communities where it operates and has employees. Foundation Chairman and CEO Howard G. Buffett unveils renderings for a community park project in Decatur, Illinois, where the Foundation is headquartered. The project was originally a co-funding commitment with the State of Illinois; when the State failed to meet its commitment, the Foundation provided the additional support to complete the project.

CLOSING THOUGHTS



This year's Super Bowl Sunday was a memorable one for me, although I missed watching most of the game. I got a call seven minutes into the second guarter that a 21 year-old Decatur woman had overdosed on heroin and was in the emergency room at Decatur Memorial Hospital (DMH). She was fortunate to be alive. It had taken four doses of the overdose reversal drug Narcan to get her breathing again. I joined a member of our Sheriff's Office in the Emergency Room to encourage the woman to go directly into a treatment facility, which she agreed to do. It's a conversation I find myself having more and more these days.

I became Sheriff of Macon County, Illinois, in 2017, and like most U.S. law enforcement leaders today I have a front-row seat to a national crisis. Macon County, like virtually every county in every state in the nation, is struggling with soaring numbers of opioid addicts, as well as individuals using cocaine, methamphetamines and other dangerous drugs. Today's addicts defy stereotypes: they are young, middle-aged and old, and both men and women; some are poor, others upper middle class; many are employed and some are retired; some never touched drugs for most of their lives but became hooked on prescription painkillers and then switched to heroin or fentanyl illegally sold on the street. In the days before and after the Super Bowl, I also encouraged several others to seek treatment: a 47 yearold married factory worker, a 27 year-old former U.S. Marine, and a mother of two children who clearly loves her children very much, but who lost custody of them due to her cocaine addiction.

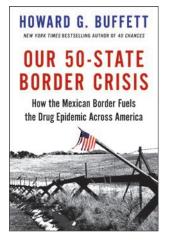
As Sheriff, I am focused on trying to find and arrest the drug dealers bringing these poisons into our community. But I am among the growing number of law enforcement leaders who believe that we cannot arrest our way out of this problem by putting addicts in jail. What I have learned in conversations with addicts like the people I've mentioned is that there is no punishment, no threat of jail time, that is strong enough to rewire the brain chemistry driving their addiction.

The desire for a drug becomes all-consuming, ruining the life of the addict and his or her family. leading to crimes like theft and prostitution to get money for more drugs, and risking death from overdose on a daily basis.

The young woman at DMH had several prior convictions for theft and burglary driven by the need for money to buy drugs. She also admitted to me that at one point a dealer put 1.5 grams of heroin on the table and offered to trade it for sex, and she was so desperate for a "fix" she agreed; from then on trading sex for drugs or money to buy drugs became a regular activity. Prior to my meeting her, she had overdosed three previous times, and she told me she had rescued about 20 other addicts from overdoses.

Sad as it was to hear her experiences, they did not surprise me. Other addicts have told me that when their bodies go into withdrawal they will do "anything" to get heroin. One woman told me point blank: "I would kill for it." I've met several women who have lost custody of their children because of their addictions. Most have said they never thought they would do these things; now, they say they just can't stop.

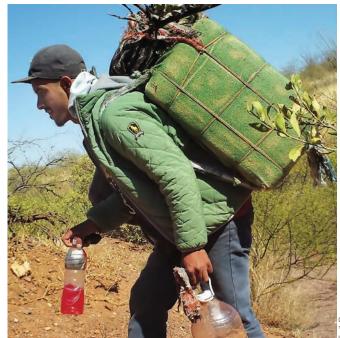
Given the history of our Foundation's work in the developing world, where we have invested in large-scale projects to support food security and livelihood development, I know



my decision to take on the Sheriff's job in 2017 was a surprise to some. That's one reason why this year I've written a book titled Our 50-State Border Crisis (Hachette, 2018) in which I've explained my interest in law enforcement and the rule of law. The book is about my conviction that we must increase the security of our borders because it is closely connected to the drug epidemic across our country.

What might appear to be distinct and separate activities are, in my view, intertwined. In the book, I explain that I see the suffering of individuals like that young woman at DMH as part of a much larger global picture. The drugs that nearly killed her are part of a criminal network that is destabilizing our entire hemisphere.

Today, opioid overdoses are killing more Americans each year than breast cancer and annually take the lives of more than 20 times the number of people who died on 9/11. And most of the illegal drugs, in excess of 90 percent, are coming from or through Mexico and being smuggled across our borders.



Foundation ranches in Cochise County, Arizona, see regular traffic by drug "mules." As border patrol increases the use of border security technology, drug "mules" adapt by using military camouflage, techniques that disguise their tracks, a variety of communication methods and scouts located on both the U.S. and Mexican sides of the border to avoid detection and apprehension. The individual in this photo is likely hauling marijuana given the size and shape of the bundle he is carrying.

CLOSING THOUGHTS

The Mexican drug cartels are waging what I call slowmotion terrorism—depleting our resources and killing us from within. Their strength is also corrupting and undermining the rule of law throughout Mexico—our neighbor, our ally, our major trading partner.

Some see the lethal drugs in Macon County and other U.S. cities and think of it as a "local" crime issue. As Sheriff it is my job to organize our law enforcement agency to both enforce the law and shut down criminal drug dealing. But my experiences along the southern border at our farms and ranches in Arizona and Texas, as well as our Foundation's extensive work through the years in Mexico and in Central America, mean that I also have seen the dynamics far from Macon County that are fueling drug smuggling, human trafficking and other threats to public safety across our country. I am convinced that we have to work across the whole of government, including international diplomacy and investment in peace and stability in those countries, to solve some of the most complex challenges we are facing.

The world becomes smaller every day, both because of improved transportation and because of increased access to the Internet. And despite many good things that those developments bring, there are negative consequences, too—consequences we cannot fully address with any kind of one-off solution. Our enemies are flexible and resourceful, and they smuggle drugs by land, sea and air—and they even use tunnels, submarines and drones. There is no wall with Mexico that can stop the flow of fentanyl or other drugs ordered online by customers in the U.S. who ultimately take delivery courtesy of the U.S. mail.

There is no open door policy and no magic comprehensive immigration reform bill that can adequately absorb all the desperate people fleeing violence and poverty in their home countries whose journeys help make the drug cartels stronger. Instead, our border security crisis calls for action across many sectors and levels of government.



(Above) In Texas, the Rio Grande River is the border between the U.S. and Mexico. These migrants are crossing from Mexico into the U.S. through our Foundation-owned farm, which includes over half a mile of frontage along the Rio Grande. (Right) A large group of migrants and likely drug smugglers from Mexico cross through a Foundation-owned ranch in the San Rafael Valley in Cochise County, Arizona. This is a common trafficking route because of its remote and difficult terrain, and the fencing, which is primarily comprised of low-lying vehicle barriers called Normandy fences, is easily navigated.

We must reduce demand for these drugs and help addicts get treatment; we must focus adequate resources on shutting down drug smuggling on the border and drug dealing networks in the U.S.; and we must look at how we can help stabilize and support the rule of law in Mexico and other countries. We must help these countries achieve a measure of peace and prosperity to reduce the pressure on tens of thousands of people to emigrate or flee gang-related violence.

These are some of the threads I talk about in my book, and after reading it I hope people will realize that working to improve food security in rural El Salvador is not just a charitable activity; it is an important component of our national security. In an increasingly global world, Americans will be safest when our neighbors are stable and strong and have faith in the rule of law.

In central Illinois, the citizens I serve in Macon County will be healthier and more productive when our borders with Mexico are far more secure than they are today, and when dangerous gaps in our postal system, our coastal security and our technology to examine cross-border cargo are addressed. Everything is connected in a networked world. I have seen many difficult, tragic and violent situations in the developing world. But speaking with that young woman in DMH on Super Bowl Sunday and seeing her agonizing battle with addiction reminds me that we cannot turn away from any suffering anywhere. All suffering diminishes not just the victim, but if it's ignored it weakens the society in which it exists. We cannot wall ourselves off from this reality. If there is one lesson we seem to have to keep learning and relearning in the United States, it's that if we don't address the desperation of people in other countries, their issues become issues for us as well.

- CLOSING THOUGHTS



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