

Focusing on What's Important

Year in Review

2018



2018 Year in Review

CAMINOS DE AGUA

Mailing Address

11 S. Green St.
Unit 1508
Chicago, IL 60607

Mexican Address

Allende #5, Colonia Insurgentes
San Miguel de Allende, Gto, México
CP: 37712

www.caminosdeagua.org

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A young boy with dark hair, wearing a white polo shirt, is looking towards a blue water tap on a stone wall. The tap is mounted on a blue cylindrical container. The background is a light-colored stone wall.

Letter From The Director

Dylan Terrell

Dear Friends of Caminos de Agua,

This was quite a year for us. Water issues continued to grow more severe – not only locally, but globally as well. More than ever before, this year we realized that we need to be more strategic, efficient, and above all, leverage partners at all levels in order to help provide safe, healthy water access for those who most need it. So, this year we grew leaner and leveraged our expertise and experiences to generate a far greater impact than our own budget would allow.

One of our major goals in 2018 was to promote rainwater for human consumption as the most immediately actionable solution that anyone can take to address the region's complex water quality and scarcity issues. We engaged every actor we could to take on the challenge. We worked closely with grassroots organizations and community coalitions, local and national NGOs, numerous government departments at all levels, international research institutions, and, for the first time, the *German Society for International Development (GIZ)* (see pg. 4).

Locally, we continued to work with grassroots partners like *Pozo Ademado Community Services* (see pg. 7) and *United Communities for Life and Water (CUVAPAS)* – a coalition of more than 20 rural communities in the most impacted regions who helped drive our most important project of the year (see pgs. 4-5). We worked with local organizations like *Casita Linda* and *Feed the Hungry* to implement rainwater solutions and identify water quality risks respectively. We continued our collaboration with *El Maíz Más Pequeño* and Henry Miller and Agustín Madrigal of *Salvemos el Río Laja* to impact government at municipal and state levels.

On the national scale, we worked closely with the *Commission on Habitat, Environment, and Sustainability* to help author several chapters in an upcoming book entitled: *Towards Compliance with the Human Right to Water in Mexico*. This collaboration brings together federal government agencies, academia, and civil society organizations to address the widespread water issues in Mexico, solutions, and public policy proposals. We also collaborated with the *National Public Health Institute* who utilized our water quality data to perform the first true water-related health studies in the region (see pg. 13).

This was an exciting and humbling year for our technical advances. Our 'Tech Team' was named a National Finalist for its work on *Aguadapt* – our groundbreaking water filter design that will provide safe drinking water in emergencies and adapt to a wide variety of water quality issues (see pg. 6). We took our arsenic and fluoride treatment systems to new levels. In fact, as I'm writing this, our team is about to flip the switch on our first community-scale arsenic treatment system. It was also a year of academic publications, major breakthroughs, and a few setbacks. Setbacks that pushed us and challenged one of our core philosophies. How did we fair? Learn more on pages 6-7.

We continued our collaboration with *Engineers Without Borders UK* and new partners at *SAFAD*, both of whom are supporting our work with talented, on-ground Technical Fellows through 2019. We also named our long-time friend and collaborator, Dr. Josh Kearns of North Carolina State University, our *Chief Technical Advisor*. The improvements



he made in our lab this year allow us to conduct tests in days instead of weeks – a major breakthrough that allows us to test quickly and inexpensively, yet comprehensively; capabilities few have.

We are grateful to have worked so closely with the communities of Terreros de la Concepción, Palo Colorado, Derramadero, La Vaciada, Pozo Hondo (see page 5), and the CecyTe High School to build **37 large-scale rainwater harvesting systems** – providing a lifetime of safe, healthy drinking water for for more than 100 families and several schools. This year, we focused on more comprehensive solutions in fewer communities. We developed and implemented new educational programs as well as our new *Monitoring & Evaluation Program* to ensure that our success goes beyond any given project and that our methods are analyzed – and improved on – over time. In the words of our years-long collaborator, Lucha Villafuerte of CUVAPAS,

“*we’re not just building [rainwater systems], we’re building community.*”

Learn more about how we work in partnership with communities on pg. 8.

We are very thankful for the continued support of the **Natural Health Research Foundation** and specifically **Dr. Joe Mercola** and Mercola CEO **Steve Rye** who have been paramount to supporting our major technical breakthroughs over the last several years. We are also excited to welcome and thank **The Gonzalo Río Arronte Foundation** who provided the support for our major rainwater harvesting projects this year.

While we welcomed so much new talent to our organization this year, it’s with a heavy heart that we had to say goodbye to my long-time partner, Jenn Ungemach. I am so excited, albeit undeniably sad, to see Jenn return to her true passion: the organic agriculture sector. Jenn realized the potential of Caminos de Agua so early in the game and was crucial in helping build Caminos de Agua into what it is today. Thank you so much Jenn for everything you gave to Caminos.

Moving into 2019, I am in awe of the growing problems and challenges that face us. But, I am both humbled and hopeful by the talent that surrounds me. I have a multidisciplinary team of truly brilliant minds who inspire as much as they execute. We are supported by an intricate web of community and grassroots partners, local volunteers, researchers, and advisors who all contribute immensely to our central mission of safe, healthy drinking water for those most at risk.



So, on behalf of the entire Caminos de Agua team, and our greater network, we sincerely thank all of those who made 2018 a better year for so many.

Saludos,

A handwritten signature in black ink, appearing to read "Dylan Terrell".

Dylan Terrell
Caminos de Agua, Executive Director

Strategic Alliances

Multiplying our effectiveness and impact by working through partnerships

Caminos de Agua has developed effective working relationships with NGO's, Universities, and Governmental Agencies who are aligned with our approach to confronting regional water challenges. Through these alliances, we are able to expand our network, take on more and bigger projects, bring in new expertise, and, in the end, take critically needed solutions to thousands more people.

In late 2017, concern over local water quality led the Mayor of San Diego de la Unión, a municipality located just north of us, to ask Caminos de Agua to conduct a study of their 28 rural wells. By January 2018, we assembled a team of researchers from Texas A&M University and the University of Guanajuato, plus our own water quality experts. The results showed some of the highest levels of arsenic we have seen to date - upwards of 10 times the World Health Organization limit in some wells. Armed with these findings, the Mayor broke ground on 90 large-scale rainwater harvesting systems in the most impacted communities by the end of the year. This project not only provides safe and healthy drinking water for these communities, but also serves as a model of effective action for others in the region.



Community members build a rainwater harvesting system on a Casita Linda home in the community of Palo Colorado. In 2018, we teamed up with Casita Linda to include these systems on their home construction projects.

In March, we took a similar approach to the *Guanajuato State Department of Ecology*. We were part of a team - assembled by long-time partners and rainwater harvesting leaders, *Isla Urbana* - and hired by the *German Society for International Development (GIZ)* to look at the economic and environmental impact of rainwater harvesting systems installed by the State Government. After inspecting and evaluating nearly 300 systems scattered throughout Guanajuato, the team concluded that the impact would be substantially increased if the systems were used for drinking water. Having accepted these recommendations, by October 2018, the *State Department of Ecology* issued its first bid to construct 40 rainwater systems for human consumption.

Our own rainwater harvesting work benefited from numerous alliances. Our flagship project this year was to build 25 large-scale systems in the adjoining rural communities of Pozo Hondo and La Vaciada (see pg. 5). The project was designed in collaboration with *INANA, A.C.* - a partner welfare and education NGO, *United Communities for Life and Water (CUVAPAS)* - a grassroots coalition we have

worked with for years, and the communities themselves. The project was then presented to, and ultimately funded by, the *Gonzalo Río Arronte Foundation* - a critical new partner. Thanks to these relationships, we were able to focus on refining and greatly expanding our educational program in the local communities, design & implement a comprehensive *Monitoring & Evaluation Program*, and build the systems in record time.



Guadalupe Arredondo Medrano

Pozo Hondo

Municipality of San Luis de la Paz

The communities of Pozo Hondo and La Vaciada suffer from seriously unhealthy levels of arsenic and fluoride in their drinking water supply – causing a host of serious health threats. Ana María Ramírez, one of the local leaders on this project, noted, *“The problem in my family are the teeth, which are black, brown and yellow [from fluorosis]... I myself have problems in my kidneys and ever since then I do not drink water from the tap, but... [bottled water] is so expensive. A 20-liter bottle costs us 40 pesos (USD \$2) and only lasts a few days.”* In the long term, arsenic and fluoride is correlated with dental and crippling skeletal fluorosis, skin disease, cognitive development issues in children, kidney failure, and numerous cancers.

In response to this situation, concerned members of these communities, mostly women, stepped forward to organize and build 25 rainwater harvesting systems with Caminos de Agua. These systems will now allow many families to have year-round access to safe and healthy drinking water – eliminating those serious health threats.

“When I found out about the problems with our water, I was concerned. Not so much about myself, because I do not have any children, but I could see how my nieces and nephew’s teeth were stained (dental fluorosis), and I knew we had to do something to help this younger generation. Now clean water is available and things will be very different for them.... More people in the communities are now asking how they can have rainwater harvesting systems built on their own homes.”

By partnering with communities like Pozo Hondo and La Vaciada, and grassroots organizations like CUVAPAS, Caminos de Agua supports processes that result in stronger, more engaged, and resilient communities.



Rainwater harvesting systems in Pozo Hondo and La Vaciada

25



75

Families benefiting from these rainwater harvesting systems

Technical Advances

Breakthroughs that deliver more for less

Removing arsenic and fluoride from the water is an exceptionally difficult task. Affordable and appropriate solutions simply do not exist, which is why building rainwater harvesting systems has been such an effective response. But the need is simply too great and only growing. By creating a low-cost filtration system that eliminates arsenic and fluoride, we can substantially lower costs in the short-term and stretch our available resources to help many more people at risk.



Working on phase one of our first Groundwater Treatment System



Tech Team members making final adjustments on a 3,000-liter/day arsenic filter

In 2018, our 'Tech Team' devoted an enormous amount of its resources to making our *Groundwater Treatment System (GTS)* – which removes arsenic and fluoride from water supplies – a reality. Through seemingly endless trials, we proved the system's effectiveness in our lab over and over again. Now, as we enter 2019, we are taking it into the real world with carefully constructed family and community pilots. We are confident that when they are completed, we will be able to help many more drink safe, healthy water and avoid serious health risks for current and future generations. The GTS utilizes materials found commonly anywhere in the world and is open-source – meaning communities around the globe suffering from arsenic and fluoride contamination will be able to benefit from our experience – and exhaustive research and development – for free and without restriction. Learn more about how we implement these technologies on the next page.

All in all, eight engineers came on our Tech Team at some point this year – students working on master's theses, an Engineers Without Borders Fellow, and our first three Caminos de Agua Technical Fellows. Their contributions to improving our ceramic filters and bringing them into the future (see below), optimizing arsenic and fluoride filter medias, building prototypes, and now installing our first community-scale arsenic and fluoride treatment pilots, are all far too profound to try and summarize here. Take a look at our website to learn more.

Aguadapt: From Emergency Response to Permanent Water Solution

After the devastating earthquakes and hurricanes that hit the region in 2017 – and after witnessing the extreme inefficiency and cost of shipping bottled water to those emergency zones – Caminos de Agua started considering the potential of our technologies for disaster relief situations. We went to work on a new water filter that attaches to nearly any container, in minutes, and with no training required – ideal for emergency response where the water available can be treated quickly, on site, and with locally available materials.

At about the size and weight of a 1-liter bottle of water, our new *Aguadapt* filter can produce more than 27,000-liters of drinking water over its lifetime and transition from emergency relief to a permanent water solution for families. The completely open-source design allows it to attach to standardized pumping parts – making the possible uses endless and setting it worlds apart from traditional, proprietary water filters. Utilizing our certified ceramic filter, a refillable cartridge, and a newly-designed universal adapter, *Aguadapt* removes biological pathogens, organic chemicals, and can even be modified to remove arsenic, fluoride, and other contaminants – all at a price accessible for a family living on less than USD \$2 per day.



Our Tech Team was named a National Finalist for the Dyson Award, an international design competition, for their work on *Aguadapt* this year. The *Aguadapt* universal adapter is now in its first production run and will be piloted with a partner organization, *Concern America*, in 600 homes in Southern Mexico in the coming months.

Carmen Castro

Pozo Ademado

Municipality of San Diego de la Unión

The community of Pozo Ademado immediately came to mind when we considered places to pilot the first generation of our *Groundwater Treatment System* to remove arsenic and fluoride. We have a long and successful history of working with Carmen Castro and her organization – *Pozo Ademado Community Services*. Together, over the years, we've tested community wells, built rainwater harvesting systems, organized international university courses, and once we even built a human rights case together.

The well in Pozo Ademado is shared between three communities and has excessively high levels of fluoride. The initial pilot could only serve 40 families to start.

“We listened to Caminos de Agua’s proposal, and were very interested because access to healthy water is scarce...but as we analyzed what was required from us, we began to see aspects related to this project that would cause problems and conflict among ourselves.”

Some did not like the idea that the pilot would initially benefit only one community, some objected to the work involved, and others refused to participate unless they received a personal benefit. We reflected on this as a group and realized that participating would cause more problems than benefits. In the end, although we desperately need something that removes arsenic and fluoride from our water, we decided not to commit to the project at this time.”

We firmly believe that generating lasting and meaningful impact on drinking water supplies is dependent on the intersection of low-cost, proven technologies with an implementation model driven by the local community actors who use them. So instead of moving on and conducting our pilot in another community, we listened to the concerns of Carmen and our friends in Pozo Ademado, learned a little humility, and regrouped and redesigned the pilot to fit their needs.

Community Change Agents

Working hand-in-hand on the ground to make a critical difference

Caminos de Agua – our team, our resources, our technologies, and our experience – is not the solution. We are a cog in something far more important. Building the kind of personal growth and community organization we have been a part of over the years does not happen with just rainwater cisterns or ceramic filters. It takes the community coming together, organizing, and taking ownership. Not only do community members provide thousands of hours of volunteer labor, they also make all of the decisions regarding how every project is organized.



Women engaged during a rainwater harvesting workshop in Pozo Hondo.

We have seen how these projects challenge and ultimately create changes on very personal levels for those who participate. People discover new abilities, which can be transformative. These personal processes often support larger processes that frequently generate greater community impact. By letting go, listening to our partners, adapting solutions to their needs, and not crowding the space or setting the terms, our projects not only create affordable access to clean and healthy drinking water, but they also help support stronger individuals that lead to better-organized, more resilient communities.

We are grateful to be able participate in processes that are generating lasting change, on multiple levels, for so many. We are thankful to the villages where we work, but we are especially *grateful to the women* – who almost exclusively drive the process and who can take what amounts to a construction project and build that into ‘community.’

The following reflections come from the women of Pozo Hondo, La Vacuada, and *United Communities for Life and Water (CUVAPAS)*, who stepped-up and led our biggest rainwater harvesting project this year.

 <p>Community</p>	 <p>Family</p>	 <p>Becoming Change Agents</p>	 <p>Inspiration</p>	 <p>Motivation</p>
<p><i>“Sharing meals together [over the weeks], got us talking with one another. It was part of the experience. [It was] very beautiful. It helped unite us as workers, as a team, as a community.”</i></p>	<p><i>“We are women – influential women – who wanted to work for our children. We have pride that all this work [building rainwater systems] was for the good of our families.”</i></p>	<p><i>“[We are] not just building [rainwater] cisterns, [we are] creating citizens.”</i></p> <p>-----</p> <p><i>“We taught ourselves to work and we were surprised at how much we can learn.”</i></p>	<p><i>“We felt like warriors because [by being an] example, we managed to motivate the [entire] community.”</i></p>	<p><i>“Sometimes a bad mood got the best of us, and we got into a fight, but it never lasted long. At mealtime, we gave each other the encouragement to move forward and finish the job.”</i></p>

Doña Esperanza

San Antonio de Lourdes

Municipality of San Luis de la Paz

When Doña Esperanza was younger, there was plenty of good water for everyone in San Antonio de Lourdes – just three shallow wells served the entire community. But as the water table dropped, those shallow wells dried up, and the community needed to install a well 10 times deeper. In 2010, that deep well went dry too – actually collapsed in on itself – and the village has been without water ever since.

To survive, families buy plastic tanks and fill them at distant villages or irrigation wells – one of which registered the highest levels of arsenic and fluoride we have ever seen. The local kindergarten often went weeks without water for washing or flushing in their bathroom.

So Doña Esperanza and her neighbors got organized, and in 2015, Caminos de Agua helped them build their first rainwater harvesting system – providing a handful of residents with safe and healthy drinking water for the first time in years.

In the following the years, Doña Esperanza and others from the community continued to work with Caminos de Agua and one of our most important grassroots partners – *United Communities for Life and Water*. Together, we have completed four projects – building 20 large-scale rainwater harvesting systems and installing dozens of ceramic filters in schools, homes, and at the community church.

Today, Doña Esperanza continues to be a leader in her community, and was recently named an official member of the water committee. And this year, she helped us organize our first *Monitoring and Evaluation Program*.

Thanks to Doña Esperanza, and others like her, there is hope for a new generation in San Antonio de Lourdes.



Eight Years Later

More focused, smarter, leaner and more effective

It was nearly eight years ago when we started two core programs that would become the foundation of Caminos de Agua: our Water Quality Monitoring Program and the development of our Ceramic Filter. But, it's hard to believe during that same time we also found ourselves building thin-shelled concrete habitats, teaching workshops on earthen construction, and building environmentally sustainable kilns for brick-making communities.

Today, the work in front of us has never been more clear and our commitment to it has never been stronger or more focused. Our diverse team has grown to 14 full and part-time staff, a multidisciplinary board of directors, 2-5 fellows and interns at any given time, plus a satellite network of technical advisors and researchers from around the world – all contributing to one central goal: delivering adequate supplies of safe and healthy drinking water to those at risk.

The facts are simple: the situation is increasingly worse, and becoming so, much faster. We have tested nearly 300 sites throughout the watershed with partners like Texas A&M University and the University of Guanajuato. When we began testing wells over seven years ago, excessive arsenic was only found in a few select communities. Today, we are seeing those levels spike throughout the entire region, from 6 - 14 times above the World Health Organization limit. We substantially updated our online maps in 2018 to make this information more widely available. And we must continue this work to better inform affected communities, monitor changes over time, identify new potential threats, and better focus our resources in communities most at risk.



The construction of this 'thin-shell concrete habitat' back in 2011 was one of the first workshops Caminos de Agua (then CATIS Mexico) offered.

Our rainwater harvesting projects are making a real impact and providing safe, healthy drinking water for more families every year, and – with the launch of our *Groundwater Treatment System* – we will be able to help entire communities get off contaminated groundwater exponentially faster and less expensively. But as the problems are only becoming more extreme and widespread, we must grow both of these programs while continuing to expand our educational programs and hone our technical capabilities. By building capacity in more people and by making our solutions more effective, we can help substantially more communities at risk – inside our watershed and beyond.



2010 – 2011

CATIS Mexico is formed; The MK II Kiln makes an impact in brick-making communities; Our first workshops focus on sustainable construction and agricultural practices; Begin initial testing on the Ceramic Filter



2012 – 2014

Water Quality Monitoring starts to support CODECIN – a coalition of communities and organizations working on water issues; Human rights case presented to the *Permanent Peoples' Tribunal*; First Ceramic Filter pilots are implemented (see pg. 11)



2015 – 2016

CATIS Mexico becomes *Caminos de Agua*; Rainwater harvesting program takes off – impacting dozens of communities; Deepened partnerships with Engineers Without Borders UK and numerous universities greatly enhance our R&D, Education, and Water Monitoring programs



2017 – 2018

The 'Tech Team' is formed – 11 engineers invest 10s of thousands of hours developing arsenic and fluoride filters; Ceramic filter becomes certified and reaches communities all throughout the country

Pascuala González

Ejido Juan González
Municipality of San Miguel de Allende

When we first started working with the community of Juan González in 2013, we found that many of the existing water supplies were contaminated with high levels of fluoride - more than three times the World Health Organization limit in some cases. Other local organizations had already built rainwater cisterns for many families in Juan González, but the stored water was still at risk for contamination by biological pathogens. In fact, some of the rainwater cisterns we sampled at the time tested at more than 2,400 times above the limit for e.coli - a potentially dangerous pathogen that can cause major stomach issues, especially in children.

The good news was that we were looking for a community to pilot our then new ceramic filters, which remove biological pathogens like e.coli, and in Juan González, we found 47 willing families. Five years after that initial pilot, we returned to the community to talk to some of the participants. Pascuala González was a critical organizer of the project.

***“As a child, I drank river water because we did not know anything about contamination. It affected my siblings and me a lot, we all have stained teeth [from excessive fluoride in the water] ... and during those years suffered greatly from stomach pain, nausea, and very bad headaches.*”**

We have been drinking rainwater and using a ceramic filter for over five years. My oldest son, who drank river water before we had the (rainwater) cistern, has very stained teeth, but my three youngest ones were raised drinking rainwater, and their teeth are white and healthy. The ceramic filter gives us the confidence that our cistern water is clean and that nothing bad is in it.”



The Alto Río Laja Watershed

Our work took us all over the state and country this year, but here are just a few highlights, with some of our most important partners, closer to home.




Pozo Ademado Community Services & Carmen Castro
see page 7

Communities of San Diego de la Unión
We coordinated a large-scale water quality study on all 28 wells in the region with the municipal government, Texas A&M University, and the University of Guanajuato.

see page 4

Palo Colorado & Casita Linda
The community well went dry in 2018. Local organization, Casita Linda, builds homes for local families, and this year we provided training and built rainwater harvesting systems on 7 of those homes together with the families.



Juan González
Our first ceramic filter pilots were held in the communities of Juan González and La Cienega in 2013 with 60 families. After five years of continuous use, the filters continue to remove biological pathogens.

see page 11

SAN DIEGO LA UNIÓN

San Antonio de Lourdes

We returned this year to implement our first Monitoring & Evaluation Program with our long-time community partners in San Antonio de Lourdes.

see page 9

Pozo Hondo & La Vaciada

see page 5

United Communities for Life and Water (CUVAPAS)

Padre Juan Carlos Zesati & Lucha Villafuerte

One of our oldest, most important partners, CUVAPAS represents more than 20 communities in the most affected part of our watershed. We worked closely together in 2018 in Terreros de la Concepción, Derramadero, Pozo Hondo, & La Vaciada.



see pages 4, 8

SAN LUIS DE LA PAZ

Terreros de la Concepción

Arsenic and fluoride levels register at 6-8 times above WHO limits and water is available only 1-2 days a week. This year we worked together with 14 families to build the first three large-scale rainwater harvesting systems in Terreros.

La Onza

The National Public Health Institute

This year we began a relationship with the National Public Health Institute who utilized our water quality data to analyze the health impacts of consuming arsenic and fluoride contaminated water – the first study of its kind in the region.



DOCTOR MORA

CecyTe High School

Working together with local high school students and El Maíz Más Pequeño to create educational opportunities and build sustainable water solutions with students.



SAN JOSÉ ITURBIDE

El Maíz Más Pequeño, A.C.

Henry Miller

Working closely over the last several years to influence public policy and implement educational programs in local high schools around the context of watersheds and with hands-on building of rainwater harvesting and water treatment systems.



SAN MIGUEL DE ALLENDE

Financial Highlights

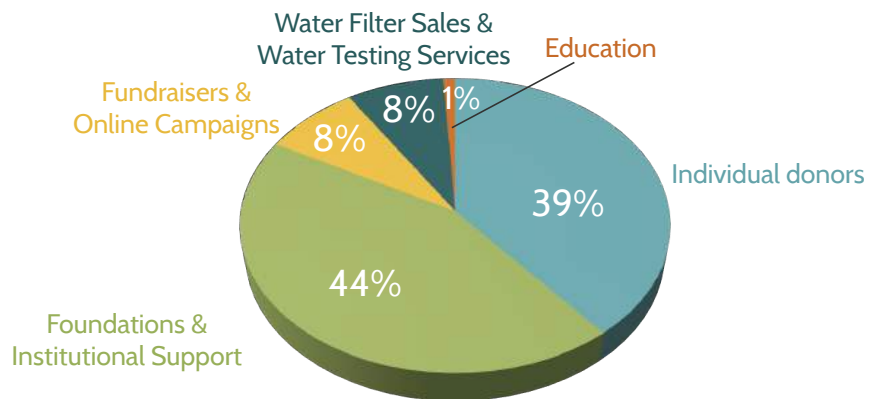
2018



- Annual income topped \$200,000 for the first time.
- Celebrated five consecutive years of support from our partners at the *Natural Health Research Foundation*.
- Secured major new foundation support from the *Gonzalo Río Arronte Foundation*.
- Made major investments in optimizing our ceramic filter production and improving its design for disaster relief, both of which will help generate more sustainable income for years to come.
- Secured funding from Municipal and State Government agencies, while also building actionable models that can be easily replicated by other government actors throughout the region.
- Created a fundraising committee – driven by local volunteers – and significantly broadened our local and individual giving.

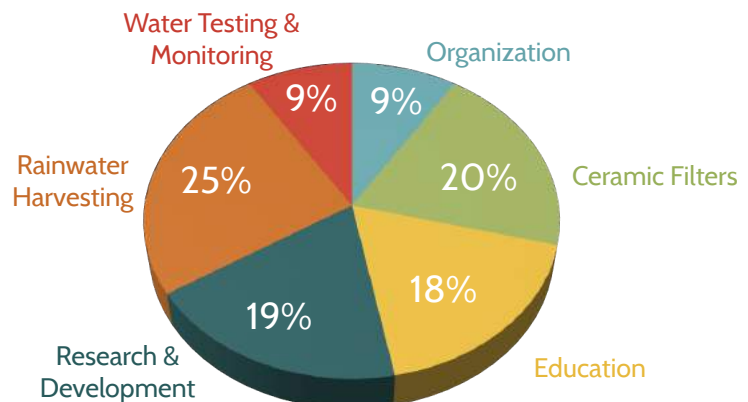
Income

\$207,789.80



Expenses

\$193,313.87



The Caminos de Agua Team

2018

Caminos de Agua Staff

Dylan Terrell
Executive Director

Paco Guajardo
Associate Director

Jennifer Ungemach
Operations Coordinator (2012 - 2018)

Saúl Juárez
Community Projects Coordinator

Casilda Barajas
Ceramic Water Filters Coordinator

Aaron Krupp
*Research & Technology Development
Coordinator*

Chantal Kronenburg
Communications Coordinator

Billy Thurston
Water Quality Monitoring Coordinator

Nico Vargas
Water Filter & Bone Char Production

Filiberto Baltazar
Water Filter Production

Ismael Rodríguez
Water Filter & Bone Char Production

Álvaro Gutiérrez
Caminos de Agua Technical Fellow

Stephan Calvet
*University of Edinburgh Master's Thesis,
Technical Fellow*

Miguel Johansson Finguerut
Engineers Without Borders - UK Fellow

Matthieu Carrière
SAFAD Technical Fellow

Melissa Landman
*Caminos de Agua Technical Fellow
(2017 - 2018)*

Sarah Hartman
*Caminos de Agua Technical Fellow
(2017 - 2018)*

Dennis Paquette
Bookkeeper

Charlie Sellars, Ph.D.
Ceramic Filter Optimization

Dennis Taylor, Ph.D.
Local Technical Advisor, Chemistry

Larry Dworsky, Ph.D.
*Local Technical Advisor, Arsenic
Quantitation*

Board of Directors

Rob Lerner
President

Agustín Madrigal
Vice President

George Terrell
Secretary

Ilan Adler, Ph.D.

Bruce Janklow

Muriel Logan

Ercilia Sahores

Joshua Samson

Technical Advisors

Josh Kearns, Ph.D.
*Assistant Professor NC State University -
Chief Technical Advisor*

Matthew Polizzotto, Ph.D.
*Associate Professor University of Oregon -
Arsenic Geochemistry*

Peter Knappett, Ph.D.
*Assistant Professor Texas A&M University -
Water Quality Monitoring*

Local Volunteers

Nancy Grimwood
Water Quality Testing

Dixie Ashley
Fundraising Committee

Lyn Knox
Institutional Fundraising

Alberto Carrillo
Monitoring & Evaluation Program

Saul Whyman
Fundraising Committee

Brian Voris
Water Ambassador Program

Year in Review

2018

