



BPD

Climate Change Endangers Guatemala's Mayan Communities

*BPD's initiatives are
reducing risks created
by global warming*



Guatemala is the second most vulnerable country in the world to climate change-related natural disasters; this makes work on adaptation vital to our overarching goals. In order to reduce chronic childhood malnutrition in Guatemala, we are incorporating two specific strategies that directly address

the impact of climate change. Those strategies are 1) to ensure food security by introducing ecologically sustainable agriculture techniques adapted to the effects of global climate change, and 2) to assist communities in responding to natural disasters while reducing their vulnerability to future disasters.

This newsletter highlights the ways we are striving to mitigate the impact of climate change in the communities where we work. We started piloting this program in Chichoy Alto and Xejolon, Patzún, Chimaltenango, in July 2012. ■

Global warming is compromising food security in villages throughout rural Guatemala. BPD and ABPD partner with communities to adopt practices that will mitigate the effects of climate change.





LETTER FROM THE PRESIDENT



Dear Friends and Supporters,

Every trip to Guatemala is a learning experience for me and for the rest of the board. During this last trip, our staff and the community of Chichoy Alto showed us the important ways in which a community can work to mitigate the effects of climate change and rising food prices. We saw farmers showing off their enormous, organically-grown produce, reducing their reliance on expensive pesticides. We also heard how they are combining ancient plants and techniques with modern sustainable agricultural practices to get more from their land.

We thank you for all you do to make this work possible, and hope you too will enjoy learning about the ways in which ABPD and BPD are partnering with communities to address the new challenges which climate change is presenting.

Best,

Victoria M. Ward
BPD Board President

Risk Mapping and Prevention: A Plan of Action

The premise of our climate change strategy is action, not reaction. ABPD is working with communities in adapting our processes to new weather realities so that emergency response doesn't become our *modus operandi*.

Our new Disaster Reduction Activities (DRR) plan draws on and adapts existing tools and methodologies. DRR activities focus on specific locations, addressing the unique vulnerabilities and capacities of the particular community, its culture, and its processes. Activities include collecting and managing information, analyzing risks based on location, local infrastructure, and

resources, and building people's capacity to determine their own risk, as well as devise and implement risk reduction measures.



Even as we work to adapt to the increase in tropical storms, drought, and other disastrous weather patterns, we have to be prepared to step in when prevention methods fails. Understanding this, ABPD will continue to provide emergency response when necessary. Such responses include distributing relief supplies, and rebuilding damaged water systems, latrines, schools, and other small infrastructure, in communities that suffer disasters. ■



LETTER FROM THE EXECUTIVE DIRECTOR

Counteracting Climate Change in Guatemala

Guatemala's geographical location makes it a country highly susceptible to weather events such as hurricanes, tropical storms, and droughts. In recent years, the effects of climate change have increased the frequency and intensity of these events to such a point that the United Nations named Guatemala as the second most vulnerable country in the world at its 2012 climate change meeting in Doha.

Droughts and tropical storms have become annual events in Guatemala, affecting disenfranchised people living in conditions of poverty and exclusion. In the areas in which ABPD works, torrential rains cause mudslides of enormous dimension that damage potable water and sanitation systems, destroy the crops of subsistence farmers, and devastate the surrounding farms that often offer employment to many of the community members with whom we work.

After Tropical Storm Agatha in 2010, ABPD began working on building new water systems that were less vulnerable and modifying older systems to reduce their vulnerability. We were successful in mitigating the danger to previously damaged systems as only minor issues were caused by subsequent storms. In these cases, some small repairs were necessary, but the communities were able to take care of those without external support.

Food security is most dramatically affected by these weather events. Sixty-eight percent of the children we work with suffer from chronic malnutrition. A slight deterioration

in the access and availability of food leads quickly to acute malnutrition.

In Patzún and Santa Apolonia, these changes in availability and accessibility to food have an immense impact. Between seventy percent and ninety percent of basic grain harvests were lost in 2011 because of the excessive rain, landslides, lack of water, and strong winds, leaving affected families without food staples for a full year (ABPD provided an emergency response). The loss of export crops further devastated the status of food security because community members rely on selling their labor to the larger farms in order to purchase basic food staples. With the destruction of export crops, workers are fired. Further complicating the situation, widespread food shortages cause prices to double and triple, making it impossible for families, even those with jobs, to acquire the most basic of foods, resulting in the reduction of meal portions or the cutting out of meals altogether.

Given this crisis, ABPD has included risk reduction and systematic climate change adaption in its new strategic plan. The following pages detail the specifics of this plan. With your continued support, we will work alongside affected rural communities to ensure that they have the resources and knowledge necessary to withstand the withering impact of climate change.

Paco Enriquez
ABPD Executive Director



BPD donors are saying...

My visit to see BPD's partnerships in rural Guatemala this past January was a powerful and uplifting experience. Our stop in the village of Chichoy Alto allowed me to clearly see the success of BPD's comprehensive approach to reducing childhood malnutrition. BPD's respectful collaboration with this community means that families no longer simply hope for a better life—they are planning for it and living it! With BPD's guidance, I saw firsthand how intervention at the local level has empowered the Mayan people to hope for a brighter future, expect progress, and to create their own plan for lasting change.

—Elizabeth Ross Dann, Arlington, VA





Goats Weather Climate Change

Goats are an important component of our efforts to defeat chronic malnutrition *and* address the impact of climate change. They are a resistant source of nutrients that are not affected by tropical storms. Goat milk is an excellent source of calcium and vital minerals for children suffering from malnutrition. They are easy to sustain, can eat almost anything, and their manure serves as healthy compost for family gardens. Goats adapt to the rocky highlands of Guatemala better than cows do, require less food, and consume less water. Importantly, the pesky problem of lactose intolerance doesn't occur with goat milk. Goats have been used in the fight against chronic malnutrition worldwide for decades, and with good reason.

Our project is simple and sustainable: families who have children under five that are malnourished receive a milking goat. The family commits to giving the first female offspring of that goat to another family. A direct approach with a profound impact.

In Chichoy Alto we began this project by delivering



Goats can thrive in the rocky highlands of Guatemala and are easy to sustain.

thirty-five milking goats and two males in February 2012. Since then, nineteen goats were born and donated to other families in the community. In Xejolon, twenty-five goats were distributed in June, and already nine newborns have found new homes.

ABPD's agronomist provides quarterly trainings addressing topics such as deworming, nutrition, weaning, and difficult deliveries and other complications, ensuring that the communities will be able to provide proper care for these animals without the continued involvement of external forces. ■

Corn Silos and Market Prices: A Recipe for Health

As in ancient times, corn is the principal staple of the Guatemalan rural diet. Traditionally, after the annual harvest, corn has been stored on porches, rooftops, or in rice bags for up to a year. These inadequate storage techniques create the potential for high post-harvest loss due to humidity, rain, and the infestation of rats and insects. This loss can have a detrimental impact on a family's nutrition while also inhibiting a family's ability to derive additional income from corn sales, which allows them to purchase other vital foods.

ABPD is working with communities on implementing weather-resistant corn silos that greatly reduce these post-



Weather resistant corn silos greatly reduce post-harvest losses.

harvest losses. Corn silos can store grain produced by up to five families. With improved storage capabilities, people will have the option to buy and sell corn according to market fluctuations. After damaging tropical storms force corn prices to rise, stored corn can be sold for a profit. When corn prices are down, families can maintain their supply until the market favors selling, use the corn for their own needs, or purchase corn on the market to resell

when prices rise. The introduction of a revolving loan fund will aid families in this endeavor. The simple concept of adequate storage allows for families to think and plan strategically around their main crop. Their health and future income is also less vulnerable to weather and pests. ■





Organic family gardens help augment food security and provide families with a new source of income.

Family Gardens Adapt and Resist

ABPD introduced family gardens several years ago in order to increase a family's capacity to produce basic grains and foods rich in micronutrients, aiding the youngest children and pregnant women, those most vulnerable to malnutrition.

These gardens have also proven to be an important component of our strategy for adapting to climate change as they counteract nutrient loss resulting from the devastation of staple crops by tropical storms, a fierce by-product of climate change. Additionally, their size simply makes them more resistant to storms than large cultivation areas.

ABPD makes an initial donation to help start the gardens and trains families to produce sufficient amounts in order to be able to sell extra produce to generate the income necessary to reinvest in seed, fertilizers, and insecticides. Of the 215 families who now have their own gardens, 150

women have successfully adopted sustainable farming techniques and no longer require external support.

These gardens also provide a training ground for sustainable farming techniques that can be applied on a larger scale. The indiscriminate use of fertilizers and pesticides resulted in the deterioration of soil quality and crop productivity over time. Families are learning to compost their organic material and animal manure which has the dual function of reducing waste and healing the soil. Families are also reclaiming seed saving practices. Within three years, ABPD expects that the soil will have revived enough that synthetic fertilizers, pesticides, and herbicides will no longer be in use. Seed saving practices will ensure that seeds will no longer have to be purchased on an annual basis. Once these costs cease to exist, income generated from these gardens can address other family needs. ■





Sustainable Agriculture: Looking to the Past to Build the Future

Patzún, Chimaltenango, is highly vulnerable to the effects of climate change due to its geographic location and steep slopes. Crop loss has been significant in the past few years, resulting in food insecurity which exacerbates malnutrition in children. Corn and beans are the food staples in the region, yet they are the very crops which sustain the greatest losses. ABPD is working closely with community members on developing sustainable agricultural practices which will mitigate some of the impact that storms are having. ABPD is helping the Mayan population reclaim some of their lost traditional practices as well as introducing some new low-cost innovations. Interest among the community members is keen: ABPD is working with over 200 families, a 90 percent participation rate, in Chichoy Alto and Xejolon.

ABPD promotes sustainable agriculture and food security by boosting the production of corn and beans through the use of organic fertilizing techniques to improve soil quality (as explained under family gardens); reducing post-harvest losses through the use of corn silos; implementing soil preservation measures; and using seeds that are less susceptible to the effects of climate change.

ABPD is reintroducing terracing, a concept that has been used by rural communities worldwide for centuries, but was displaced by more conventional methods which contributed to soil erosion. Terracing on hillsides allows for the capture of water, while directing it away from soils that are not able to absorb it, reducing soil loss and water runoff. Hedgerows of zacatón, a type of grass, are being planted with the dual purpose of acting as a natural barrier (keeping the soil in place and absorbing water runoff) and serving as a food source for horses and livestock.

Community members are adapting their seed saving techniques to counter the effects of tropical storms, flooding, and drought. Local seeds don't require external inputs; they are chosen because they come from the very plants that have best survived their given environment. In this case, shorter stalks which are less vulnerable to high winds. Not only do

local seeds offer the highest production rate due to their suitability to local conditions, but they alleviate the need to purchase seeds on an annual basis, a requirement when using genetically modified seeds. ■



Sustainable agriculture plays an important role in reducing malnutrition and poverty. ABPD's partnerships enhance food security through small-scale farming and environmentally sustainable food production.





Making a Difference in the Lives That Follow

In 2004, I reconnected with a former sorority sister, Pat Krause, and learned of her extraordinary, long-time Behrhorst Partners association. I went on a BPD tour with Pat in January 2006 and have been “hooked” on the incredible work of this organization ever since. On that tour, I saw firsthand how BPD projects focus on the basic human needs of water, sanitation, nutrition, education, and empowerment. I came full circle from my own Peace Corps experience in Costa Rica (1963-65) to witness how great the need is, and how access to these health essentials changes lives.

Not long after, I was making decisions about beneficiaries for my revocable trust. It was important to me to leave a legacy that reflects my values and beliefs. BPD’s integrated focus of commitment and involvement with both the villagers and their municipal government does just that. BPD contributes much-needed funds and on-site project guidance while community members, including women and children, take responsibility for doing the hard work and ongoing maintenance. BPD also follows-up with each village well after projects have been completed. This made sense to me and gave me the confidence to designate a percentage of my estate plan for BPD.

Now after many more BPD village visits, board time, and tour leadership, I continue to believe in this approach and love seeing the results. I am energized by our partnership

and life-changing impact, and humbled by the friendly and gracious recipients who passionately and repeatedly declare their gratitude to BPD.

The Dr. Carroll Behrhorst Legacy Society was created to celebrate BPD donors who partner in its work with indigenous communities through a gift in their wills or estate plans. Behrhorst Partners welcomes into the Legacy Society those who submit their intention to make such a gift to benefit BPD’s work. Until June 30, these forward-thinking donors will be named as founding members of the Dr. Carroll Behrhorst Legacy Society.

The generosity of Legacy Society members – large and small – will enable Behrhorst Partners for Development to continue to team with Mayan communities far into the future. I invite you to make a meaningful difference in their lives through a legacy gift.

Barbara Yost
BPD Board Secretary



For more information on making a planned gift to Behrhorst Partners for Development, please visit our website, www.behrhorst.org, or call **Jennifer Turck, Director of Fund Development**, at (607) 749-2545.





Newsletters are occasional publications of Behrhorst Partners for Development, 2933 N. State Road 27, Ojibwa, WI 54862. Behrhorst Partners for Development (BPD), together with our collaborators at the Asociación BPD (ABPD) in Guatemala, works in partnership with communities to improve their health and well-being. Our approach to partnership and community development is based on the principles espoused by Dr. Carroll Behrhorst in his work with the Mayan communities of Chimaltenango. Tax-deductible contributions to BPD are forwarded directly to projects, except for the minimal amount required for advocacy. BPD is non-sectarian and non-political.

The BPD home office has a new address!
 Jessica LaBumbard, US Coordinator
 2933 N. State Road 27, Ojibwa, WI 54862
 (715) 945-2164

BehrhorstUS@yahoo.com
 www.Behrhorst.org

Guatemala Editor: Marily Girón
 US Editor: Jessica LaBumbard

Donations for BPD's work can be sent to:
 Behrhorst Partners for Development
 Dept. 116234
 P.O. Box 5211
 Binghamton, NY 13902-5211



Behrhorst Partners for Development
 2933 N. State Road 27
 Ojibwa, WI 54862

BPD HAPPENINGS – EVENT CALENDAR

- **Spring Reception for D.C. Area Loyal Donors**
 Arlington, VA
 Thursday, May 2nd
 @ 6:30 PM
- **Hunger Banquet**
 Cincinnati, OH
 Wednesday, June 11th @ 6:00 PM
- **TOUR 2014 – Four Day Tour Antigua/ Atitlan/ Patzun Region of Guatemala**
 Currently being planned for late January, 2014

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Asociación BPD staff is on the ground, carrying out this vital work in their capacities as Executive Director, Program Director, Accountant, Administrator, Monitoring and Evaluation Specialist, Social Worker, Agronomist, Nutrition Educator, Sanitation Technician, and Housekeeping and Maintenance Personnel.

