Equator Initiative Case Studies
Local sustainable development solutions for people, nature, and resilient communities

GARIFUNA EMERGENCY COMMITTEE OF HONDURAS
Honduras

Equator Prize Winner
Local and indigenous communities across the world are advancing innovative sustainable development solutions that work for people and for nature. Few publications or case studies tell the full story of how such initiatives evolve, the breadth of their impacts, or how they change over time. Fewer still have undertaken to tell these stories with community practitioners themselves guiding the narrative.

To mark its 10-year anniversary, the Equator Initiative aims to fill this gap. The following case study is one in a growing series that details the work of Equator Prize winners – vetted and peer-reviewed best practices in community-based environmental conservation and sustainable livelihoods. These cases are intended to inspire the policy dialogue needed to take local success to scale, to improve the global knowledge base on local environment and development solutions, and to serve as models for replication. Case studies are best viewed and understood with reference to 'The Power of Local Action: Lessons from 10 Years of the Equator Prize', a compendium of lessons learned and policy guidance that draws from the case material.
PROJECT SUMMARY

This women-led initiative arose in 1998 in response to the devastating effects of Hurricane Mitch on sixteen agrarian Garifuna communities. These peoples of Afro-indigenous descent have traditionally been socioeconomically marginalized in Honduras, and their agricultural livelihoods were hard hit by the loss of 70% of the country’s crops due to heavy flooding.

Beyond initial disaster relief efforts, the initiative has sought to improve local resilience to future environmental disasters. By conserving forests, incorporating sustainable agricultural practices for hillside farming, adopting appropriate technologies, rehabilitating beaches, and supporting the land reform efforts of disenfranchised Garifuna communities, Comité de Emergencia Garífuna is helping to ensure that future generations of Garifuna are able to live prosperously and in balance with healthy ecosystems.

KEY FACTS

EQUATOR PRIZE WINNER: 2004
FOUNDED: 1998
LOCATION: Colón
BENEFICIARIES: 16 GARIFUNA COMMUNITIES
BIODIVERSITY: COASTAL HUMID-TROPICAL FOREST

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The Garífuna Emergency Committee of Honduras (Comité de Emergencia Garífuna, CEGAH) is an Afro-Indigenous group that was founded by a group of female Garífuna community leaders in 1998 to support critical reconstruction efforts within Garífuna communities affected by Hurricane Mitch.

The effects of Hurricane Mitch on the Garífuna

In late 1998, Hurricane Mitch saw up to 1.9 metres of rainfall in Honduras, Guatemala, and Nicaragua over a five day period. Deaths due to catastrophic flooding made it the second deadliest Atlantic hurricane in history; in Honduras alone the extreme flooding and mudslides killed over 6,500 and left several thousand missing. Across the country, the storm destroyed 33,000 houses and damaged 50,000 others, leaving over 20% of the country’s population homeless. Mitch’s rainfall also resulted in severe crop losses, affecting more than 300 square miles (800 km2) or 29% of the country’s arable land. An estimated 70% of the country’s crops were destroyed by flooding, including 58% of the corn output, 24% of sorghum, 14% of rice, and 6% of the bean crop. Crop damage alone was estimated anywhere from $900 million to $1.7 billion (1998 USD). Severe crop shortages left many villages on the brink of starvation, while overcrowding and a lack of sanitation led to outbreaks of malaria, dengue fever, cholera, conjunctivitis and chickenpox. In all, an estimated 7,000 people were reported dead and damage totaled $3.8 billion.

The impacts of Hurricane Mitch fell particularly hard upon Garífuna communities living along the Caribbean coast of Honduras. The Garífuna are descendants of the Carib, Arawak, and West African peoples. They currently populate the Caribbean coast of Belize, Guatemala, Honduras and Nicaragua, while there are many diaspora communities living in the United States. Their language, Garífuna, is a creole which derives primarily from Arawak, Carib, English, French and Spanish. The origins of the tribe date to 1665, when two British slave ships were wrecked near the island of San Vicente. The ships were carrying West African slaves to British colonies in the area of Martinique, Santa Lucia, Granada, Dominica, and Barbados. The shipwrecked slaves swam to the island of San Vicente and eventually began to mix with the Arawak Indians living there. By 1750, these prosperous and numerous communities were known as the Garífuna. After a series of wars with British colonial forces, however, approximately 5,000 of the tribe were expelled from San Vicente to the Honduran mainland where they settled the coastal town now known as Trujillo.

The Caribbean coast of Honduras comprises the southern end of the Mesoamerican Barrier Reef System. The coastal zone contains mainland reef formations, mangroves, wetlands, sea grass beds and extensive fringing reefs around its offshore islands. The town of Trujillo is surrounded by two protected areas: Parque Nacional Capiro-Calentura, a National Park, and Reserva de Vida Silvestre Laguna Guaimoreto, a Wildlife Preserve. Capiro-Calentura is composed of lowland evergreen tropical rain forest. These forests are Honduras’ most species-rich ecosystems with as many as 115 species of tree per hectare. The reserves are also particularly rich in amphibians with 26 species comprising 31% of the national total.
These ecological features form part of a complex natural system that is frequently disrupted by periodic natural disturbances such as hurricanes, flooding, fires, and droughts. While these natural occurrences are common in tropical areas and are important components of healthy ecosystems – to the extent that they alter the ecological balance and facilitate growth and renewal – their impact upon human communities can be devastating.

**A community-based response to natural disaster**

CEGAH was born out of necessity. The scale of destruction left by Hurricane Mitch was beyond the capacity of national disaster response units to adequately respond to, leaving many municipalities to pool resources and organize rescue operations on their own. As a result, over 250 Garífuna women from severely affected communities in and around Trujillo organized themselves to provide first-response disaster relief services for Garífuna populations as they awaited the deployment of international relief units. Their main objective was to construct shelters for families left homeless by the hurricane and to address the rapidly deteriorating food security situation in 16 Garífuna communities. Working with international humanitarian and relief organizations such as the UN emergency operations organs (UNOCHA, UNDAC, UNICEF), CEGAH helped to coordinate critical humanitarian support services such as search and rescue, emergency medical services, the construction of temporary shelters, the provision of food, clothing, and construction materials, and providing counseling for traumatized victims.

In response to the urgent need to relocate victims left homeless by the hurricane and to combat the growing threat of epidemics in overcrowded shelters, CEGAH concentrated their efforts on establishing “tool banks” to facilitate the reconstruction of houses and buildings. The tool banks were established in each of the 16 communities targeted by CEGAH and they proved to be critical to the reconstruction of devastated households. The initial and rapid success of the tool banks not only legitimized the existence of a female-led organization within a traditionally male-dominated culture, but also ensured that gender equality become a theme common to all of CEGAH’s projects.

**Building local resilience to environmental risk**

After the most pressing needs of local communities had been met, CEGAH began shifting its focus from disaster response to disaster management and preparedness. Having endured one of the most devastating natural disasters in recent memory, CEGAH concentrated its efforts on assisting local communities to increase their capacity to mitigate and manage the impacts of natural disasters. CEGAH immediately undertook initiatives aimed at combating poverty and malnutrition, diversifying incomes, conserving critical habitats, restoring degraded areas, advocating for land reform, protecting the Garífuna people’s cultural heritage, and promoting gender equality within Garífuna communities. Specific activities have included: developing sustainable agricultural systems to boost productivity, diversify crops, improve food security, and augment incomes; protecting forests upon which the Garífuna rely for economic, religious, and cultural purposes; strengthening Garífuna land rights which they felt to be threatened by outside influences such as cattle ranchers, loggers, and commercial developers; ensuring the survival of traditional Garífuna cultural practices through holding artisan workshops for Garífuna youth; and promoting gender equality by prioritizing the role of women in leadership positions within the organization.
Key Activities and Innovations

The key activities of CEGAH center on disaster management. Through a variety of innovative poverty reduction, environmental conservation, and cultural awareness initiatives, CEGAH is equipping local communities with the knowledge and skills necessary to respond to future challenges. Within the rubric of disaster management, CEGAH focuses primarily on disaster prevention, mitigation, response and resilience through strengthening livelihoods and improving the sustainability of the agricultural sector.

Improving agricultural productivity

The impact of Hurricane Mitch on the agricultural sector was enormous. As mentioned, flooding destroyed at least 70% of the country's crops leaving many villages on the brink of starvation. Recognizing the urgent need for a more resilient agricultural sector, CEGAH works to facilitate the adoption of agricultural techniques which diversify production, increase yields, strengthen food security, and diversify farming incomes. Prior to Mitch, the staple crop of the Garífuna was a root crop called yucca (or manioc root, *Manihot esculenta*). Yucca is highly susceptible to rotting if soils are too moist. The extensive rains and flooding triggered by Mitch caused widespread losses of this crop and pushed many communities to the brink of starvation. In response to the precarious food security situation, CEGAH worked with Garífuna farmers on various crop diversification projects which increased production of other traditional root crops such as ginger, taro root, red yam, arrow root and sweet potato as well as fruit trees. Farmers also received training in sustainable farming techniques and in on-farm production of necessary inputs such as organic fertilizers such as Bokachi, a fermented organic fertilizer which is cheap, fast, and easy to produce using locally available materials. Diversification and intensification of agricultural production has enhanced household access to a wider variety of food sources and has greatly improved the food security situation of Garífuna communities. Intensification of production and proper soil management also reduces the need to expand agricultural production into nearby forests. CEGAH's efforts are generating many economic benefits and increasing the disaster preparedness and response capacity of Garífuna communities.

Value-added processing of natural resources

In addition to farm-level orientation and support, CEGAH assists communities in the production and marketing of farm products. Garífuna farmers are predominately women. Traditionally, Garífuna women would not only harvest yucca, but would also spend hours more boiling, drying, and grinding their harvest into the starchy flour that is used in the production of casave bread. Casave bread is a staple in the Garífuna diet, and is highly prized in urban areas where, due to the time and labor required for production, it is relatively scarce. CEGAH successfully acquired financing to provide communities with labor-augmenting mills to be used in grinding the yucca into flour. Now, casave producers can more quickly and efficiently process yucca into bread and earn substantially higher incomes for their efforts. The extra income provided by the mills is a significant financial achievement in these marginalized and isolated areas. The mills provide communities an additional benefit in that they are able to store surplus quantities of yucca flour. Thus, in the times when food security is at its most precarious, it is certain that at least there will be casave bread to eat until the next harvest.

CEGAH also assists communities to commercialize agricultural and artisanal production by providing training seminars and establishing “Mercado Wabagari”, the first ever Garífuna farmers’ market. Farmers from previously isolated markets are now able to sell crops like plantains, yucca, breadfruit, saltfish, pineapple, hot peppers, yucca flour, casave bread, oranges, sugar cane, wild fruits such as jicacos and camacama, sweet potato bread, coconut oil and mango cake at more competitive prices. Crafts produced through the artisan workshops are also brought to market for sale, earning artisans additional income. With greater diversity in the harvest and more efficient methods of production and marketing, communities are able to plan beyond mere survival.
Incentivizing forest conservation

The Garífuna have long conserved natural areas for their artisanal, religious and medicinal plants, and CEGAH supports local Garífuna communities in conserving local forests. For example, the initiative now encompasses a livelihood project to cultivate balaire, a forest resource of great cultural and economic importance to the Garífuna. Balaire is a vine-like climbing palm which the Garífuna utilize in a variety of ways, from fashioning cooking implements to weaving baskets for carrying harvests, firewood, or other supplies. “La culebra” (“the snake”) is a traditional Garífuna implement crafted from balaire and used in the production of the traditional casave bread. As it is a climbing palm, balaire depends upon other trees for mechanical support. The balaire project exemplifies how CEGAH is partnering with local communities to provide realistic economic incentives for environmental conservation.

Another key activity is the fuel-efficient Justa Stove project. These stoves help reduce the amount of firewood needed for cooking, allowing families to save up to 70% on fuel wood consumption compared to traditional open-pit cooking fires. Families that buy or collect firewood are able to save time and money for other necessities such as medicine and schooling. There are also significant health benefits associated with using the Justa stove. The chimney can remove 95% of the toxic gases produced through the combustion of wood. By promoting this technology, CEGAH is helping to protect local forest and water resources and protecting the health of women and children, who are disproportionately affected by smoke produced from cooking.

Youth and gender empowerment

CEGAH also promotes youth and leadership development, thereby ensuring the sustainability of their work for future generations. Capitalizing on the balaire conservation project, artisan workshops are offered to local youth in order to provide them with income generating skills while at the same time promoting the preservation of traditional Garífuna practices. Youth are trained in traditional artisan techniques and are able to earn roughly US$30 a month selling their work at the farmers’ market or to visiting tourists. CEGAH is also working with local high school students in the nearby town of Limón to reforest degraded coastal habitat with native fruit and hardwood tree species. Through the various reforestation initiatives, CEGAH is helping to ensure that the Garífuna leaders of tomorrow are gaining valuable knowledge and experience about protecting the environment while sustainably developing their communities. By empowering communities and ensuring that they are able to maintain control over their ancestral lands and keep them productive, the Garífuna are able to offer viable economic alternatives to youth who might otherwise migrate in search of opportunity in crowded urban areas.

CEGAH is also a champion of gender equality and women’s empowerment – it is entirely female-led. Women form a majority of participants in CEGAH and it is women who comprise the agricultural sector in Garífuna communities. Women are also the primary producers of casave and coconut products, and they are the central actors in the commercialization of farm products and in reforestation activities. Though not an all-woman’s group, CEGAH’s genuine commitment to women’s empowerment and participation has been featured as an example of “Best Practice” by the Huairou Commission, a global coalition that empowers grassroots women’s organizations to enhance their community development practice and to exercise collective political power at the global level.

Institutional organization

CEGAH is a democratically run organization governed by a board of directors consisting of representatives from the five municipalities covered by the initiative (Iriona, Santa Rosa de Aguan, Santa Fe, Limon, and Trujillo). This board of directors oversees a General Assembly composed of representatives from each of the 16 community boards. Each community board consists of sub-directors and supervises the community tool banks. Representatives are held accountable to the members who number roughly 250. The General Assembly meets monthly at CEGAH headquarters in Trujillo, Colón; these meetings are open to the public.
Impacts

**Biodiversity Impacts**

Protecting and enhancing biodiversity is a top priority for CEGAH. The Garífuna take pride in helping to improve local conservation of both Parque Nacional Capiro-Calentura and Reserva de Vida Silvestre Laguna Guaimoreto, protecting one of the few areas in the region where wild parrots, crocodiles, monkeys and other wild mammals, reptiles and birds are still relatively abundant. CEGAH mirrors this conservationist ethic by aiming to relate biodiversity to people and their livelihoods. The traditional livelihoods within coastal Garífuna communities include non-mechanized subsistence farming, fishing, and the production of artisanal goods. CEGAH works with communities to identify important economic and social incentives for habitat protection and rural development. The organic farming projects, reforestation of coastal habitat, forest conservation through the balaire project, and the Justa stove project all encompass activities that simultaneously benefit local communities and the environment.

**Sustainably conserving forest resources**

For example, balaire production protects local forests from deforestation. Used mainly for artisanal purposes, Balaire or bayal (*desmoncus orthacanthus*) is a native vine-like species of the palm family that once grew abundantly throughout the region. Due to widespread deforestation by non-Garífuna cattle ranchers, farmers and loggers, local stocks were growing increasingly threatened. To ensure that local supplies of Balaire would not be depleted, CEGAH supported the establishment of community nurseries and increased vigilance in the protection of local forests. Communities now cultivate Balaire in its natural habitat. Once the vine reaches maturity (4-7 years) it can be used for crafting traditional Garífuna cooking implements, such as the 9 foot long “culebra” which is used in the production of casave bread. Balaire is also sustainably harvested – mature vines are cut and sold to artisans while the remaining portion of the stem continues to grow. The sustainable production of Balaire has brought about many co-benefits including the conservation of forested and riparian areas that directly support local wildlife, strengthening local hydrological systems, and expanding income generating opportunities for community members.

Another example of CEGAH’s commitment to biodiversity is the youth beach reforestation program. Through workshops and reforestation activities, edible fruit-bearing trees which used to be abundant – sea grapes (*Coccoloba uvifera*), almond, camacamas, nance (*Byrsonima crassifolia*), cashews (*Anacardium occidentale*), jicacos (*Chrysobalanus icaco*) – now populate coastal areas again. The trees will not only help protect the beach against erosion and the wind and surf generated by the annual tropical storms, but will also provide fruit that can be sold in the farmers’ market.
SOCIOECONOMIC IMPACTS

All of the projects undertaken by CEGAH are designed to not only protect the environment but also to benefit the Garífuna people. For example, Mercado Wabagari enables farmers in isolated towns to access larger markets and sell their products at more competitive prices. While profits vary according to supply and demand factors, having access to a larger market can yield significant income gains for farmers. The yucca mills also allow women in isolated villages to earn extra income selling casave in urban areas. CEGAH estimates that a 25kg sack of yucca can yield roughly 20 casaves, worth about US$20.

The Youth Artisan course is another example of how the initiative is helping communities to reduce poverty. Youth are trained in traditional Garífuna artisan techniques and are able to earn around US$30 a month selling their work, and perhaps even more during holidays or tourist season. The balaire project also generates significant economic benefits. Within four to five years of planting, each mature balaire vine can yield roughly US$30 in crafted goods.

POLICY IMPACTS

CEGAH was approached to participate in a planning meeting coordinated by SEPLAN (the Honduran Ministry of Urban Planning and Cooperation Unit), COPECO (the Honduran Emergency Response Commission), DIPECO, and local elected officials to evaluate the National Ministry’s disaster relief plan. CEGAH presented their work on the Community Resilience Fund (CRF). The fund is supported by the Norwegian Ministry of Foreign Affairs, UNDP, and the World Bank’s Global Facility for Disaster Reduction and Recovery, and is a mechanism to channel funds directly to community based organizations and women’s groups living in disaster prone areas. As a result of their participation, CEGAH was invited by the Mayor of Cantarranas, another disaster-prone community located in the Honduran highlands, to train his staff on community resilience and the local implementation of the U.N. Hyogo Framework of Action (HFA). CEGAH also signed a memorandum of understanding with the Honduran Government to develop programs on housing and food security. CEGAH has also negotiated with the Honduran Housing Ministry for the construction of 100 homes in Trujillo, and 200 homes in Rio Esteban, and to establish community housing councils in each locality.
Sustainability and Replication

**SUSTAINABILITY**

Broad-based community support provides the bedrock for CEGAH’s three pillars of sustainability: institutional, financial, and environmental sustainability. By engaging communities at all levels of project administration – from design, to implementation, to monitoring and evaluation – CEGAH teaches that every voice counts, and that everybody has a role in helping to create a more prosperous future for their community.

**Social, economic, and environmental sustainability**

CEGAH ensures institutional sustainability through various capacity building activities within the organization. Periodic workshops in fundraising, teamwork, and leadership development provide members with opportunities for personal and professional growth and help to underscore the founding principles of the organization. Members are encouraged to not only participate in official events, but also to represent the organization within leadership roles as well. Many members describe how they used to fear public speaking, but now, thanks to their experience working with CEGAH, can speak confidently in front of large groups of strangers. The organization is enriched by the fact that project participants come from a variety of backgrounds with differing levels of training and education. CEGAH is empowering communities to be assertive and united.

CEGAH also ensures the financial sustainability of the organization through the variety of income generation programs they support. For example, the agricultural component of the project reduces farmers’ dependence on expensive chemical and synthetic farm inputs. Organic compost and repellents are produced using materials produced on the farm and many crops can be replanted with seeds, roots or stems, eliminating the need to purchase these costly inputs. In addition, CEGAH encourages strategic farm planning for short (yucca, plantain), medium (coconuts, fruit trees, balaire) and long-term (hard woods) harvest and income generation horizons. As part of these programs, participants are required to re-invest a percentage of proceeds back into program activities in order to ensure long-term program viability. Central to the sustainability of any agricultural project is a “pay it forward” clause. All project beneficiaries sign an agreement to provide a portion of seeds to another farmer, and a portion of their harvest to an elderly or other person in need.

Investments in higher priced items – the yucca mill, construction equipment, etc. – allows participants to generate income streams vital to the continued maintenance and operation of the equipment. For example, yucca-grinding mill operators charge a small fee for use of the mills which is then allocated for purchasing diesel and performing routine maintenance or repairs. Another example of the financial sustainability of the project is the youth artisan course. Initially, tools and materials were provided to the course, but now participants can purchase these inputs using their own earnings.

Above all others, environmental sustainability is the pillar upon which the future of all of CEGAH’s projects rests. CEGAH recognizes the vital role that a healthy environment plays in meeting the needs of the present generation without compromising the ability of future generations to meet their own needs. By conserving forests, incorporating sustainable agricultural practices, adopting appropriate technologies, rehabilitating beaches, and supporting the land reform efforts of disenfranchised Garífuna communities, CEGAH is helping to ensure that future generations of Garífuna are able to live prosperously and in balance with healthy ecosystems.

**REPLICATION**

In addition to helping develop the National Disaster Relief Plan with SEPLAN and COPECO, CEGAH’s efforts are being replicated in other localities along the coast. Five nearby towns have implemented a balaire conservation project. In San Jose de La Punta, the community
is declaring the zone around their local water reservoir an “area verde”, or “green zone”, and planting balaire within the boundary, while in Iriona Viejo, community members are conserving various untouched parcels of forest for balaire cultivation. Farmers from communities not encompassed by CEGAH have also been able to sell their produce in the Mercado Wabagari, benefiting themselves as producers while offering a wider variety of products for consumers to choose from. Nearby towns are also replicating the successes achieved through the mechanical yucca grinding mills.

PARTNERS

CEGAH has created partnerships with several key local and international organizations, most notably, Fundación Calentura y Guaimoreto (FUCAGUA), Organización Fraternal Negra Hondureña (OFRANEH), the American Jewish World Service (AJWS), WITNESS, and the Public Charter School 1 from Denver, Colorado, USA.

FUCAGUA is a local environmental NGO legally chartered in 1992 by the Teacher’s Union of Trujillo with support from UNDP and the U.S. Peace Corps to protect the local coastal ecosystems. FUCAGUA successfully lobbied that Parque Nacional Capiro-Calentura and Reserva de Vida Silvestre Laguna Guaimoreto be formally designated as a national park and wildlife refuge, respectively.

OFRANEH is the national Garifuna organization of Honduras, established in 1978 as a federation of Garifuna communities. The main focus of OFRANEH is to defend the territorial and cultural rights of the Garifuna populations of Honduras. OFRANEH was supported for eight years by AJWS in implementing a project titled “Building Garifuna Response in Adaptation to Climate Change and Defense of Land Rights” to support the development of a community-based approach to climate change and disaster-risk reduction, including early warning systems. The organization also works to formalize the role of women in a national network and provides legal support for court cases regarding land rights.

WITNESS is an international nonprofit organization that uses the power of video and storytelling to open the eyes of the world to human rights abuses. It was co-founded in 1992 by musician and human rights advocate Peter Gabriel, Human Rights First and the Reebok Human Rights Foundation. A movie entitled Garífunas Holding Ground/When the River Met the Sea was produced in conjunction with CEGAH in support of the residents of a nearby Garifuna community struggling against an illegal highway built by wealthy ranchers without an environmental permit as required by law. The construction of the highway caused deforestation which has since contributed to flooding and water contamination.

CEGAH teamed up with Public Charter School 1 from Denver, Colorado, meanwhile, in launching the Justa Stove pilot project.
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Equator Initiative
Environment and Energy Group
United Nations Development Programme (UNDP)
304 East 45th Street, 6th Floor
New York, NY 10017
Tel: +1 646 781-4023
www.equatorinitiative.org

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The Equator Initiative brings together the United Nations, governments, civil society, businesses and grassroots organizations to recognize and advance local sustainable development solutions for people, nature and resilient communities.

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