

A photograph of a person in a blue raft on a river, surrounded by dense green forest. The person is wearing a red helmet and a blue jacket. The water is calm and reflects the surrounding trees. The forest is lush and green, with many trees and branches visible. The overall scene is peaceful and natural.

# Friends *for* Conservation and Development

*Promoting Core Conservation*

**ANNUAL REPORT 2017**





The 18th Annual General Meeting of **Friends for Conservation and Development** is made possible through the full sponsorship of **San Ignacio Resort Hotel**

This publication is made possible through the sponsorship of BRC Printing

**Cover photo:** Kayaking down the Chiquibul River at Solitaire Valley. Photo by Tony Rath



Photo by Tony Rath ©

## MESSAGE FROM THE BOARD CHAIR

The non-governmental work that FCD does is, truly, a labor of love. Its mandate is the protection and conservation of 5.5% of our country's landmass. As one may imagine, this is not a very easy task. What is even more incredible, is the fact that FCD expends most of its effort in defense of the forest than anything else. This was not the original process of thought of the boys who started that environmental club in San Jose Succotz in 1989, but in 2017 this is the reality.

FCD and the *Chiquibul Forest* are known quite affectionately on the streets of Belize. Most Belizeans; however; will almost immediately align this forest to incursions by people who illegally cross the Western border. But the Chiquibul Forest is more than that. It is one of the last pristine areas in Central America. It is a part of the last pieces of the planets lungs.

I have been a supporter and a member of FCD for a while now. As President of the Board, one truly sees that labor of love in all its intricacies and its relationships with donors, government organizations, and many other institutions that truly care to help FCD with its success in its mandate. I have been a member of many non-governmental institutions and I believe this socio-environmental participation with FCD is way up at the top of any service I can offer my country.

This coming year, the plan is to make FCD more sustainable. We have organized and signed on to our strategic plan and we are going into 2018 with high hopes and energy to further strengthen the different areas of our beloved institution. We hope that we can develop a larger Membership and we want to foster more 'ownership' of FCD.

In my service at FCD, I have found out that saving a macaw is a more complicated idea than just the safety of a wild bird. To save a macaw, for FCD, means to be in the way of incursions by poor peasants who come into our forests to poach the macaw. By coming into this enormous wild space that is the Chiquibul Forest, it is difficult not to see the forests wealth, hence to get to the macaw chick, people will target xate palm, hardwoods, wildlife, gold, then farming and lately cattle ranching. Yes, Cattle ranching in the Chiquibul Forest! While all this is a core problem, the truth is, if we are going to save the macaws we must do one of two things: we either man the border of the Chiquibul Forest or we assist the sister institution in Guatemala, Asociacion Balam, to engage the people of the border villages on the Guatemalan side, who are approximately 260,000 people with 60% of that population being children and youth. It's complicated work, but not impossible and we will need all the help we can to save our forests.

If you are a member of FCD we want to thank you for that. We also want to ask you to let your friends and your networks know about FCD and we urge you to ask them to join us in our very important work.

I close with the words of the environmental philosopher John Muir, "When one tugs at a single living thing in nature one finds it attached to the rest of the world".

**Joe Awe**



## MESSAGE FROM THE EXECUTIVE DIRECTOR



**In** 2007, FCD valiantly signed a co-management agreement with the Government of Belize for on-ground management of the largest protected area in Belize, the Chiquibul National Park. With 285,964 acres in extent, we knew that the task would not be an easy one.

Ten years later, we can firmly say that our conservation effort has primarily focused in protecting the Chiquibul Forest, and all facets of FCD's work does have a relationship to this forest. Over this period, we have matured, learnt multiple adaptive management techniques, generated multiple partnerships, and created a plethora of Chiquibul champions. The struggles have been significant and many have left us on various segments of the road, but the rewards have been many. Our slogan, *Promoting core Conservation*, has been maintained and this can be more vividly observed today by the appearance of wildlife species and the recovery of their habitat on the western Maya Mountains.

As we close the ten years, and after having undertaken two, five-year co-management agreements we feel confident that Chiquibul is a far safer place for both wildlife and humans. The management effectiveness reviews conducted over these years demonstrate that FCD has been a practical, strong and effective partner to the Forest Department in securing the protection of Chiquibul. But more is yet needed. Conserving nature is a life-long enterprise. It doesn't stop, particularly for large areas such as the Chiquibul Forest.

Given that Chiquibul is safer and secure, FCD has further extended its range of monitoring and surveillance inside the park limits and outside the Chiquibul. Our analysis indicates that there is plenty of work yet required if the Chiquibul-Maya Mountains Massif is to survive. The massif consists of 14 protected areas, with 1.3 million acres of primarily broadleaf forest. As unique as it is, this area lacks a consolidated system of management and pristine areas are disappearing every year. Certainly, it is incumbent for FCD to do something more in the Western Maya Mountains, as directed by the strategic plan 2016-2022. FCD will need to muster and generate enthusiasm among others to do conservation efforts in the region. Having watch dogs is important. Watch dogs are a necessary presence in protected areas. The example of the Friends of the Vaca Forest Reserve, who are stepping up as vanguards of the reserve may well be one to emulate. At the same time, it is vital that young minds and hearts get involved in the Maya Mountains. The true success of an organization can be measured by its longevity of positive results through time with effective succession. With that in mind, I have purposely set up time aside to conduct mentorship and building capabilities of young staff. Mentorship is a process and one that requires proper planning and implementation. Thankfully, the new comer to our team - a Programs Director - now enables for me to put more attention to strengthening FCD as a learning and character institution.

With much enthusiasm and optimism, we look forward to the work ahead and I wish to thank you for your continued confidence and trust in the work of FCD.

**Rafael Manzanero**

# Partnerships

## Governmental Agencies

- The Forest Department
- The Belize Defence Force
- The Police Department
- Immigration Department
- Institute of Archaeology
- Agriculture Department
- Department of Cooperatives
- Department of the Environment
- The Mining Unit
- Ministry of Foreign Affairs
- Ministry of National Security



FCD is honored to have worked with more than 100 partner institutions from Belize and abroad. From the private sector and community based organizations to government and international organizations, they have made our work more effective and result oriented.



- National Protected Areas Secretariat
- Ministry of Forestry, Fisheries and SD
- U.S Department of the Interior
- U.S Fish and Wildlife Service
- Republic of China (Taiwan)
- British High Commission of Belize
- United States Embassy in Belize
- UK-Aid DFID/DEFRA



- Council of Agriculture and Forest Bureau of Taiwan
- Municipality of Melchor de Mencos
- National Protected Areas Council (Guatemala)
- Protected Areas Conservation Trust
- National Association of Village Councils
- Commonwealth of Municipalities of Southern Peten
- Ministry of Agriculture (Guatemala)
- Department of Human Development (Cayo)



DEPARTAMENTO DEL INTERIOR DE LOS ESTADOS UNIDOS  
PROGRAMA DE ASISTENCIA TÉCNICA INTERNACIONAL



## Community Based Organizations

- CMMB Watershed Alliance (Belize)
- Grupo Integral para Conservación de las Cuencas
- San Jose Succotz Village Council
- FCD Youth Environmental Group
- Cayo Womens Conservation Group
- Friends of the Vaca Forest Reserve
- Friends of Lower Dover
- Positive Environmental Group
- Calla Creek Village Council
- Benque Viejo 4H



## Non-Governmental Organizations



- Belize Nature Conservation Foundation
- Cayo Tour Guide Association
- Centre for Strategic Studies, Policy Analysis and Research
- Asociación Balam
- Guatemala Futura
- COACAP
- ACOFOP



- XMET
- Engaged Scholarship and Service Learning
- Foro de Justicia Ambiental
- Creation Care Studies Program (CCSP)
- Selvana Limited
- Wildlife Rescue and Referral Center
- The Wildlife Institute
- The Belize Zoo and TEC
- WildTracks
- Scarlet Studios



## International Organizations

- United Nations Development Program
- The European Nature Trust
- Forecastle Foundation
- Western Kentucky University
- Natural Habitat Philanthropy
- Wildlife Conservation Society
- World Wildlife Fund
- GEF-Small Grants Program
  - Summerlee Foundation
  - Concentric Advisors
  - Survival Wisdom
- RARE
- AfID



### Private Sector

### Other Sectors

- Mountain Equestrian Trail
- ViaVenture Foundation
- Pine Lumber Company
- Bull Ridge Company
- Blancaneaux Lodge
- Idealab Studios
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- BCSL

- OAS
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- Virginia Tech
- The Amandala
- The Reporter
- BACC
- FYFFES

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# Ten Years After

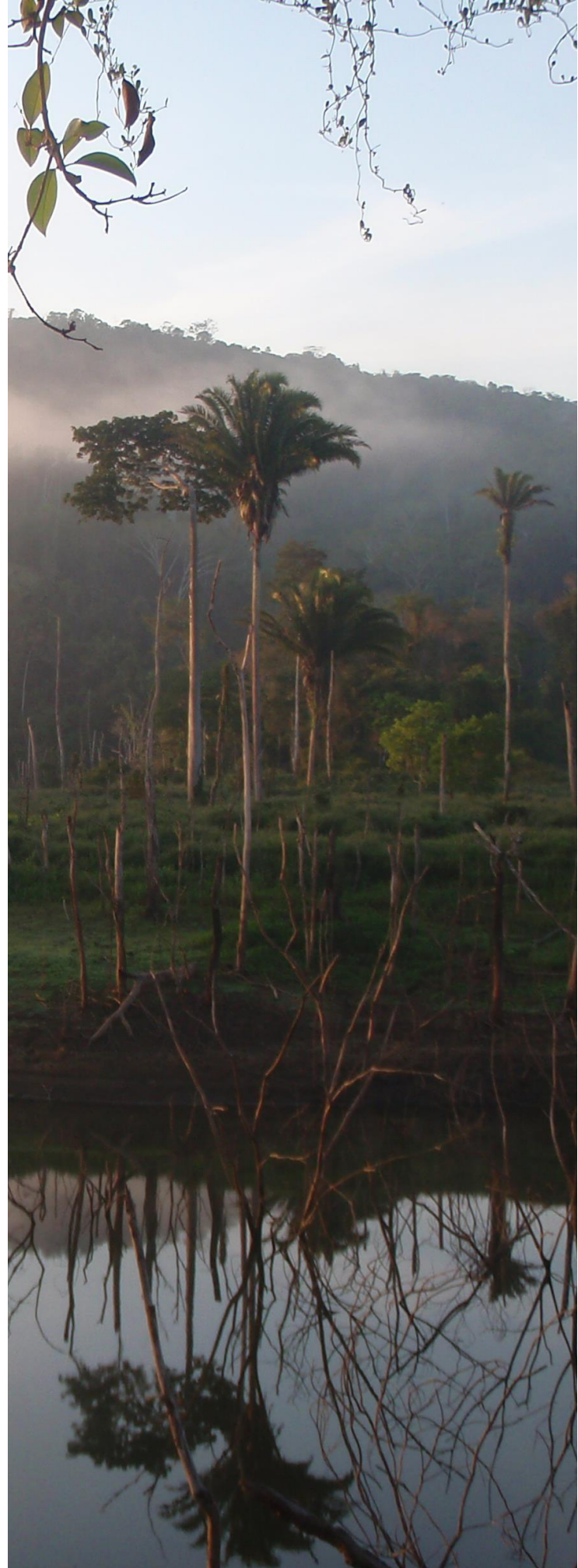
**2017** has marked ten years of ongoing conservation effort by FCD in the Chiquibul Forest. Time has passed so fast but not in vain. Over this time, we have learnt so much and our endurance and commitment has been put to the test. We have become more mature in our core values and we are more appreciative of the natural and cultural wonders that God has given us in Belize.

Armed with a strategic plan, FCD has been more focused in the areas highlighted. This has opened new partnerships, such as the World Wildlife Fund in areas of watershed management and improved our efforts in building our staff capabilities. Board strengthening has also been key and am pleased to say that a Board manual serves as a roadmap to the organization's governance.

Rapidly this year we started the reconstruction of efforts to safeguard the Vaca Forest Reserve. By doing so we extended our work in the Maya Mountain Massif. South of Chiquibul, in the Columbia River Forest Reserve, we also learnt more of the transboundary challenges facing Belize. No doubt that our experiences derived from the jungles of Chiquibul, makes us a prominent player in developing strategies and actions across the greater Maya Mountains.

Monitoring the 84 kilometers of protected areas along the western border through the assistance of the US Fish and Wildlife Service and endorsement from the Ministry responsible for Protected Areas has made us understand the volatile situation and the work that is yet needed to secure Belize's natural resources.

Back in Chiquibul we worked in earnest, particularly addressing gold panning, cattle ranching and agricultural fields. We explored new regions, added new staff, upgraded infrastructure, systematized techniques and gathered new partners and champions.



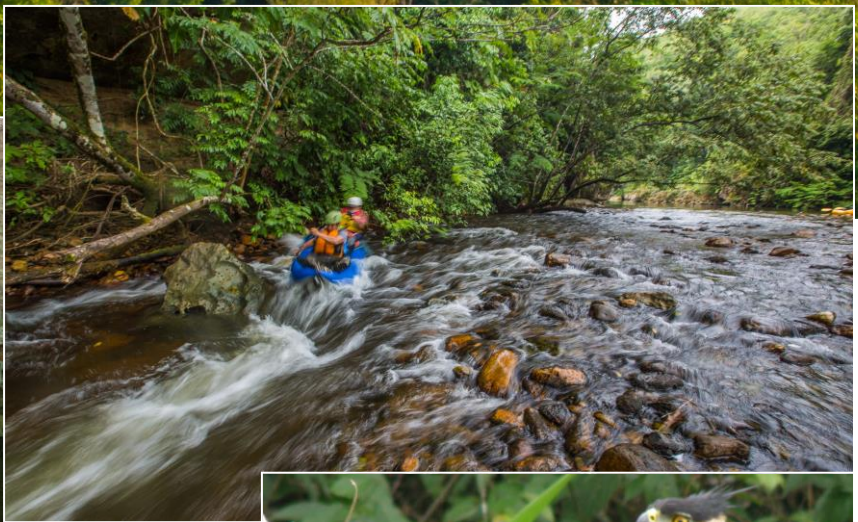


**Ten  
Years**



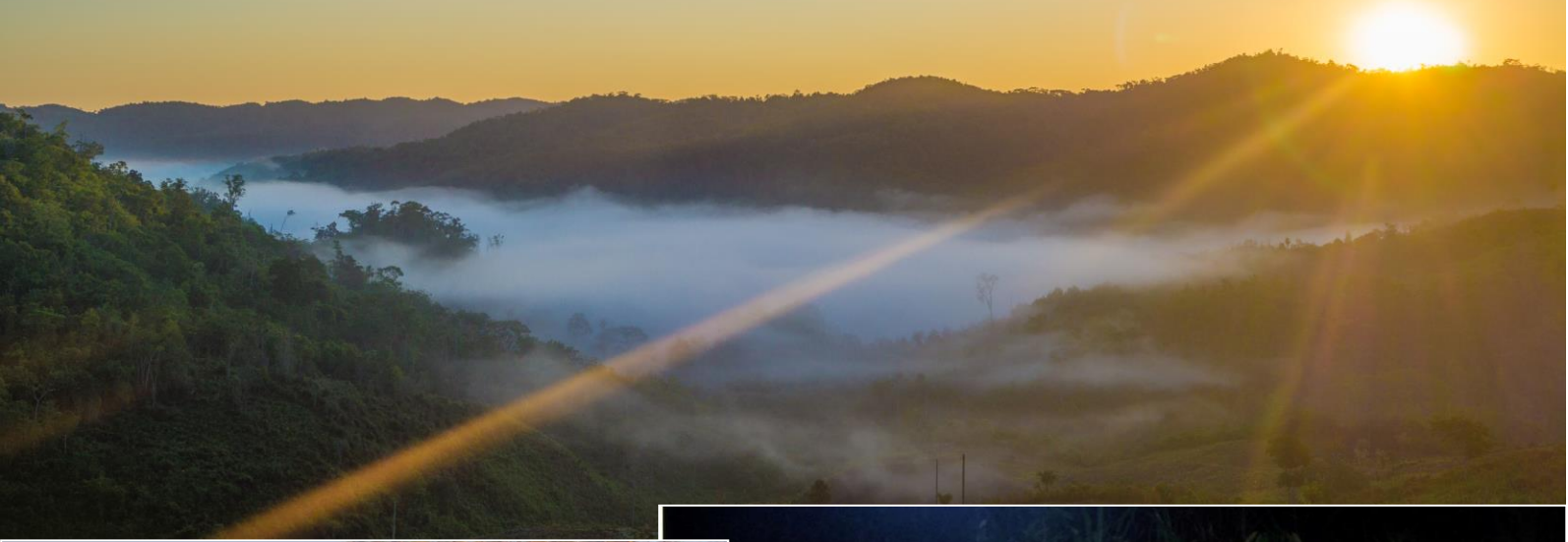
# FCD's Mission

FCD pioneers adaptive management of the Chiquibul Forest to improve the ecological and cultural integrity of the western Chiquibul-Maya Mountains.



# FCD's Vision

FCD envisions healthy terrestrial ecosystems that are sustainably managed for Belize and the region.



# Forest Protection



**Like** other previous years, we spent most of our efforts conducting monitoring and surveillance with the sole purpose of protecting the Chiquibul ecosystem and its inhabitants, namely the wildlife species. Park Rangers, working closely with personnel from the Belize Defence Force and the Police Department were deployed to the various conservation posts on two week shifts. Without the availability of a tractor or

other type of vehicle to assist in the insertion and extraction of personnel, all staff spent the year hiking on every shift to the remote areas of the Chiquibul National Park. The remotest areas are Ceibo Chico and Rio Blanco. The aim of these conservation posts has been to detain and control agricultural farming and gold panning activities. These two illicit activities remain the key threats to the biodiversity, with cattle ranching a developing phenomenon.

Personnel took all precautions, and proper planning led us to conduct successful interventions with no serious injuries. Our efforts proved that with adequate planning and commitment the monitoring and enforcement activities can be successfully implemented. Alone in a period of 6 weeks, FCD staff centered their efforts in Ceibo Chico, resulting in the capture of over 15 gold panners.



By September a new conservation post was inaugurated in the Caballo region, located on the northern region of the Chiquibul National Park. This meant further deployment of staff into another area. The Cebada Conservation Post, meanwhile was started and will be finalized by the 2018 dry season. With the construction of these new conservation posts, FCD's aim to have a presence on strategic locations is formidably taking place. This has meant a higher level of coordination with security agencies; a more robust system of screening for potential rangers and a more systematic Ranger training program. This year park rangers underwent training on first aid and rescue, spatial monitoring and reporting tool, and specific efforts were made to mentor Chief Rangers by the Park Manager.



## PROGRAM HIGHLIGHTS

- Over 99 patrols conducted in the Chiquibul Forest
- Over 4,550 man-days presence on 3 CPs
- Caballo Conservation Post inaugurated
- Cebada Conservation Post began
- 3 training activities undertaken

# Research



**The** Research Unit under the guidance of FCD's Biologist, Boris Arevalo undertook the second macro-invertebrate research in order to assess the state of Chiquibul's rivers and streams. This five month research concluded that the Chiquibul Forest streams presently have good water quality as reflected by high SIGNAL 2 Site Scores and macroinvertebrate family richness, but cautioned that gold extraction (legal and illegal) in the Southern Chiquibul River is reducing water quality, reflected by the significant high mean abundance of macroinvertebrates Very Tolerant to Organic Pollution. The recommendations are to continue putting into effect monitoring and enforcement operations to address the illicit activity and to continue assessing macroinvertebrate communities in the Chiquibul Forest to better understand observable changes in both abundance and richness and to correlate if such observable changes are natural fluctuations or a consequence of anthropogenic disturbances in the area.



The other area of research conducted this year was specifically on biological monitoring of scarlet macaws. Park Rangers also assisted the Research Unit in safeguarding nests from poachers for a period of three months. Although the breeding season started slow, a total of 9 breeding pairs were reported, resulting in the laying of 24 eggs. Eleven chicks hatched and eight of these chicks were able to fledge successfully into the wild. Three of the

chicks that perished were lost due to natural predation. With the passage of Hurricane Earl in August of 2016, three of the most successful scarlet macaw nests were destroyed, thus it was unclear how the macaws would have responded during the 2017 breeding season.

## PROGRAM HIGHLIGHTS

- 2<sup>nd</sup> macro-invertebrate assessment concluded
- Results produced and disseminated
- Biological monitoring on macaws conducted
- Two poachers detained and processed in court
- Eight chicks made it to the wild successfully



# Cave Preservation



**Although** the Karst Management Unit consists of a small team, the work they do is critical in maintaining the integrity of the Chiquibul Cave System. This set of caves starts in the Chiquibul Forest Reserve, crosses the park and ends in Guatemala. Protecting this cave has taken the Karst Management Unit to develop a Volunteer Mapping Team,

train them and have them avail to continue mapping this cave, which was first explored in the early 1980's. Protecting it has also meant monitoring for any advancement of humans in the area. To do this, park rangers have joined to provide support particularly in the third set of caves, which appears nearby the Belize-Guatemalan border.

Throughout this year, the Unit organized several expeditions into Actun Kabal, Actun Tunkul and Cebada. Their reports indicate that one of the lurking threats is the advancement of agricultural fields. This is not new and for this reason over the last three years FCD has been pushing for the construction of Cebada Conservation Post. It has taken two years in the planning and it is expected that by early 2018 this will be operational.



Meanwhile, the Karst Management Unit continued monitoring, documenting features and exploring the karstic formations. Several other caves were also discovered and documented. It is evident that unlike other years, the human footprint in the interior of the Chiquibul Forest is less and thus the first set of caves is not under human threat.

This year, the Karst Management Unit also undertook several trainings to learn new methods of mapping and use of specialized equipment. It also revamped the Chiquibul Cave System Working Group, whose purpose is to provide technical guidance in the management of the System. And by the end of the year, FCD successfully brought together Institute of Archaeology staff and their counterparts from Guatemala to discuss mutual strategies for the protection of the System which meanders across borders.

## PROGRAM HIGHLIGHTS

- Volunteer Karst Mapping Team created
- Chiquibul Cave System Working Group revamped
- Six expeditions conducted to explore the system
- Karst Management Unit trained on mapping tools
- Three new features documented
- First bi-national technical session held on CCS



# Vaca Management

**With** the pronounced number of activities underway in the Vaca Forest Reserve which includes capacity building of the Friends of the Vaca Forest Reserve and thousands of dollars invested on integrated farming systems, it is certain that Vaca Forest Reserve has entered a new system of long term community management.

Just at the start of the year, FCD with financial support and endorsement from the Government of Belize started a new era of work in the area after an absence of two years. The Chiquibul Forest Investment Initiative provided funds for hiring of two field technicians for the Vaca Forest Reserve. With a three-person team, the work started in earnest. The first task was to generate a data base of persons occupying the reserve and those adjacent to the area. The Forest Department subsequently started a mapping exercise with the intent of organizing farmers in the area. Separate to this exercise, the Friends of the Vaca Forest Reserve identified new leaders and 23 farmers



officially became members of the community based organization. In addition, the Vaca Forest Reserve Working Group was launched. Becoming a member has brought several advantages. Foremost of all, farmers operating inside the reserve have obtained continuous technical assistance from FCD's Landscape Manager. Farmers have been assisted in developing their farm plans and climate smart agroecological strategies have been supported, thereby facilitating farmers to better prepare themselves against the scourges of climate change. In addition, Vaca farmers with the assistance



of Asociacion de Comunidades Forestales de Peten (ACOFOP) have visited other farms in Guatemala where they have learnt new techniques and have been exposed to new systems of community forest management.

To sustain the capacity building process among farmers, FCD obtained the adequate endorsement from the Forest Department to construct a Farm School. This structure has been the venue for multiple trainings and reunions.

## PROGRAM HIGHLIGHTS

- Friends of the Vaca Forest Reserve reconstituted
- 2 exchange visits conducted
- 12 farmers assisted with agroecological systems
- A farm school constructed and made operational
- Vaca Forest Reserve Working Group reactivated



# Public Outreach



**This** year the work of the FCD Environmental Educators focused on the topic of WATERSHED. Watershed management is one of the cornerstones of FCD's strategic plan which takes us to work avidly inside the protected areas and outside in communities that are beneficiaries of the environmental goods and services derived from the Chiquibul-Maya Mountains.

Public Outreach had the purpose of sensitizing community members of the importance of the forest areas and the water resources. In Guatemala, thanks to the British High Commission Office, a Community Outreach Coordinator was hired to work in 11 communities located nearby Belize's border, including the villages of La Rejoia, Flores de Chiquibul and Monte Los Olivos. The Coordinator held meetings with community leaders, developed radio spots, led community clean up campaigns and visited schoolchildren and adults to sensitize them of the importance of trees. In total, 1,445 persons including students, teachers and parents were addressed.

Meanwhile in Belize, the Environmental Educator worked closely with the Bi-National Watershed Alliance leaders to guide them in planning their activities and conducting river conservation actions such as clean up campaigns and reforestation. Apart from this, his work of Public Outreach took him to several institutions and corners of Belize. In total, 7,522 students, 1,370 adults and 338 teachers were informed in 44 communities about the importance of the Chiquibul, Mopan and Macal Watersheds and were energized to be part of river conservation initiatives. Two communities (Bullet Tree and Calla Creek) received specific funds to enhance their conservation efforts, and in Guatemala the 9 communities received FCD funds to conduct community clean ups and reforestation schemes.



The Educator was also instrumental in launching once more the FCD Youth Environmental Group and worked towards making operational the Chiquibul Visitor Center.

## PROGRAM HIGHLIGHTS

- Over 1,445 Guatemalans addressed in 11 communities
- Over 9,230 Belizeans addressed in 44 communities
- Over 1,000 posters distributed in 44 communities
- 19 communities organized for river conservation
- FCD Youth Group reactivated with 20 members



# Station Management



**This** year marks the fifth year that FCD has been managing and administrating the Las Cuevas Research Station. Through the Protected Areas Conservation Trust's large grant several improvements were made to the station, aimed at generating more visitation and finances. With this, FCD moved finally to hire a resident family to stay year-round in order to provide services of food and accommodations for visitors. Likewise,

FCD moved the Karst Management Unit staff to this location to render support on first aid where necessary and the Research Team quarters was enhanced for the field staff.

This year a total of 425 persons stayed at Las Cuevas including 114 students from ten Universities and 39 researchers and support team. In addition, a total of 137 other visitors stayed at the station to enjoy the tranquility, delicious food, cool evenings and starry nights.

The Las Cuevas Research Station became lively too with the inception of special events. With the hard work of Dr. Isabelle Durand from the Belize Wildlife and Referral Clinic, a first time Marathon was made with an overwhelming 105 athletes competing in the half and full marathon. Later in the year Las Cuevas Research Station hosted 30 Toyota owners for the Toyota Chiquibul Challenge. Both events apart from educating Belizeans about the magic of the Chiquibul Forest, also served as fundraiser events.



This year, the Institute of Archaeology provided the endorsement for Dr. Holley Moyes to continue excavation and exploration on the caves and Maya mounds located on site. For a period of one month, several discoveries were made about the ancient Maya that occupied these forests.



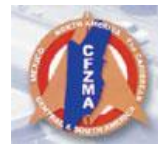
## PROGRAM HIGHLIGHTS

- Over 425 guests visited LCRS
- Resident family hired for LCRS
- Infrastructure improvements conducted
- Two special events hosted at LCRS
- Karst, Research and LCRS teams organized at LCRS



# CHIQUIBUL PROTECTION

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# Board and FCD Staff

## STRATEGIC GOAL

FCD aims to conserve the natural and cultural resources of the western Chiquibul Maya Mountains for the sustainable development of Belize.

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**Dr. Isabelle Durant – Vice President**  
**Dr. Filiberto Penados – Past President**  
**Mr. Joop Hendrikx - Secretary**  
**Mr. Lenney Gentle – Director**  
**Mr. Jorge de Leon – Director**  
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### STAFF

Rafael Manzanero, Executive Director

Esther Sho, Programs Director (From April)  
Derric Chan, CNP Manager  
Angelica Morales, Cook  
Gliss Penados, TED Unit/Station Manager (Until Jan)  
Joseph Hendrikx, Project Manager (Until Nov)  
Jose Sierra, CNP Ranger (Until July)  
David Tzul, Landscape Manager (Jan-Apr)  
Marvin Puc, CNP Ranger (Until April)  
Carlos Cocom, VFR Field Assistant  
Darrío Bautista, CNP Ranger  
Demery Harris, CNP Ranger  
Benjamin Cano, CNP Ranger (From Jan)  
Toby Moreira, CNP Ranger (From July)  
Erwin Chi, CNP Ranger (From Jan)  
Wilford Pook Jr., Environmental Educator  
Vicente Melgar, Envir. Educator (From Jan-July)  
Billy Lerma, CNP Ranger (Until Dec)  
Ryan Thompson, CNP Ranger  
Johnny Tzib, Karst Unit (Study Leave)  
Elroy Reyes Jr., Research Assistant  
Francisco Galicia, Research Assistant  
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Luceli Itza, Admin Assistant  
Boris Arevalo, Biologist  
Diana Garcia, Accounts Clerk  
Dery Harris, CNP Ranger  
Kenny Pech, CNP Ranger  
Marco Diaz, Chief Ranger  
Leroy Supal, CNP Ranger (Until Jan)  
Marcello Cal, CNP Ranger (From July)  
Benjamin Cal, CNP Ranger (Until Jan)  
Robin Magana, CNP Ranger  
Ellsworth Sutherland, CNP Ranger  
Ismael Landero, VFR Field Assistant  
Rafael Mesh, Assistant Station Manager  
Jairo Manchame, Landscape Manager (From May)  
Wendy Garcia, CCS Ranger  
Ronnell Melendrez, CCS Ranger (From Nov)  
Douglas Monroy, CNP Ranger (From Aug)  
Pedro Bol, Research Station Caretaker  
Dennis Alvarado, Research Assistant (From July)  
Gabriel Lopez, Research Assistant  
Roberto Tzib, Research Assistant (Until Jun)

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