

2016 STATE OF THE CHIQUIBUL FOREST



BACKGROUND

The Friends for Conservation and Development (FCD) signed co-management agreements, with Belizean regulatory agencies, for on site management of the Chiquibul National Park and the Chiquibul Cave System in 2007 and 2008 respectively. Since then the primary responsibility of the FCD is to conduct monitoring and environmental enforcement across the Chiquibul Forest. This report is a result of continuous monitoring activities derived from ranger observations, SMART data generated and scientific studies conducted by FCD personnel. FCD possesses evidential records to support the statements provided on this brief.

THE CHIQUIBUL FOREST

The Chiquibul Forest consists of three protected areas, namely the Chiquibul National Park, Chiquibul Forest Reserve and the Caracol Archaeological Reserve. These three areas encompass a total of over 437,000 acres representing 7.7% of Belize's landmass and shares a 43.5 kilometer border with Guatemala.

The Chiquibul Forest forms part of the tri-national Maya Forest ecosystem and due to its sheer size it plays a critical habitat for unique wild plant and animal populations, including endangered species such as the scarlet macaw, jaguar and tapir. Water and other environmental services are also priceless commodities derived from this forest. No comprehensive economic valuation has been conducted of these resources; however; it is considered that the Chiquibul Forest is worth over BZ\$3.43 billion.

THE ACTUAL SITUATION

In July 2014, FCD reported that by 2011, a total of 52,796 inhabitants lived in Guatemalan communities located along Belize's western border, exerting a high pressure on the natural and cultural resources of the Chiquibul Forest. Population increase in the rural areas of southern Peten, Guatemala is recorded to be 2.9% annually, therefore, a population explosion is evidently underway, that if left unnoticed, will further impact the entire block of tropical forests adjacent the border including the Chiquibul Forest. To address the situation, a multi-pronged approach is required including environmental law enforcement, sustainable livelihood programs, environmental education and community development in Southern Peten. These interventions must come primarily from the Guatemalan Government. At this time some effort is being put in place, however, a more focused and active approach must be instituted with an adequate multi-year financing. FCD's partner, Asociacion Balam is doing a novel work in the area and has instituted strong platforms that will bring change. One of the strongest platforms created is the Inter-sectoral Roundtable for Land and the Environment (MITA), comprised of over 40 institutions, endorsed by the Government of Guatemala to lead in the coordination and development of socio-economic and environmental opportunities for the people living on the Guatemalan adjacency zone.

In the Chiquibul Forest at this time, illegal logging and xate extraction activities have been reduced, which also indicates a reduction in poaching. Agricultural expansion, on the other hand, is still considered the primary threat to deforestation while gold panning is uncontrollable. The successes have been possible due to the presence and support from the Belize Defence Force and the Special Patrol Unit of the Police Department. But the panorama in Chiquibul is an extremely dynamic one, thus the trends can change rather quickly and we must remain alert and active.

The pressures exerted upon the natural and cultural patrimony of Belize has caught the attention of Belizeans who expect that more is required to control and contain the environmental crisis in the Chiquibul Forest. The death of Special Constable Danny Conoquie in 2014 raised further concerns of the seriousness of the environmental challenges faced and the limited resources and determination given to address this situation in a concerted manner.

FCD has been able to increase its surveillance and monitoring system due to the increase of rangers across the range. This has enabled us to intercept more of the activities, document and be more effective in containing the environmental crimes, yet the long term effort is dependent on the financing. Thanks to PACT and other institutions such as the British Embassy, US Embassy, Taiwan Embassy, USDOJ, USFWS, FAO, DFID and multiple individuals, the work has progressed. The more recent Government support, through the Chiquibul Forest Investment Initiative, launched in August 2016 promises to further improve our capabilities and capacities to mobilize a presence on key hotspot areas, thereby reducing further environmental degradation of the Chiquibul Forest.

ENVIRONMENTAL IMPACTS IN THE CHIQUIBUL FOREST

Xate extraction



In 2007, approximately 1,500 Guatemalans were combing the Chiquibul Forest illegally for *xate*. By 2010 it reached its peak. In 2012, a FCD study¹ showed that *xate* populations in the Chiquibul Forest were under stress and that the species faced commercial to local extinction if the illegal harvesting trend continued. In 2015, FCD's second assessment² indicated that a decrease change of 50.5% was recorded in the density of illegally harvested *xate* leaves

while the productive capacity of the fish tail *xate* had increased by 10% between the periods 2012 and 2015, for an estimated value of US\$0.577 million. By 2015, 70.3 *xate* leaves per hectare were harvested illegally with an estimated economic value of US\$0.482 million. The decrease in *xate* extraction may be attributed to one or more of the following factors: Increase in law enforcement patrols in the Chiquibul Forest; changes in market price and demand for the product; an increase in the density of leaves with herbivory and/or the engagement of *xateros* engaging instead in other illicit activities.

¹ An assessment of Xate populations and the effect of habitat complexity on xate stocks in the Chiquibul Forest, Belize, 2012. FCD

² Xate Stocks In the Chiquibul Forest: An Economic and Ecological Valuation Assessment, 2015. FCD

Patrols in the Chiquibul continue documenting illegal *xate* extraction but this has reduced extensively while camps located and destroyed are usually found with a few *xateros*. *Xate* leaves are locally sold by bundles of 40 leaves at a price of 15 quetzales or US\$2.20. The last *xatero* caught in November 2015 had over 6,600 leaves.

Illegal Logging



FCD's 2012 illegal logging assessment³ indicated that Belize had an approximate economic loss of US\$9,448,144.00, due to illegal logging, causing an approximate loss of US\$290,177.00 in royalties alone. By 2015, FCD's other assessment⁴ indicated that the Illegal Logging Zone of Influence (area impacted by illegal logging) had shown an increase of 2.5 times expansion of area impacted from 2010 to 2015 and appeared to have reached its saturation point by 2014.

From May 2014 to May 2015 a 3.3% increase in area expansion was documented. The present illegal logging zone of impact is approximately 45,567 hectares or 4.4 times bigger than the Caracol Archaeological Reserve and extends up to 17 kilometers inside Belize, in the Chiquibul. Overall, a total of 14,134,800 board feet of mahogany and cedar have been illegally extracted from the Chiquibul Forest, having an estimated monetary value of US \$30,047,116.00.

Patrols across the Chiquibul landscape, however, have reported no new illegal logging activity since September of 2014. The forest has remained silent from chainsaws though it is uncertain for how long this will remain. FCD rangers remain vigilant.

Gold Panning

In 2014 Guatemalan gold panners were active up to 8 kilometers inside Belize and had moved further south, away from the Ceibo Chico Conservation Post, which originally had been installed in 2012 to reduce the gold panning activity. The area where groups of gold panners are known to occur is remote, rugged and dangerous to operate due to the rocky terrain. The area of impact has seriously been altered. FCD's stream studies⁵, demonstrates that the impacts are already started to be felt on the headwaters of the Chiquibul watersheds where erosion, garbage and faecal deposits have been documented, caused by the small but distributed number of Guatemalans operating in the area. A concentration of pollutant resistant microbes and macro-invertebrates indicates that the area is already being contaminated. FCD will conduct another study in November 2016 to further establish a baseline of the impacts occurring on the highest points of Belize.

³ Illegal Logging in the Chiquibul Forest: An Economic and Ecological Valuation Assessment, 2012. FCD

⁴ Illegal Logging in the Chiquibul Forest: An Economic and Ecological Valuation Assessment, 2015. FCD

⁵ Freshwater Macro-invertebrate Communities in Streams of the Chiquibul Forest. August 2014. FCD



Gold panners caught in November 2015 were found 10.5 kilometers inside the Chiquibul National Park. They claimed selling the gold at \$150.00 quetzales per gram (US\$22.00 per gram). Persons from Guatemalan towns such as Poptun and as far as Flores and Izabal are known to frequent the villages in search of buying gold.

In April 2016, three gold panners captured in the Ceibo Chico area reported that they no longer used the streams to pan for gold but that instead they were opening trenches away from the streams and that the bedrock contained the gold. Villagers from Monte Los Olivos, and other nearby communities were reported of participating in the collection of bedrock, transportation and pulverization of the rocks in their village. On the 13th of May, 2016 three Guatemalans were detained confirming the activity, another 12 to 14 of them escaped.

Agricultural Farming



Deforestation as a result of agricultural farming by Guatemalan farmers inside the Chiquibul Forest is a recurring activity since 1987. At that time satellite imagery recorded 113 hectares of broadleaf forest already impacted. From 2000 to 2013 an area of 2,525 hectares were converted into agricultural farms. From 1987 to 2013, the accumulative area deforested through expansion of the agricultural frontier was estimated at 3,615 hectares.

FCD's 2015 report⁶, using satellite imagery analysis indicated that by October 2015 an accumulative total of 3,772.5 ha (9,318 acres) had been deforested in the Chiquibul. The deforested and impacted area is concentrated along the 43.5 kilometre western border that the Chiquibul Forest shares with Guatemala, and can extend up to 2.5 kilometers inside Belize. Guatemalan farmers traditionally plant black beans, corn and pumpkin. The data indicates that from May 2013 to October 2015 there was a recorded increase of 157.5 ha. in deforested area, which represents an average of 78.75 ha per year. This represented a 60.6% less than the historical annual rate of deforestation recorded from 1987 to 2011 (200 ha annually). The 2016 results⁷, however, are not promising. Based on satellite imagery analysis and interpretation up to April 2016 an accumulative area of 4,111.36 ha. had been deforested; this is 338 ha. more than in 2015.

Deforestation as a consequence of agricultural encroachments in the Caracol Archaeological Reserve and Chiquibul National Park, remains the main threat to the ecological and cultural integrity of the forest. In November 2015, an adult and two children became the first ones to be detained for milpa farming. The two minors were released but the adult was charged

⁶ Deforestation In the Chiquibul Forest. November 2015. FCD

⁷ Deforestation In the Chiquibul Forest. July 2016. FCD

Bz\$6,000.00. Unable to pay the fine the person is now in prison. This year, other Guatemalans were intercepted though many made their escape. After the incident with the fatal shooting of the minor in Sapote 2, patrols in the area were reduced although it is vital to maintain the presence, since Guatemalans are persistent in using the land.

FCD maintains that conservation posts play an important role in deterring further deforestation along the western border due to farming, and expects that with the building of another two conservation posts, this will help address deforestation in the hotspot areas.

Poaching and Pet trade



Illegal hunting (poaching) within the Chiquibul Forest had been increasing over the years due to an increase of *xatero* and logging activity further into Belizean territory. Targeted species include game birds, deer, peccaries and all other game mammals. FCD's, 2013 research⁸ concluded that effects of poaching are found throughout the Chiquibul Forest and is not isolated to the area near the western border. The 2016 research⁹ results show that overall game species mean abundance

was not significantly different between 2013 and 2016, but some species such as the Baird's Tapir and White-lipped Peccary were recorded more frequent during the 2016 surveys.

Scarlet macaws, known as Chiquibul's emblematic species have also been targeted over the years by wildlife traffickers. Locally macaws are known to be sold for up to Q14,000.00 or Bz\$4,117.00 in Peten. The 2013 report¹⁰ recorded a total of 22 *xateros*/poachers sighted, of which two were intercepted by FCD rangers. The abundance of make-shift camps recorded at the time suggested that there was a high concentration of individuals engaged on illegal activities in the study area. During the 2014 macaw breeding season, a total of 10 nests were monitored of which 31 eggs were laid. Of the total number of eggs laid 13 hatched but only 8 chicks fledged. Poachers managed to steal 4 chicks from their nests. In 2015, FCD placed a more robust patrol program and started a hand-rearing of macaw chicks that were at high risk of being stolen. As a result none of the macaws being monitored were lost to poaching and instead of 7 macaw chicks making it into the wild, a total of 15 successfully fledged into the Chiquibul wilderness. In 2016, 14 chicks fledged successfully from their nests while an additional five chicks that were at risk of being poached are being hand reared. Re-stocking the wild population is a success story, however, macaws are still being stolen by Guatemalan poachers. Last year two Guatemalans were arrested with macaws while reports indicated that people from the village of La Rejoya, Guatemala were known to have some 8 to 10 macaws for sale.

⁸ Effects of Poaching On Game Species Communities in the Chiquibul Forest. April 2013. FCD

⁹ Effects of Poaching On Game Species Communities in the Chiquibul Forest. June 2016. FCD

¹⁰ Scarlet Macaw Monitoring Program. Final Report – Macaw Nesting period 2013. 2013. FCD

In 2014 Guatemalan Police authorities confiscated 70 red lored parrots and 38 white fronted including Brown hooded parrots in boxes (see photo) that were left on the road between the village of Calzada Mopan, Dolores and Melchor de Mencos. There are strong indications that the 108 parrots confiscated originated from Belize and has raised concerns that the wildlife trafficking may be impacting Belizean wildlife populations at a large scale.

Cattle ranching



Cattle ranching appears as a new growing threat in the Chiquibul landscape. Over 90 heads of cattle are known to be found in the area of Valentin, Cebada and Rio Blanco. Land transformation from agricultural farming to cattle ranching in the Maya Biosphere Reserve in Peten is a common practice and has devastated large areas of the Guatemalan biosphere. Cattle ranching is a motor and incentive of deforestation. The Government of Colom in 2010 exerted a high level of pressure to

get rid of the *narcogaderos* and although they were partially successful then, the struggle still continues now. At the time Colom inaugurated a Green Battalion comprised of 250 soldiers with the intent of recovering the Laguna del Tigre from drug lords and cattle ranchers. In the 2009-2010 period alone more than 16,000 heads of cattle were removed from Laguna de Tigre and Carmelita in northern Peten. Cattle ranching is a practice run by wealthy and powerful families, who use poor people to advance into new lands. It appears that some poor villagers in southern Peten are giving up their lands due to pressure from these wealthy individuals. Cattle ranchers near the border to Chiquibul are becoming more pronounced and formidable steps must be taken to extract them before they become well rooted in the protected area.

Human Settlements



Across the Chiquibul landscape at least 6 settlements are known to be active. These settlements are mainly comprised of thatch roof huts, although one is a two storey board house. Four are known to occur in Cebada, 1 in Valentin and 1 in the Caballo area.

In March 2016 joint patrols destroyed two properly constructed houses located in Cebada. At the time no persons were found in them. Another house, a cattle coral and a large pasture with 30 heads of cattle were also found in the Cebada area about 30 meters inside Belize in the Chiquibul National Park. These were not destroyed because of its proximity to the border.

Settlements normally occur with a separate kitchen, a separate house for storage of corn, an outhouse toilet and usually fruit trees around the compound. Most houses are usually found within a larger field of crops of corn, beans and/or pasture.

Marijuana cultivation



Marijuana cultivation is becoming more evident in southern Chiquibul in the area of Cebada. On the northern section of the Chiquibul there may well be a trend developing as well. In 2013 security forces destroyed over 37,500 plants of marijuana inside the Chiquibul National Park. In 2016 during an operation in the Cebada area, 3 fields with marijuana plants were found within rows of corn. Over 15,000 plants were documented though only two fields

were destroyed (some 5,000) and two persons were detained with two firearms.

The area is vast and because of the remoteness and ruggedness, Guatemalans have been known to plant marijuana behind mountains and in tucked away valleys. Aerial reconnaissance have been more effective in documenting marijuana fields.

In the northern part of Peten, in the Maya Biosphere Reserve, clandestine airstrips had been used for drug trafficking. Military interventions were used to blow up the airstrips. The forest, there is also vast and remote. Joint Operation Centers were installed to address this problem. By 2010, over 1,000 law enforcement agents from various agencies operated in the Maya Biosphere Reserve primarily to institute governance of the land. In the case of Belize, Conservation Posts, rigorous patrols and continuous presence will perform as the main deterrence. All efforts should be placed to prevent drug barons from taking a stronghold in these areas for drug activity.

Firearms and shootings



FCD has recorded approximately 33 cases involving firearms and aggressions in the Chiquibul Forest. Since 2005 more than 51 firearms have been documented; 32 of these were confiscated. There are two recorded cases, one in Valentin and the other in Sapote where Guatemalan villagers came across and were heavily armed. One of the most recent cases, in 2014, occurred during the construction of the Valentin C.P when over 30 men from La Rejoya came to

threaten the workers on site. South Cebada is notoriously known to be dangerous, since persons encountered are usually armed, and are known to engage authorities.

Way Forward

In order to govern the Chiquibul Forest a presence is necessary. But this presence does not mean having human settlements (Belizean villages) inside the protected area. The environmental goods and services derived from this forest warrant for this ecosystem to be maintained in a stable condition. The environmental values are vast and in the future the water resources, timber and wildlife will be a more precious commodity for Belize and the region.

At a time when other protected areas have been lost, FCD believes that this biggest protected area in the country – the Chiquibul Forest, can be maintained for the long term with conservative investments. Top on the list of requirements are the needed resources (salary, transport, gear, equipment, insurance, training) to maintain a park ranger presence, and a forest road upgrade that can help mobilize personnel effectively. This work cannot be done alone, thus regulatory agencies must also have the resources to operate in the conservation posts and patrol the western flank of the park.

Internationalization of the challenges and diplomatic work is likewise necessary so that more attention be put by Guatemalan authorities in Southern Peten aimed at dissuading Guatemalans from plundering the resources from Belize. Efforts should be conducive towards promoting alternative livelihood opportunities, coupled with a more equitable land tenure system that provides the poor people in southern Peten a stable and regulated use of the Chiquibul-Maya Mountains Biosphere Reserve (Complex III), which they are presently occupying without any credible form of governance.



The Chiquibul Forest, observed largely intact. The time to save it is now.