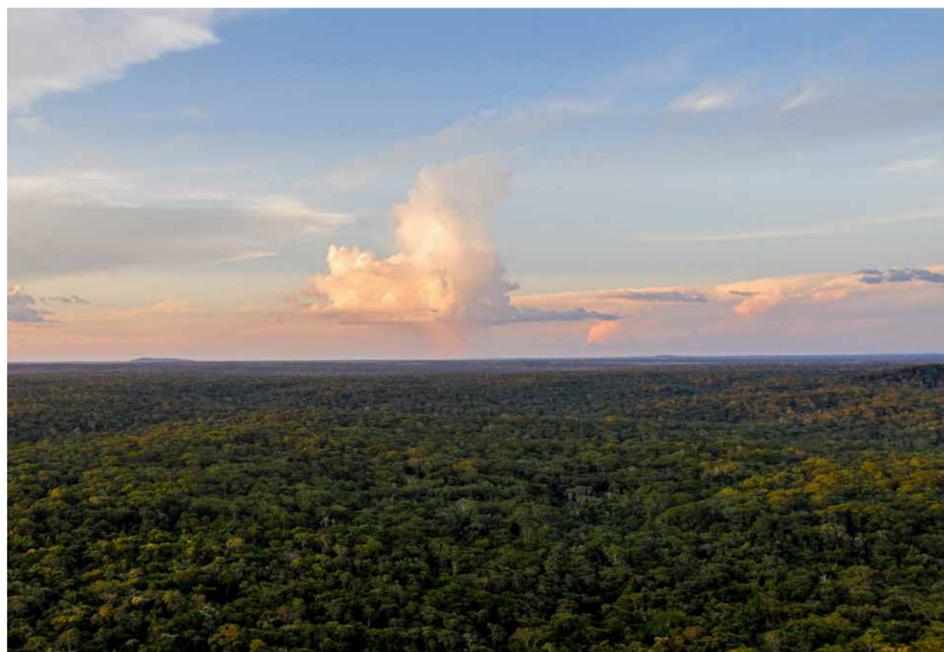


ANNUAL REPORT 2020

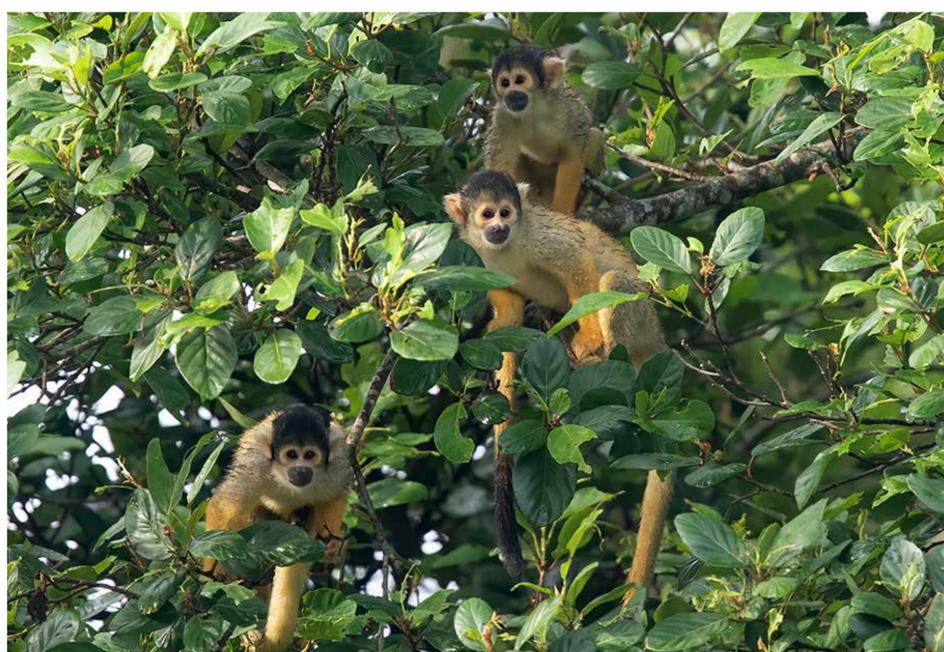




INDEX



Institutional message	4
About us	7
Where we work	9
How we work	11
What we did in 2020	12



Conservation	13
Protected areas	14
Territorial planning and monitoring	18
Conservation of species and their habitats	21



Sustainability 26

Wild products and food security 27

Sustainable agricultural production 30

Hydric management 33

Ecotourism and natural resources 35



Recovery 37



Communication and dissemination 41



Institutional management 45

Proposal design 46

Alliances 47

Financial management 47

Our team 48



INSTITUTIONAL MESSAGE

2020 was the first year of implementation of the new Institutional Strategic Plan 2020 - 2024, which highlights the need to achieve objectives and goals aimed to generate impacts on biodiversity conservation, restoration of ecosystems affected by fires and sustainable use of natural resources in the Chiquitano Dry Forest and related ecosystems.

However, the management of 2020 was conditioned by the regional, national and global context. In the last two years the Chiquitania, the country and the world were subjected to different situations that influenced, to a greater or lesser extent, the institutional work. From the devastating fires in Santa Cruz, the changes in the political scenario in Bolivia, to the global pandemic of COVID-19, made the FCBC adapt to different ways of acting and working in order to meet its strategic and operational goals.

The quarantine situation, the high risk in the work environment and the scientific and cultural lack of knowledge to respond to the global pandemic contingency, were determining factors in the working conditions of the institution and modified the work routines. In this context, FCBC through its governance, assumed the role of containment for all the institution's staff and for the work with local actors, and dictated a series of management guidelines that were implemented by the Executive Direction. The teleworking modality, the development of biosafety protocols both in the city and in the field, the permanent monitoring of health and control, training and the provision of the necessary inputs for compliance with the protocols were the priorities during the year.

Due in large part to this sanitary contingency, the execution of the projects planned for 2020 management suffered adjustments in their schedules. To improve performance, the support of local technicians of the institution in San Ignacio, Roboré and San Ramón was optimized, plans were adjusted through addenda with most of the funders and more efficient communication mechanisms were established, optimizing teleworking. The creativity, enthusiasm and willingness of all the Foundation's personnel made it possible to deal with this critical situation and carry out most of the planned work.

In addition, and in response to local needs, the Foundation supported several of the communities with which it works in the Chiquitania region by providing basic need supplies during the quarantine period, transportation so that they could travel to the population centers to collect their aid vouchers established by the central government, and the delivery of biosecurity supplies. All these actions were carried out thanks to funds redistributed and approved by the project financiers themselves, and in other cases, with own funds authorized by institutional governance.

A difficult year, but full of new experiences, personal and institutional challenges, where the adaptive capacity of the work team and the timely and correct decisions of the governance through the Board of Founders and the Board of Directors have been proven.





☾☾ 2020 has allowed us to grow in ways we never thought possible; we have learned new ways to carry out our activities, remembering how connected we are to the environment around us. ☽☽

Committee of Founders

Walter Ridder Saucedo, **president**; representative of **FAN**

William Shoaie Baker, **ice-president**; representative of **NUR University**

Lilian Painter de Wallace, **member**; representative of **WCS**

Board of Directors:

Karla Würth Pino-Ichazo, **president**

Lidia Sensano Rocha, **vice-president**

Rudy Guzmán, **member**



ABOUT US

The Chiquitano Forest Conservation Foundation (FCBC) is a Bolivian non-profit organization established in 1999 with the mission of promoting harmonious coexistence between society and nature in the Chiquitano Forest, through the knowledge, valuation and conservation of its natural and cultural heritage.

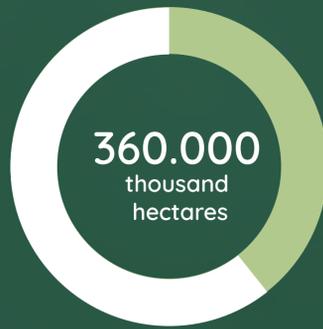
In its more than 21 years of work, the FCBC has promoted the design and implementation of more than 500 projects and initiatives at different scales with both the public and private sectors, in close collaboration with local actors and authorities in the region and with different local, national and international partner organizations.

Currently, the FCBC works along three strategic lines: conservation, sustainability and recovery. Within the framework of these strategic lines, the institution develops its activities in: protected areas, integrated land planning, conservation of species and their habitats, socioeconomic valuation of the forest, value chains of non-timber forest products, water management, climate change adaptation, dialogue and governance for the management of natural resources, nature-based solutions, sustainable agricultural production and ecological restoration.

Institutional impacts over more than 21 years of work



+ 2 million
hectares protected under
local governance



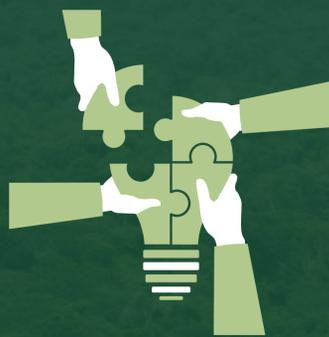
of private land under
integrated land use
planning



+ 200 communities
with access to safe water



1.400 families
benefited with forest
management plans



+ 2 local people
strengthened in their
technical capacities



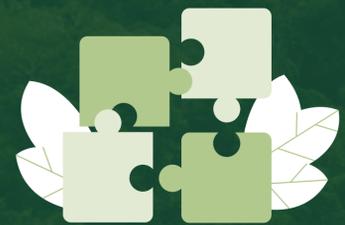
7 municipalities and 3
indigenous territories with
**integrated territorial
planning**



+ 280 families generate
income from the use of
non-timber forest products.



**+ 250 studies and
reports** related to the
Chiquitano Dry Forest



**Transboundary
conservation actions**
between Bolivia and Paraguay
(Chaco-Chiquitano) and between
Bolivia and Brazil (Chiquitano-
Cerrado-Pantanal).

WHERE WE WORK

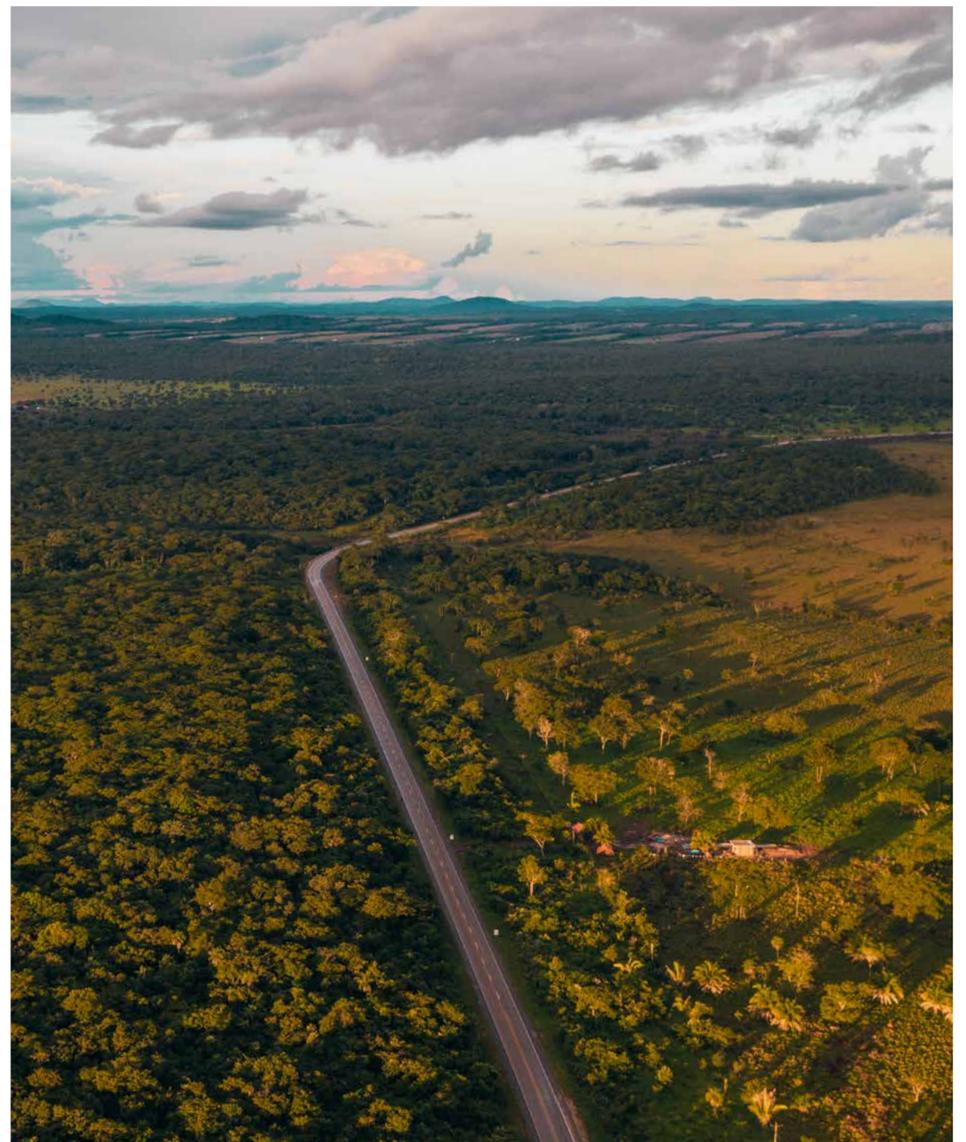
The FCBC is based in Santa Cruz de la Sierra, its geographical scope of action includes the entire department of Santa Cruz and focuses specifically on the Chiquitano Dry Forest and related ecosystems: the Cerrado, the Chaco, the Pantanal and the Amazon.

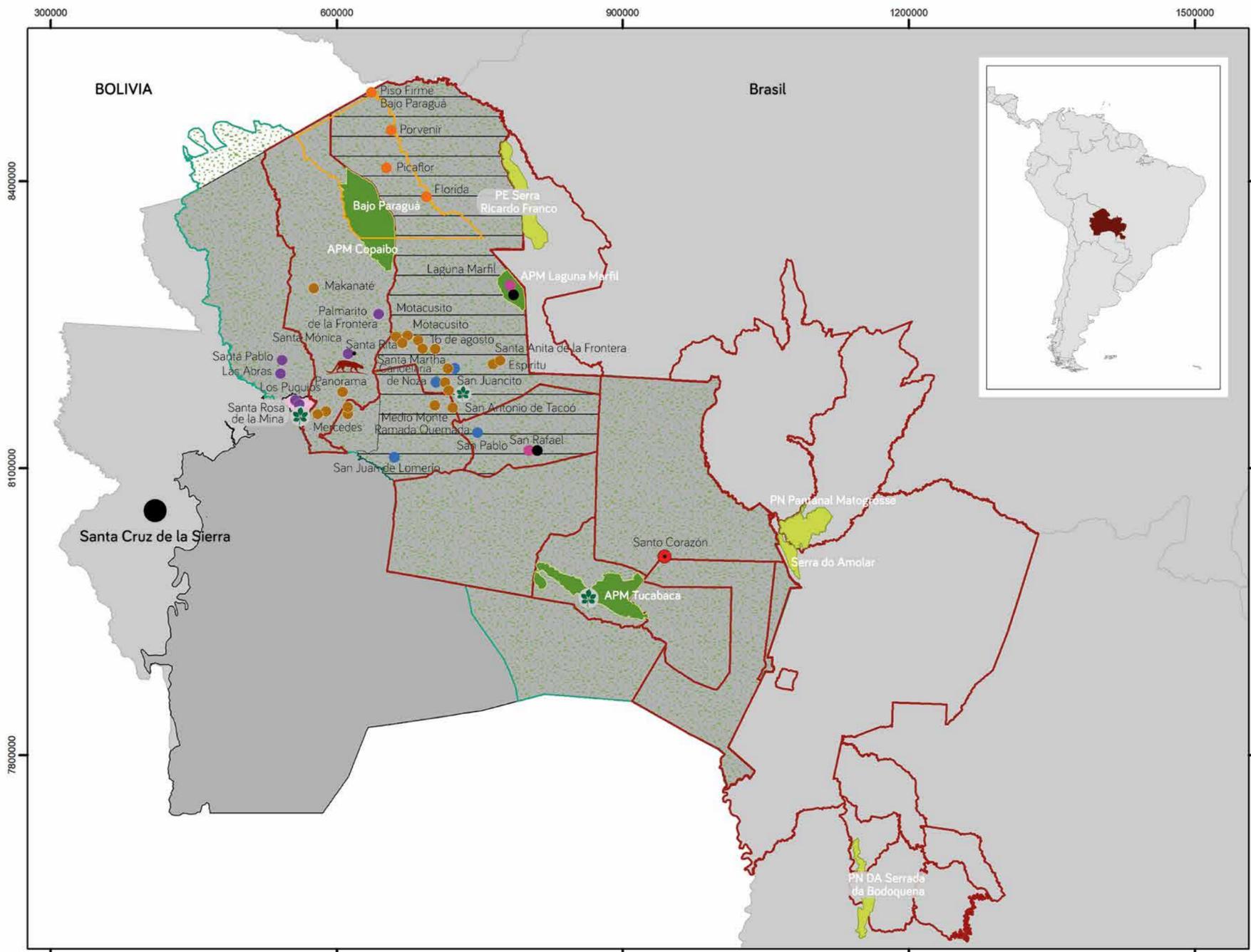
The Chiquitano Dry Forest comprises an ecoregion that extends almost entirely in Bolivia, particularly in the department of Santa Cruz and to a lesser extent is present in northern Paraguay and western Brazil. With an extension of more than 24 million hectares, the Chiquitano Dry Forest is the largest and best preserved tropical dry forest in the world. Six months of rainy season and six months of drought make this forest a very special ecosystem in its biodiversity, but also makes it extremely fragile, especially under the impacts of climate change.

This ecoregion contributes to two major water basins in South America: the Amazon and the Paraguay-Plata. The dynamics of the Gran Pantanal of Bolivia and Brazil and its influence in Paraguay depend on the conservation status of this ecoregion. In the Chiquitania, the main area of institutional work, there are 19 municipalities, 62 Indigenous Territories (Territorios Indígenas

Originario Campesinos - TIOC), 20 national and subnational protected areas, 405 communal properties and more than 5775 private properties under different production modalities.

Maintaining the ecological integrity of the Chiquitano Dry Forest is key to ensure the livelihoods of local populations, promote sustainable development and generate the necessary conditions for adaptation to climate change, especially in the regulation and provision of hydric resources.





Áreas Protegidas

- Áreas protegidas municipales (GIZ_SCP)
- Áreas protegidas municipales (Brasil)
- Reserva Bajo Paragüa

Regiones/Municipios de Intervención

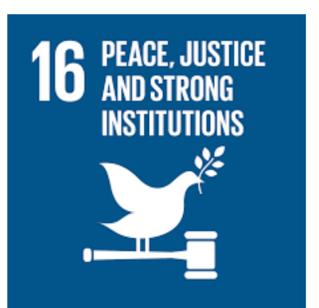
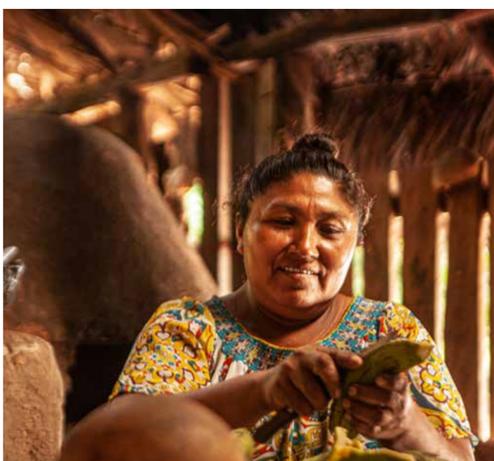
- Proyecto ECCOS
- Proyecto Junta de Andalucía
- Proyecto EAA-CISU
- Programa Restauración
- OBSCH 2
- Proyecto PRODEM
- Proyecto DAC/SOLIDAR
- Proyecto BMSC - PNUD
- Proyecto CISU 2
- Proyecto PNUD 2 y 3
- Comunidades Proyecto Junta de Andalucía
- Comunidades Proy. Almendra Chiquitana
- Programa de Estudio Bosque Seco Tropical sitio demostrativo de manejo integral Altavista
- Enlaces regionales FCBC

Where we work



HOW WE WORK

The 2020 management was framed in the new Institutional Strategic Plan 2020-2024, in which objectives and goals that contribute to achieve concrete impacts in the areas of biodiversity conservation and sustainable development, including a new thematic area; ecological restoration incorporated as a result of the devastating fires of 2019 in the Chiquitano Forest, have been established. In turn, the FCBC being a member of the International Union for Conservation of Nature (IUCN), contributes with its actions to the goals established in the three strategic areas of the global program for 2017-2020: valuing and conserving nature, promoting and supporting effective and equitable governance of natural resources, and implement nature-based solutions to address societal challenges, especially facing climate change, food security and local economic development. Both the Foundation's actions and those established in the IUCN program gear their results towards meeting the Sustainable Development Goals (SDGs) of the United Nations 2030 Agenda.

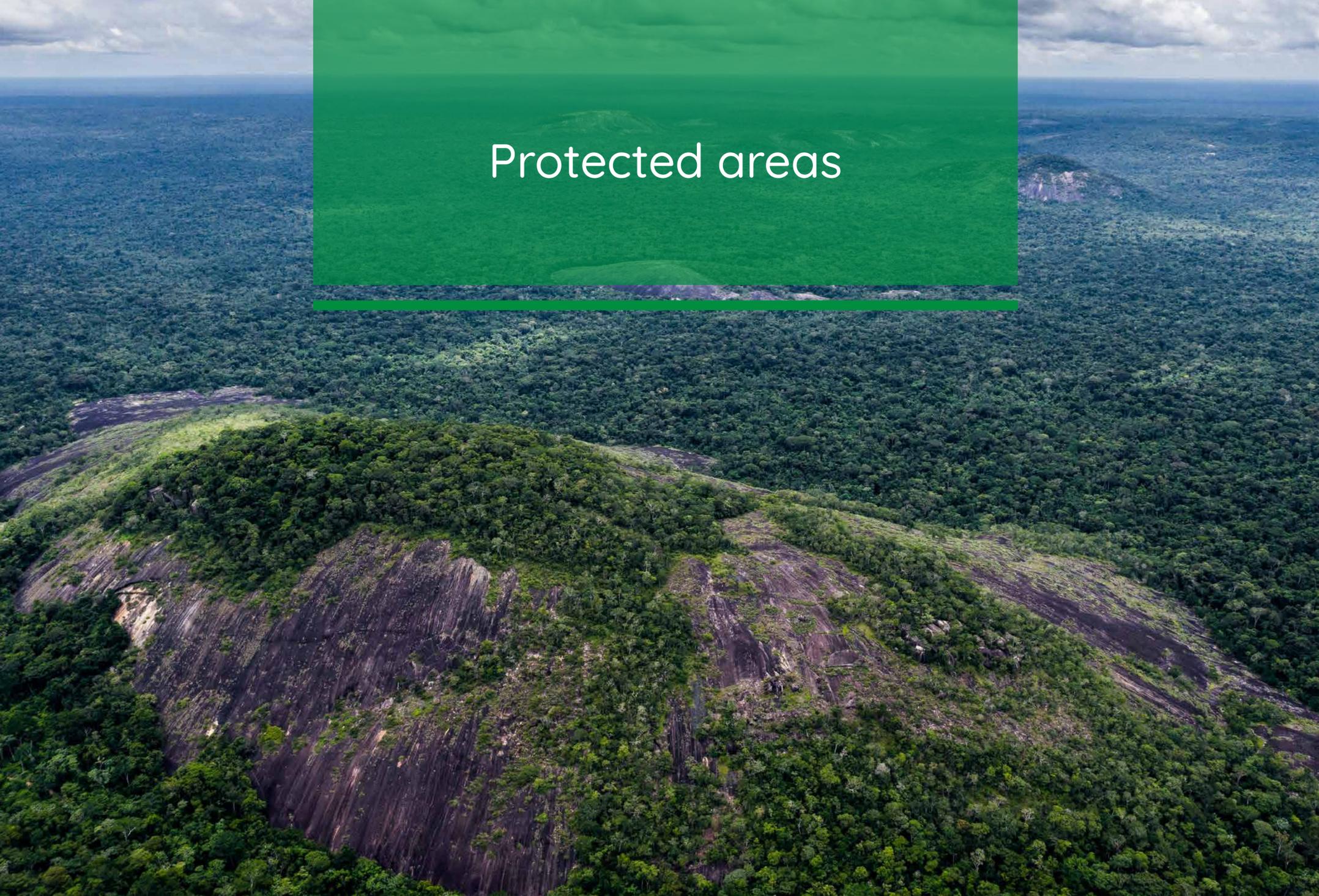


An aerial photograph of a dense, vibrant green forest. A dark, winding river or stream flows through the center of the image, curving from the top right towards the bottom left. The forest is composed of various types of trees, with some palm trees visible in the upper left quadrant. The overall scene is a lush, natural landscape.

WHAT WE DID IN 2020

CONSERVATION





Protected areas

Protected areas represent a star tool for conservation. These sites, as their very name indicates, are areas established for conservation purposes; each one of them responds to some type of category according to its creation objectives, legal figure and form of administration that grants them certain freedoms and restrictions.

Currently, the department of Santa Cruz has 37 protected areas (an area that represents 42.9% of the department's total territory), however, despite the fact that the number and percentage of the conservation areas' surface may sound large, these sites suffer from various pressures and threats from the outside, and also face internal challenges in order to continue to be the

biggest bet on biodiversity conservation in the department and the country.

There are several ways to contribute to the promotion and protection of protected areas; during the year 2020, the Foundation has actively contributed to this purpose through three fundamental actions: support for the creation of a new conservation area that allows to consolidate connectivity in a block of natural ecosystems of more than 5 million hectares, the creation of strategic tools for the operation and management of two protected areas, and the strengthening of the governance of protected areas and communities in the Chiquitano Dry Forest ecoregion.

A new protected area of almost one million hectares

The first major institutional action corresponds to a long-term initiative that the FCBC, the Autonomous Departmental Government of Santa Cruz (GADSC) and the Autonomous Municipal Government of San Ignacio de Velasco (GAM SIV), through the Sustainable Conserved Connected Ecoregions (ECCOS) project, co-financed by the European Union, had the opportunity to finalize. Through the local approval of the proposal for the creation of the Municipal Protected Area of Bajo Paraguá of San Ignacio de Velasco at the end of 2020, the dream of creating this Chiquitana protected area became much more tangible, and finally the declaratory law that enacted the protected area was given in the year 2021.

The new protected area of Bajo Paraguá in San Ignacio, in addition to its large extension -almost one million hectares (983,006 ha)- is a connecting piece between 7 protected areas, located in both Bolivia and Brazil. A remarkable feature is that this invaluable connecting site not only holds natural wealth, but also protects an imponderable component: the life of 4 indigenous communities (3 Chiquitano and 1 Guarasugwe).

People consulted for the creation of the Municipal Protected Area of Bajo Paraguá in San Ignacio de Velasco.

Conservation management tools

In addition to the creation of a protected area rich in nature and culture, the FCBC supported, through the ECCOS project, the participatory construction of the Management Initiation Plans of two Chiquitano protected areas: the Laguna Marfil Municipal Integrated Management Natural Area, in the municipality of San Ignacio de Velasco, and the San Rafael Municipal Protected Area, in the municipality of San Rafael de Velasco. These management instruments will serve as a guide not only to administer, but also to learn more about the characteristics, wealth and threats of the protected areas.

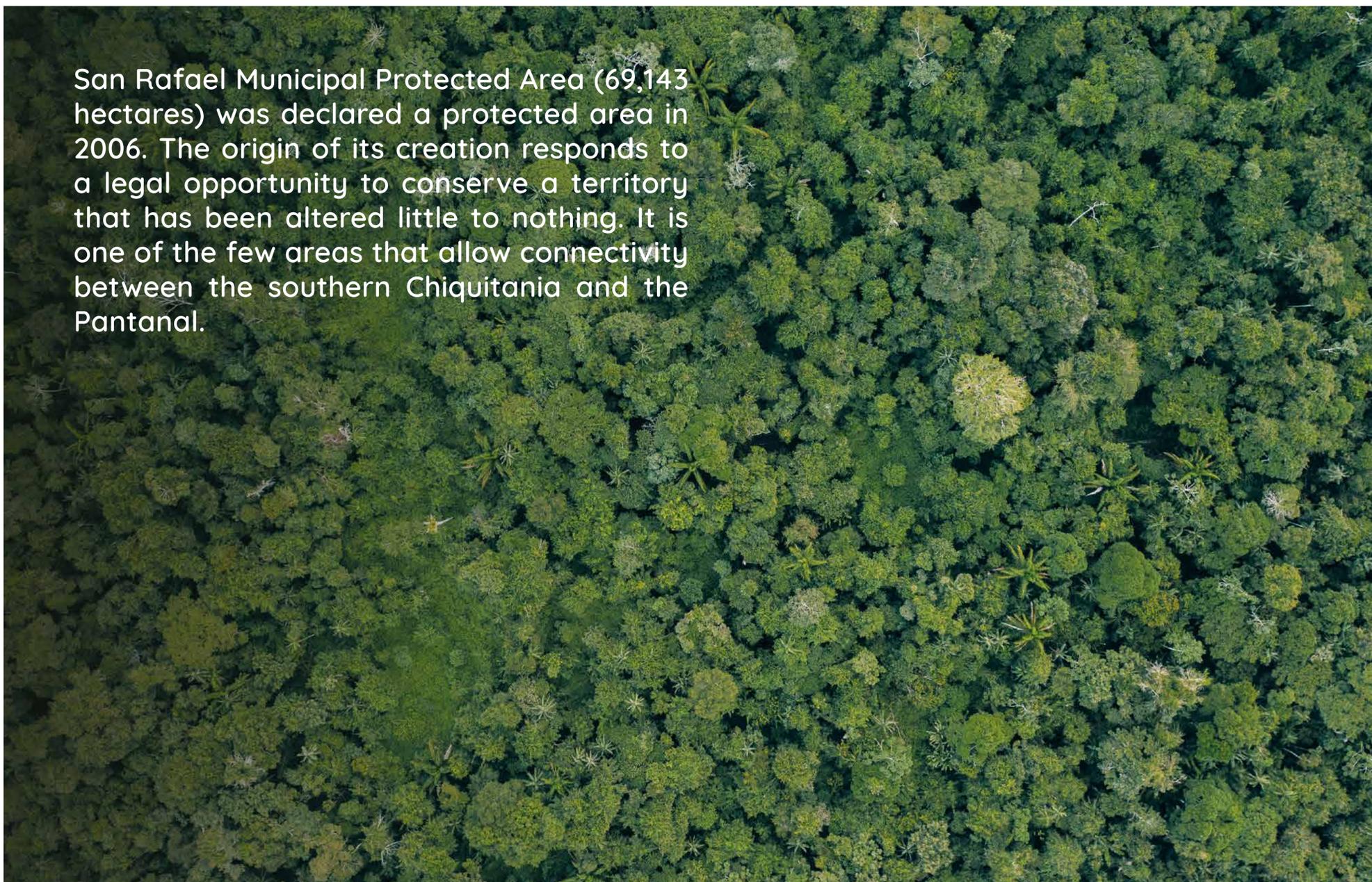


The Laguna Marfil Municipal Integrated Management Natural Area (71,055 hectares) was created on October 12, 2010. Its creation was motivated by the interest in the conservation of the body of water that it protects, given its productive potential of natural resources, biodiversity value, and scenic beauty.

To learn more about the area, read the document “Laguna Marfil: Water, people and biodiversity” here. 



San Rafael Municipal Protected Area (69,143 hectares) was declared a protected area in 2006. The origin of its creation responds to a legal opportunity to conserve a territory that has been altered little to nothing. It is one of the few areas that allow connectivity between the southern Chiquitania and the Pantanal.



Strengthening capacities for the care of natural areas and community livelihoods

The development and strengthening of capacities are efficient and vital actions for the protection of natural areas and the safeguarding of communities' livelihoods. That is why the FCBC developed, during 2020, different initiatives aimed at training at the level of communities and municipal technicians. After the 2019 fires, it became evident that community brigades are the first response to fire, and in the past year, with the support of the DAC project: Dialogue and Collaborative Support for Development Cooperation of the Embassy of Switzerland in Bolivia, and the Early Recovery Laboratory (LRT), funded by the United Nations Development Program (UNDP), the Embassy of Korea and the Foundation Puedes Creer of the Mercantil Santa Cruz Bank, more than 50 people from 9 Chiquitano communities were trained in prevention issues and basic techniques for forest fire control.

These trainings, combined with the adequate provision of equipment and clothing, enable local people to respond to fire events that threaten their communities and natural areas. In this sense, the FCBC, through the support of the DAC project, the LRT and Prodem Bank, equipped 4 forest fire brigades: 2 that belong

to the municipality of San Ignacio, 1 in the municipality of San Rafael and another one corresponding to the protection brigade of the Noel Kempff Mercado National Park.



Territorial planning and monitoring



The FCBC is aware that the conservation of the Chiquitano Dry Forest depends not only on the creation and management of the protected areas that hold these ecosystems, but also on territorial planning at different scales. This type of planning has multiple benefits, as it ensures that wildlife continues to have corridors through which to move, that the vegetation maintains its dynamics and composition, and that environmental functions (water and food provision, climate regulation, among others) are sustainable over time.

In 2020, the FCBC contributed to this fundamental pillar through the work of the Chiquitano Dry Forest Observatory. The Observatory is an

open-access information platform that, based on satellite and field monitoring, obtains information about the conservation status, restoration process and threats to the Chiquitano Dry Forest, with the purpose of generate alerts, reports, maps and other publications that help in the management of the territory and its natural resources.

The Observatory's monitoring work is divided into six main areas: loss of natural cover, fragmentation and connectivity, burns and fires, post-fire and deforestation restoration, precision pastures and climate.

In this sense, in accordance with its purpose and work axes, the Observatory produced 4 technical reports, 2 policy briefs, 2 scientific articles and more than 90 hot spot alerts, 30 reports of fire scars and 80 reports of precision grazing in 2020.

Beyond the number of informative materials published by institutional digital media, as well as by massive communication media, there is the transcendental importance of the information provided by the Observatory. For example, through the Observatory's studies, it is known that if the current trend of forest loss in the department of Santa Cruz continues, it is expected that by 2050 the department's forest area will be reduced from 25.1 million hectares to

12.8 million hectares; likewise, through scientific analysis, the Observatory has verified that the fragmentation of forests in combination with droughts and the multiplication of burns caused by human action, cause fire to spread progressively towards the interior of the forest, which means that the possibilities of forest fires, such as those that occurred in 2019, increase.

In short, the Observatory's work with respect to territorial planning is crucial because it provides timely information to technical teams and decision makers, so that they can reflect it in Territorial Integrated Development Plans, Land Use Plans, Management Plans and many other planning mechanisms that can determine the conservation destiny of priority areas in the region.

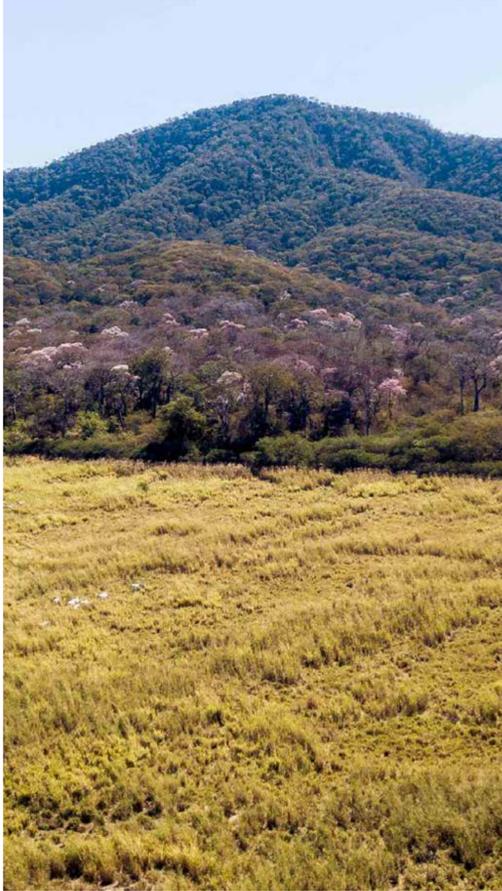


Technical reports:

Contributions to burn severity assessment in the Chiquitania. Integrating 3 case studies on the 2019 fires: Ñembi Guasu, Alta Vista, Laguna Marfil

To read the document:

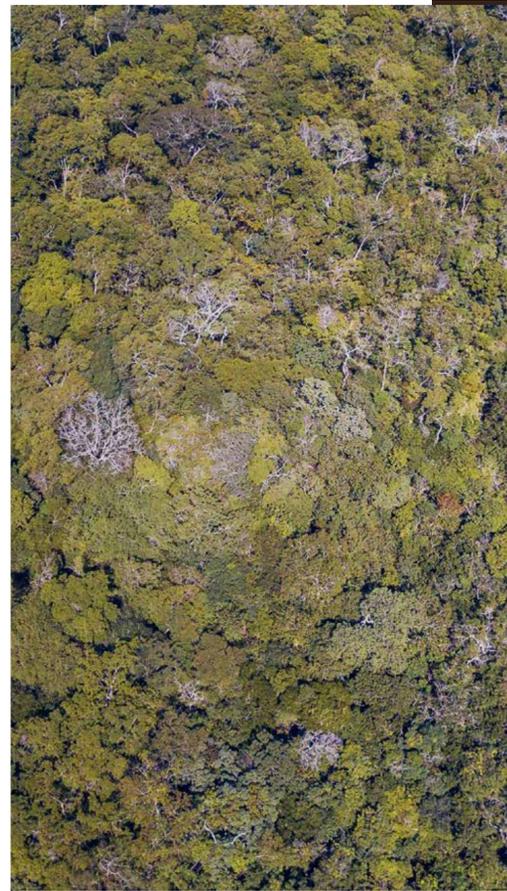




Technical reports:

Loss of natural cover (1986-2019) and future scenarios (2050) in the department of Santa Cruz

To read the document:



Technical reports:

Loss of natural cover (1986-2019) and future scenarios (2050) in protected areas in the department of Santa Cruz

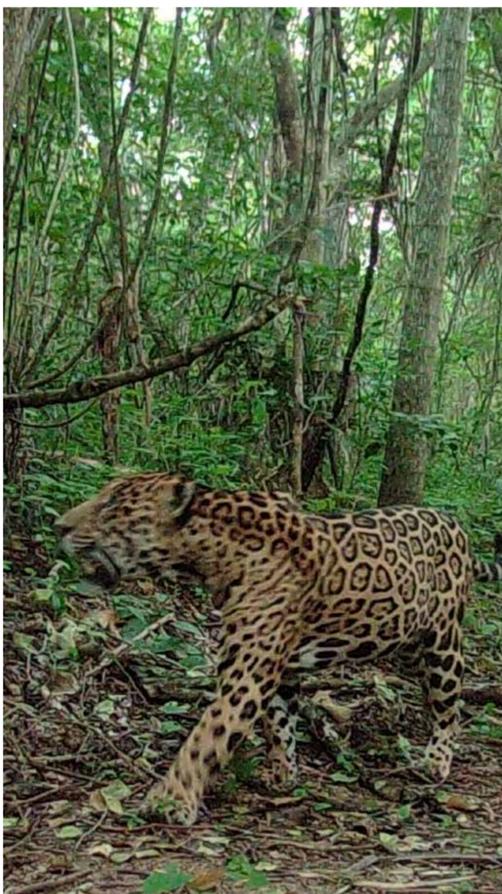
To read the document:



Technical reports:

Detection and quantification of 2020 forest fires: an analysis of the affectation in municipalities, Permanent Forest Production Lands (TPFP) and protected areas in the department of Santa Cruz, Bolivia

To read the document:



Scientific articles

Landscape integrity and habitat degradation risks of the jaguar (*Panthera onca*) in lowland cattle ranching areas of Santa Cruz, Bolivia

To read the document:



Relationship of Forest Cover Fragmentation and Drought with the Occurrence of Forest Fires in the Department of Santa Cruz, Bolivia

To read the document:



Short policy briefs

What to do about the loss of natural cover in the Department of Santa Cruz?

To read the document:



Loss of vegetation cover impacts on protected areas in the Department of Santa Cruz

To read the document:



Conservation of species and their habitats



Jaguar (*Panthera onca*)

The conservation of species goes hand in hand with the conservation of their natural habitats; no ecosystem would look the same without the living beings, tiny and big, that inhabit it; and no animal could subsist without its natural habitat. From the jaguar, the biggest feline in America, to the native melipona bees, they play an irreplaceable role in the Chiquitano Dry Forest and related biomes.

The territory of more than 24 million hectares in which the Chiquitano Dry Forest and its interrelated biomes extends, is a set of invaluable landscapes for the life of many species that are still being discovered. For this reason, recording new species and studying how they interact with the natural space in which they

live help to raise awareness about the importance of conservation directly.

In 2020, the FCBC contributed to this purpose with various types of wildlife records and new technologies for the conservation of natural habitats.

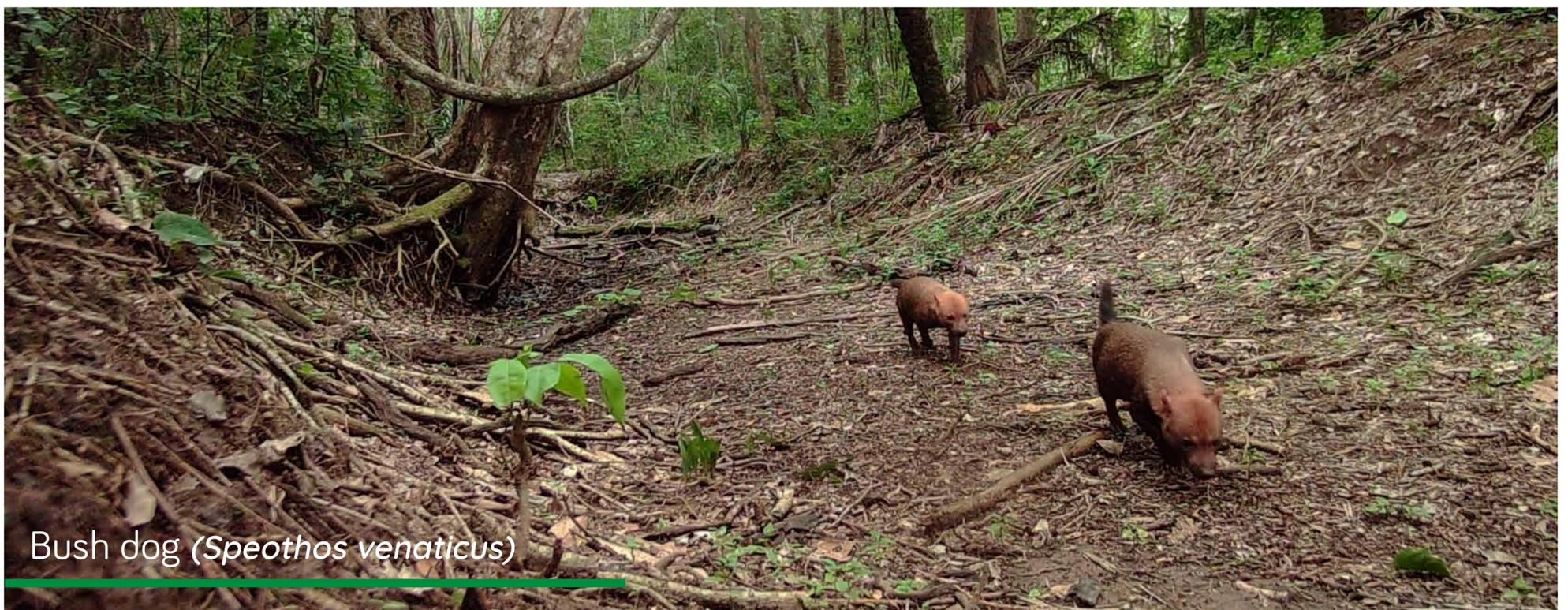


Capibaras (*Hydrochoerus hydrochaeris*)

Species register, a conservation way to conserve the life of the animal kingdom

Within the framework of the Tropical Dry Forest Studies Program (PEBST) of the FCBC and allies, the Alta Vista Tropical Dry Forest Studies Center (CEBST Alta Vista) has been working since 2018 on the consolidation of a mecha-

nism to record information from the property in a systematic and long-term manner. This mechanism, called the Information Record System (SRI), will allow cross-referencing information to understand aspects linked to changes in climate, to detect periods of drought, pulses in the dynamics of fauna, flowering and fruiting rhythms, effects of climate change on pollinators such as native bees, among others.



Bush dog (*Speothos venaticus*)



Tayra (*Eira barbara*)



Yaguarundi (*Puma yagouaroundi*)

The camera traps, placed in strategic locations, make it possible to see what the human eye does not see with the unaided eye, and to understand that some places that seemed to have no activity, in reality, act as a life cor-

ridor. In 2020, species such as the jaguar (*Panthera onca*), jaguarundi (*Puma yagouaroundi*) and bush dog (*Speothos venaticus*) were captured by the camera lenses.

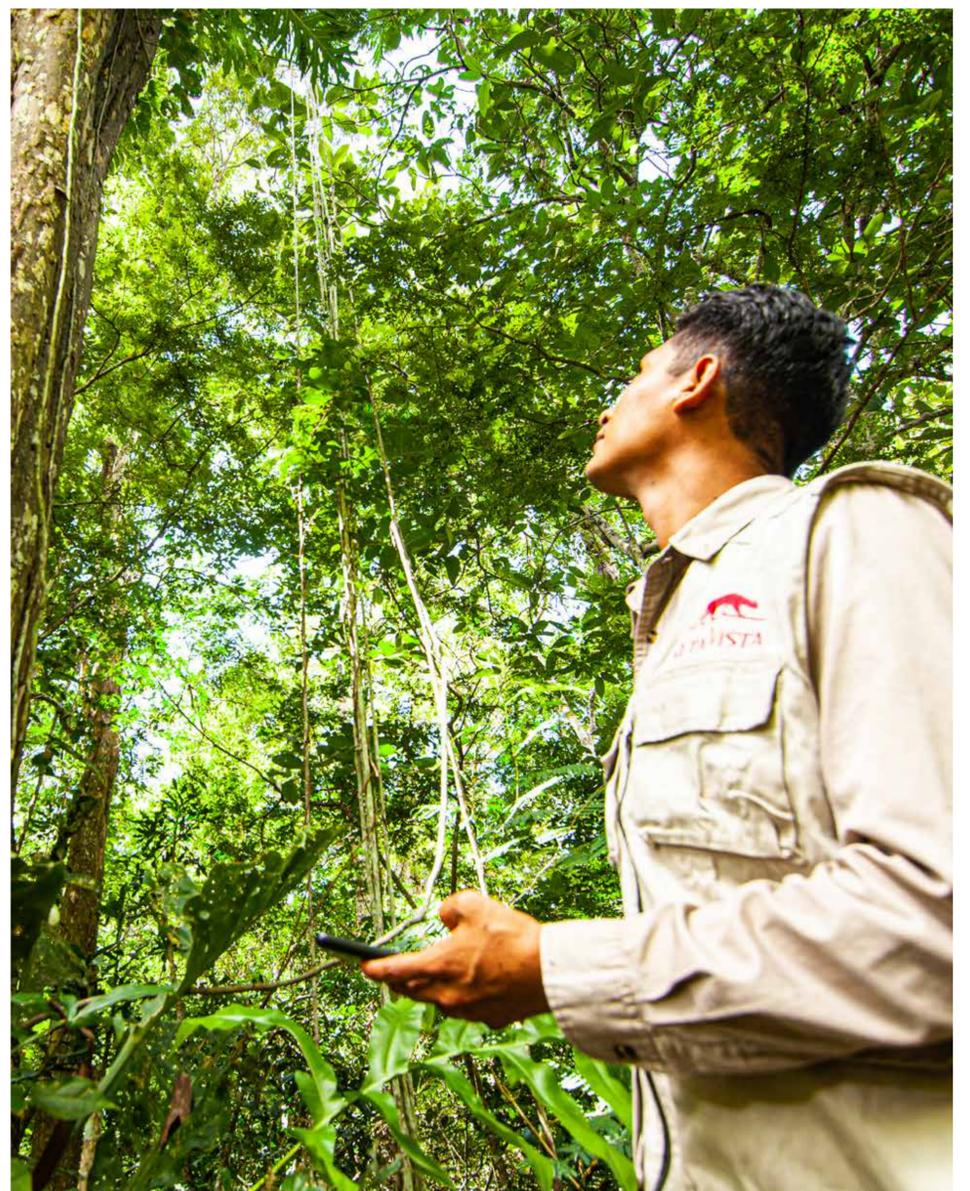
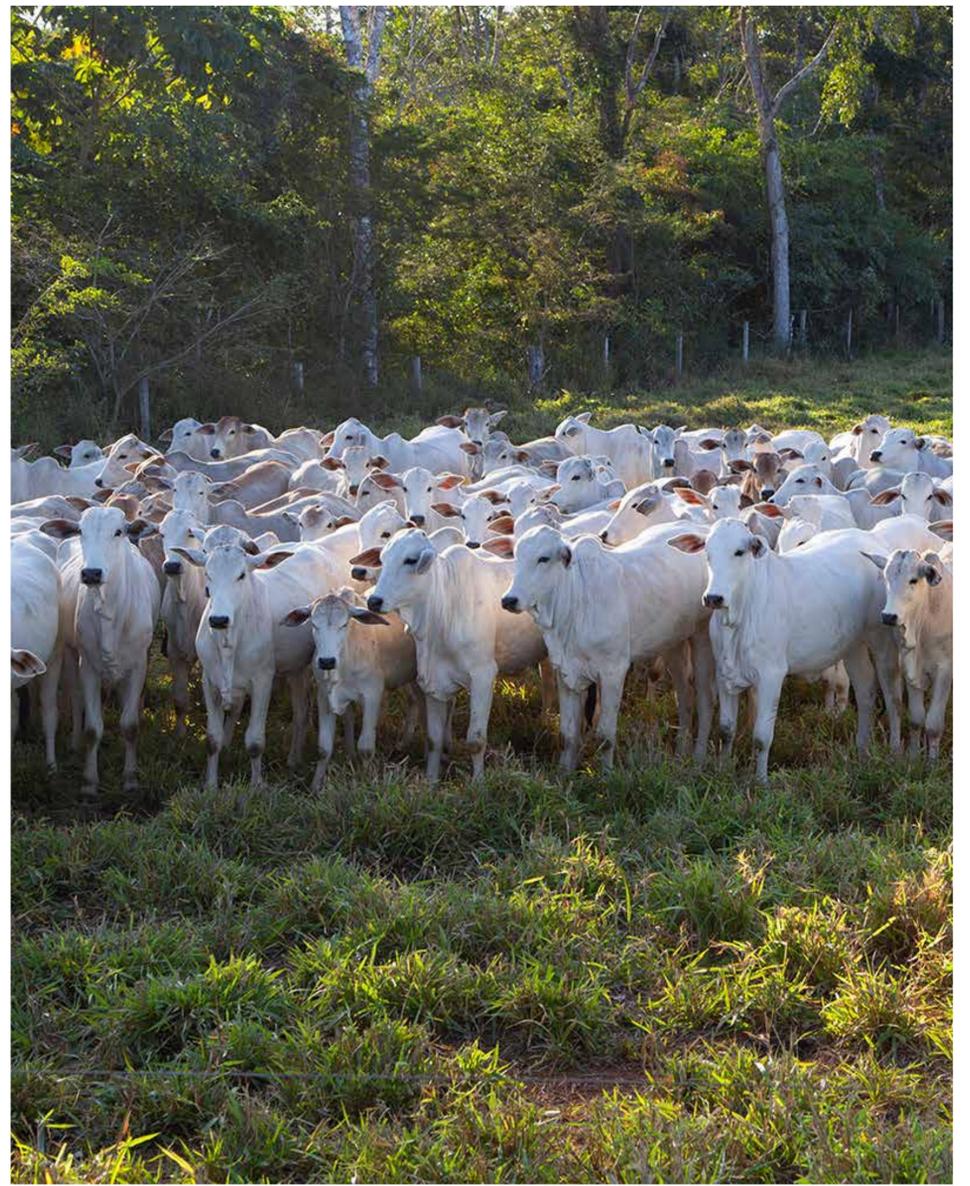
As part of the SRI, a trapping camera network was installed at CEBST Alta Vista, through which, in about a year, 29 species of mammals were recorded, of which 10 were carnivores, including 5 felines, such as the jaguar. This photo-trapping activity achieves three fundamental objectives: to record the existing fauna, understand their dynamics and observe how they react to different events that could affect their habitat or impact their lives, for example, fire events and their relationship with cattle production activities.



PEBST allies are: the Center for Research in Applied Biological Sciences and the Institute of Agricultural and Rural Sciences of the Autonomous University of the State of Mexico, the Noel Kempff Mercado Museum of Natural History, the Faculty of Agricultural Sciences of the Gabriel René Moreno Autonomous University, the Bolivian Catholic University, the National Service of Meteorology and Hydrology, Bombers de Cataluña, the Senckenberg Museum, the Agricultural Information System of the Government of Santa Cruz, and archaeologist Danilo Drakic.

Likewise, through the record of native bees, another component of the SRI, 236 nests were detected in both the forest and cattle ranching areas of the Alta Vista Center, and the preference of trees where they nest was also identified. All SRI records are systematized on a monthly basis and are published on the institutional web page (See them here).  Likewise, newsletters in which CEBST Alta Vista's activities and experiences are presented, are produced (See them here). 

On the other hand, in order to contribute to the bird inventories for the Chiquitano Dry Forest region, Diego Espinoza Aburdene, with the collaboration of Sixto Angulo, Oswaldo Maillard and Hermes Justiniano of the FCBC, made the bird guide of the Alta Vista Study Center. This inventory describes 150 species, which allows us to learn much more about the local avifauna of the region and contribute to the mission of conserving its rich biodiversity (Find it here). 



New technology for new conservation challenges

Technology is advancing and conservation has numerous ways to use this to its advantage. In 2020, within the framework of the “Drone Project”, supported by the Asociación Pajoso Sostenible, the Alta Vista Tropical Dry Forest Studies Program of the FCBC, in synergy with the Forestry Engineering program of the Gabriel René Moreno Autonomous University, began to experiment with the use of a drone for forest censuses; the relevance lies in the fact that this would be a pioneering experience in the use of this type of technology for such purposes in the country. Although this methodology is still being tested and studied, the incorporation of this type of technological tools could speed up and optimize the work of collecting information for forest censuses or inventories.

Another great institutional technological step to contribute to the conservation of the Chiquitano Dry Forest in 2020 was the development of the ECODATOS tool, which is a free access mobile tool, created with the support of the DAC project, and promoted by the Chiquitano Dry Forest Observatory, which allows the collection of information on flora, fauna, pressures and threats of the Chiquitano Dry Forest ecoregion, to improve local decision making.

ECODATOS is a way of applying citizen science, which means, that through local actor's well-timed observation, it's possible to prevent situations that harm the natural spaces and resources of the ecoregion.



SUSTAINABILITY



Wild products and food security



The use of wild products is a way to value and conserve the forest through its contribution to the livelihoods of local communities. To date, more than 100 species of edible wild fruits have been recorded in the Chiquitania, in addition to non-timber forest products that are used in ways other than for food, such as oils, soaps, ointments, etc. Sustainable use activities not only take care of the health of the forest and the people, but also allow the communities that live in the forest to have productive activities that generate income.

Besides the natural wealth that the communities of the ecoregion have at their disposal, families still have the tradition of growing their own food. In this sense, protecting their natural spaces

symbolizes taking care of their home, as well as their food security. After the recurrent fires and droughts of recent years, many Chiquitano families saw their production affected, which in many cases meant that family members left their communities in search of work.



Entrepreneurship of women and seed growers in Santo Corazón

In the Sunsás mountain range, on the border between the Chiquitano Forest and the Bolivian Pantanal, lies Santo Corazón, a Chiquitano community founded as a Jesuit mission, which is now part of the San Matías Integrated Management Natural Area. By being isolated from traffic routes and having a difficult access, Santo Corazón is a remote area, whose inhabitants are economically vulnerable.

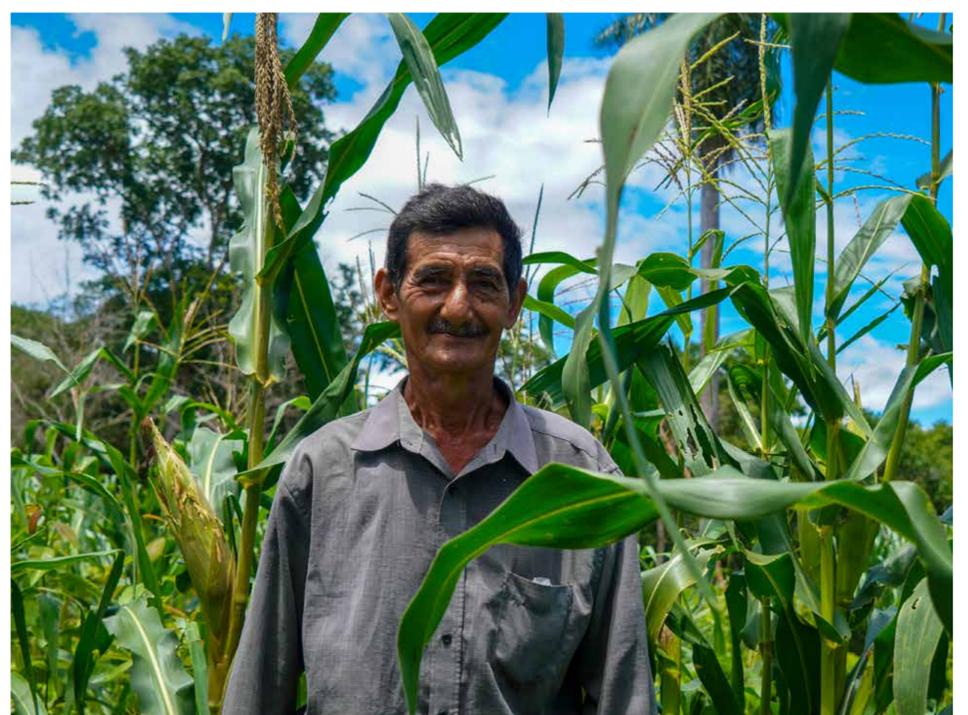
Following the crisis of droughts and fires in recent years, the region was affected severely. Through funding from the UNDP Small Grants Programme, FCBC was able to implement two projects aimed at increasing the resilience of the people living in the region.

The first project consists in the formation, training and equipment of a group of women to produce essential oils: the Santo Corazón Association of Women Producers. Through this initiative, 13 local women now have the infrastructure, technol-

ogy and skills needed to produce essential oils from native species of the area; they have experimented with Santa Cruz basil (*Ocimum* sp), lemongrass (*Cymbopogon citratus*), wild basil (*Hyptis suaveolens*) and soimaaca (*Lippia* sp), being this last one the most appreciated and in demand.

The products are sold in local and provincial markets, which represents an economic income for the women and their families. Likewise, so that the group can continue production during the dry season, the association has a plot of land for irrigated herb production, with a system fed by a neighboring river.

In this same community, the FCBC supported 5 agricultural producers for they can work in the production and conservation of traditional seed variety of corn, beans, cassava, sweet potato and butternut squash. To reduce their vulnerability to drought and guarantee the production of seeds, rainwater harvesting and drip irrigation systems were installed in each plot, and, they were also trained in agroecological pest management.



Diversification of family farms in the Velasco province

Due to the effects of fires and droughts in recent years, around 80% of the families in the communities of San Pablo, Candelaria de Noza, Santa Martha and Villa Cruz had given up producing food. This harsh reality represented a direct impact on family and community food security and sovereignty in the area.

Since 2020, through funding from the Junta de Andalucía through CODESPA Spain, FCBC has been working with 100 families in the 4 communities to recover their capacity to produce food after the fires and drought.

For this purpose, seeds of creole corn, rice, cassava, beans and pumpkin were obtained; technical assistance was provided for planting, two excavated tanks were built for irrigation and the community members were also trained in production topics. All the work carried out will be complemented with the breeding and management of native bees for self-consumption and the enrichment of family backyards with fruit tree seedlings; likewise, culinary and nutritional training will be provided to revalue recipes with native ingredients and stimulate better use of cultivated products and wild resources.



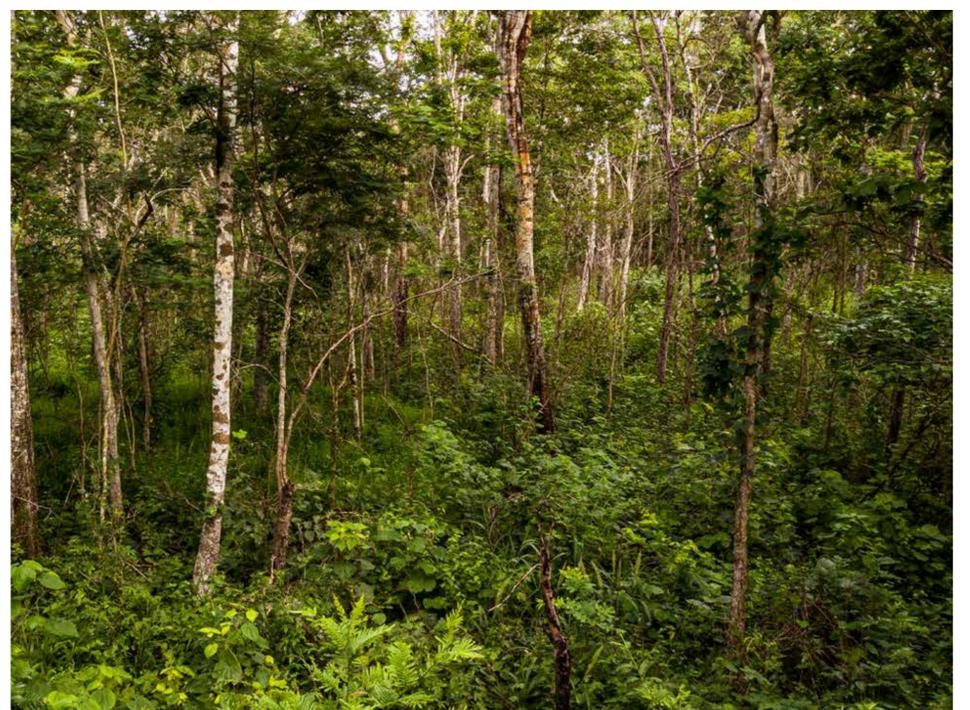
Sustainable agricultural production



The Chiquitano region concentrates 61.5% of the cattle at the departmental level, making it the main cattle-raising area in Santa Cruz. In this area, specifically in the municipality of Concepción, the Alta Vista Tropical Dry Forest Study Center, a research and experimentation center that seeks to reconcile conservation with productive activities, is located.

During the last ten years, this center has tried to develop a cattle ranching system that aims to be both efficient in its production and friendly to the surrounding forest. All this decade of experiences has provided a vast number of lessons learned; and in 2020, with the goal of serving as an alternative or reference in the decisions of cattle ranches in the Chiquitania, members of the technical team of this initiative, Hermes Justiniano, Huáscar Azurduy, Roger Coronado and Gerardo Macoño, presented the systematization of 10 relevant experiences and lessons learned from CEBST Alta Vista.

The registration and efficient use of pastures, proper rotation of cattle, diversification of pastures and legumes, management of water sources, forest refuges or corridors, shaded pastures, soil improvement and conservation, satellite monitoring of pastures, management of conflicts with carnivores and large toxic trees, and experiences with pollinators and coprophagous beetles in livestock environments, are the 10 topics presented in the systematizing document.



“ At Alta Vista we have learned that by making timely decisions in the distribution and spatial management of cattle as a preventive measure, we can substantially reduce attack events by felines such as jaguar and puma. Between 2018 and 2020 we reduced attacks from 4 (2018) to 2 (2019) and zero in 2020. ”

Fragment of the document “Livestock experiences in a Chiquitano pasture”

Find the document here.



The Alta Vista Tropical Dry Forest Study Center has established itself as a model of sustainable cattle ranching with emphasis on what is called regenerative ranching; this type of ranching is based on 5 known principles that are the basis for the survival, regeneration and growth of the microbiome of cultivated soils: avoiding disturbance of the physical structure of the soil organic layer with mechanical tillage tools; keeping soils always protected from direct sun and rain with stubble or cover crops; diversifying pastures with a mix of grass species, legumes and other forage plants; keeping the roots of plants from previous crops undisturbed as much as possible; and implementing an intensive grazing system through the Viosin system (PRV).

In 2020, several activities oriented at regenerative production were carried out in Alta Vista. On the one hand, progress was made with the diversification of forage plants in the pastures,

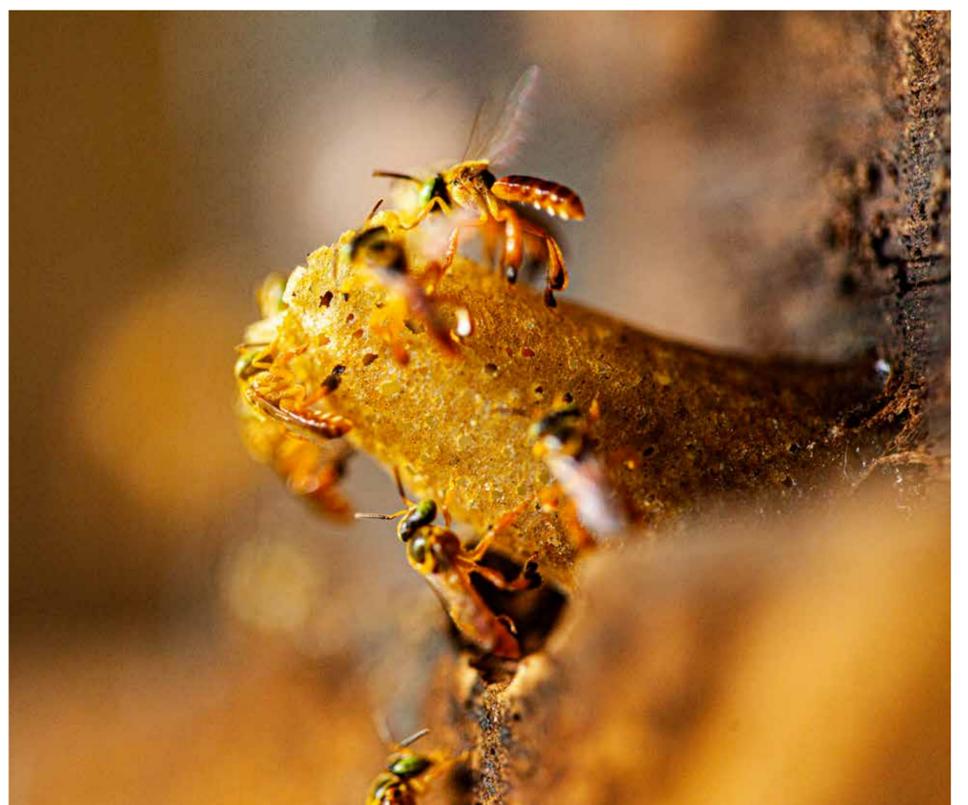
planting a combination of 5 leguminous plants among the grasses already established in 100 hectares of paddocks. On the other hand, to recover soil fertility, it was decided to plant Mucuna, a legume with high foliage generation and nitrogen fixation capacity, in a 7-hectare agricultural area for the production of forage for silage. Likewise, in order to intensify production and make better use of pastures, electric fences were installed on 160 hectares, which represents slightly more than half of the existing pastures. With the logic of having multipurpose agroforestry crops, 270 chiquitana almond seedlings were planted on 4.5 hectares of pastures and about 160 green cuchi plants were distributed along the electric fence dividers.

In addition, an average stocking rate of 2.3 animal units per hectare was achieved with 1,121 head of cattle; the common average livestock rate in the Chiquitano area is 1 to 1.5 animal



units, which shows that Alta Vista's good cattle raising practices allow increasing production without clearing an additional hectare of forest. Also, the results of the experimentation of crossbreeding (industrial crossbreeding) were measured, taking as a base the calves of 476 cows; having as a conclusion that the most promising crossbreeding is the Nelore with Senepol.

Finally, as part of the productive programs complementary to sustainable and regenerative cattle raising, a record production of 515 kg of honey from Apis bees was achieved in 12 months (March 2020 - March 2021); and the first harvest of honey from Melipona bees was carried out, with 4.4 kg.



Hydric management



Water is such a vital element in our daily lives that sometimes it escapes the mind that it is not always available or easily accessible to all people. Since 2019, rainfall levels decreased in the Chiquitano Dry Forest ecoregion, this reality lasted until 2020 because of the increased water deficit, an impact derived from global climate change. The dry months lasted longer and in combination with forest fires, the negative impact on water availability was felt across the region.

In 2020, FCBC, through the support of different organizations, implemented actions to improve water availability and management for 1,000 families belonging to 3 Chiquitano municipalities. In the municipality of San Miguel de Velasco, specifically, two actions were car-

ried out: the implementation of water harvesting systems and the repair of manual water pumps.

The first action, carried out under an agreement with Pajoso Sostenible Association, consisted on building gutters on the roofs of community houses or educational units connected to tanks that function to reserve rainwater and also to receive water distributed by the municipal cisterns in the dry months. Meanwhile, the repair and maintenance of manual water pumps was a coordinated work between the Migueleño municipal government, the FCBC technical team and the local inhabitants; this coordinated activity benefited 548 families from 11 communities in the municipality of San Miguel.

On the other hand, with the support of the “Early Response Laboratory” projects, supported by the UNDP, the Korean Embassy and the Foundation Puedes Creer of the Santa Cruz Mercantile Bank, rainwater harvesting systems were implemented and support was provided to improve water sources in the municipalities of San Ignacio and San Rafael de Velasco. Likewise, to improve the availability of water for local residents in the area, excavated tanks were built in two communities of San Rafael.



Ecotourism and natural resources



Ecotourism is an enjoyable way to show the value of the natural spaces and resources of a site; and also a means by which populations can generate income to improve their living conditions. Since 2019, the FCBC, with the support of CISU (Denmark) and in coordination with Earth Advocates Association (EAA), worked to project the municipality of San Ramón as an ecotourism area.



“ San Ramón is located 180 km on the Santa Cruz-Chiquitanía Norte-Guarayos/Beni highway, at the end of the Eastern Lowlands, and presents a different landscape that reflects the arrival of the Jesuit and Franciscan missions. ”

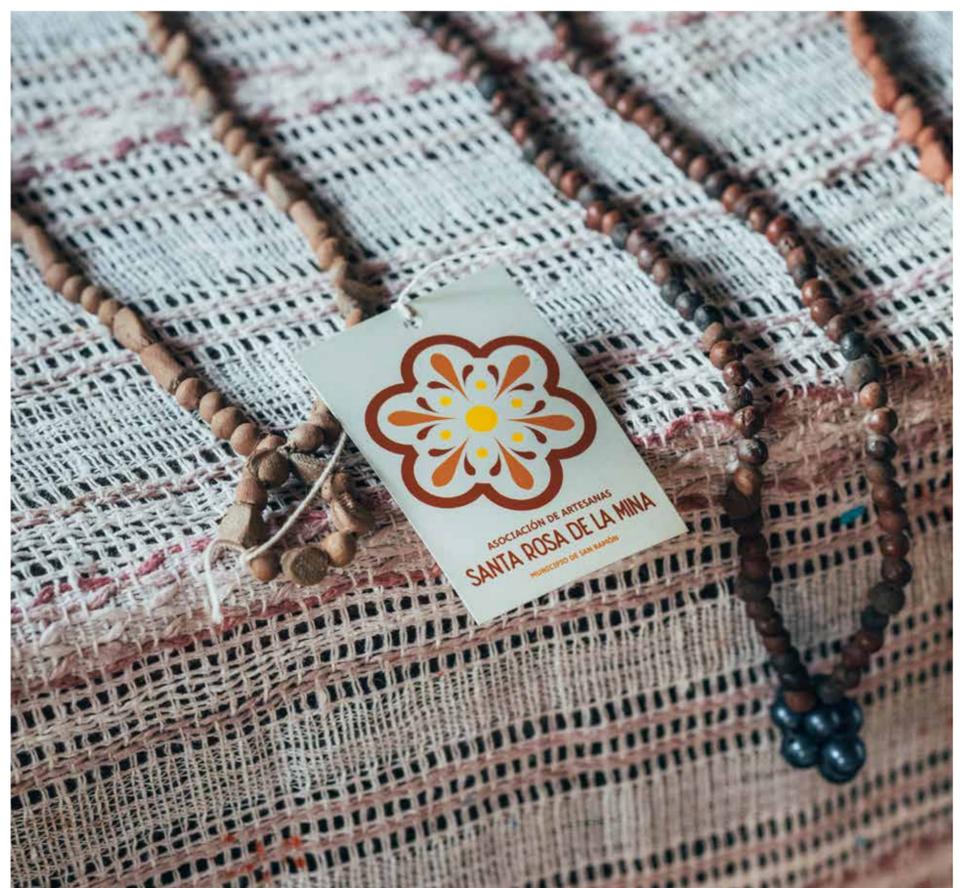


For this purpose, after an evaluation of 21 possible sites or potential activities for ecotourism, 5 sites and activities were prioritized to develop the first ecotourism circuit in the municipality. These priority sites and activities form the first ecotourism circuit that directly involves the ramoneña community of Santa Rosa de la Mina, an indigenous Chiquitana community, located 5 km from San Ramón, whose population still keeps its culture, history and missionary value alive through its customs and places.

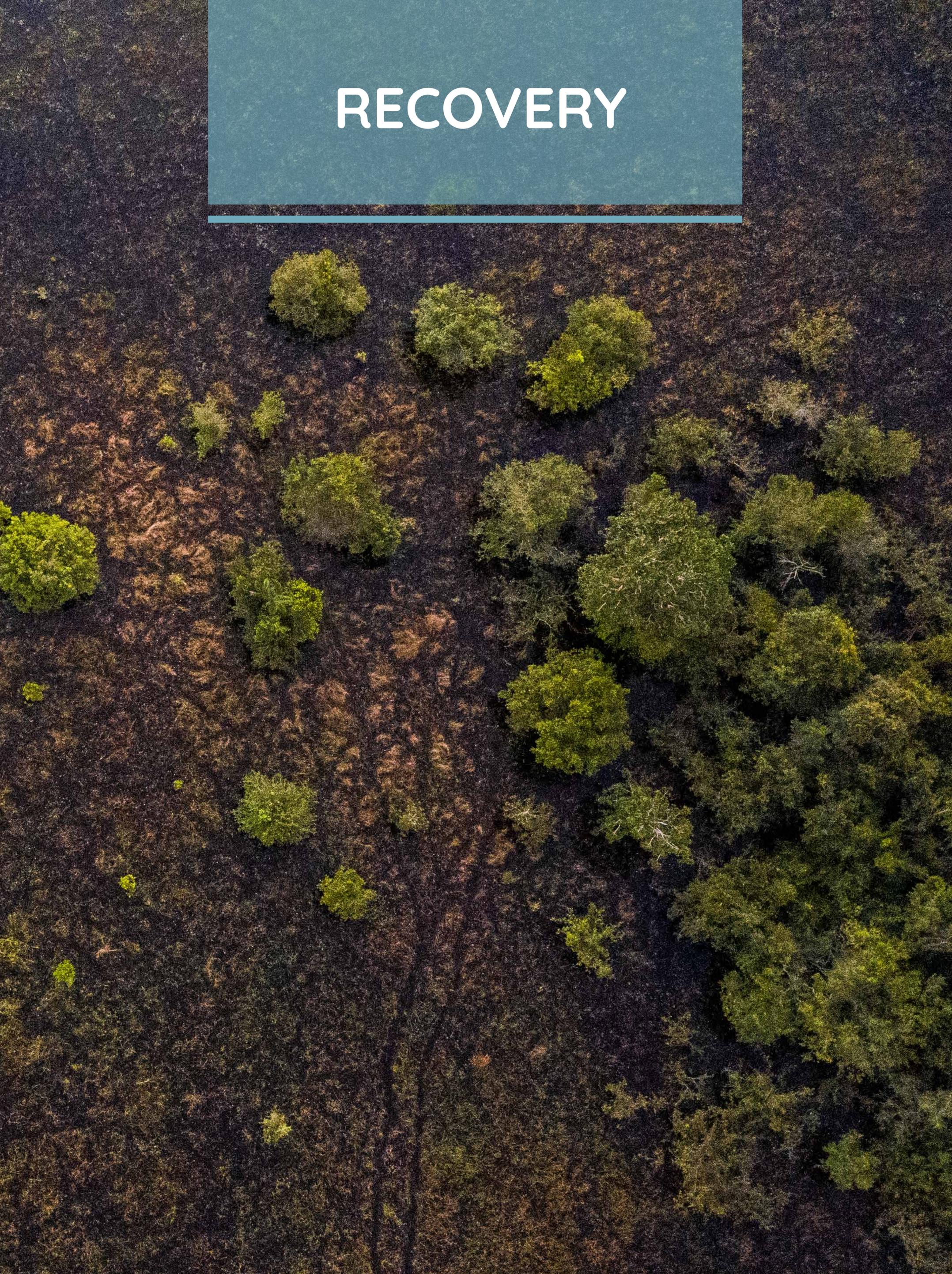
The circuit, which was officially delivered in 2020, starts at the Chiquitano-Amazonian tourist observation deck, then moves to the main square of Santa Rosa de la Mina, continues the journey to the missionary chapel of the community, then incorporates a bit of adventure with a walk along an ecotourism trail; to have a moment of rest and socialization after the walk, a house of the community which offers typical gastronomy of the place is visited and finally, a stop to see handicrafts, weavings with typical paintings and products made with wild fruits of the area, which are made by women artisans who are part of the Association of Artisans of Santa Rosa de la Mina, is made.

This circuit is an opportunity to showcase the tradition, culture and nature of a Chiquitano location and also represents a source of income that benefits more than 18 families directly and indirectly.

The women of the Association of Artisans of Santa Rosa de la Mina make products using local wild products as raw materials, for example, shampoo, necklaces and key chains made from isotoubo (*Sapindus saponaria* L.).



RECOVERY





After the devastating fires of 2019, which affected around 4 million hectares of the Chiquitano Dry Forest, the FCBC decided to incorporate the strategic axis of recovery with an integral approach to its work plan. The institution conceives that, in order to achieve a true recovery of the affected ecosystems, it is essential to ensure the protection of such areas; since, by being protected, the affected areas will have the opportunity to regenerate naturally.

Within this framework, in 2020 the FCBC contributed to this institutional pillar by providing technical support for the preparation of the Recovery Plan for areas affected by fires in the department of Santa Cruz and the Strategic Plan for the implementation of the Recovery Plan

for areas affected by fires in the department of Santa Cruz; it also joined the Interinstitutional Network for Ecological Restoration in Bolivia (RIREB).

The Recovery Plan for areas affected by fires in the department of Santa Cruz was developed in a coordinated manner by 8 ministries of the Government of the Plurinational State of Bolivia and the Departmental Autonomous Government of Santa Cruz. This plan aims to reestablish sustainable livelihoods through the recovery, restoration and regeneration of the areas affected by the fires, under a risk management, biodiversity and climate change approach; to this end, it has specific strategic objectives in the environmental, social, productive, cultural and tourism axis;



and also, in the cross component of risk management and governance.

On the other hand, the Strategic Plan for the implementation of the Recovery Plan for the areas affected by the fires in the department of Santa Cruz was a document prepared by the Autonomous Departmental Government of Santa Cruz, through the Secretariat of Sustainable Development and Environment, with the technical assistance of the FCBC and the financial support of UNDP. In the document, it was proposed to establish the spatial and operational framework for the implementation of intervention actions in key areas, where the integral restoration of affected ecosystems is promoted.

Finally, the RIREB, a network to which the institution adhered to, which is promoted by the

FuGar Project of the Bolivian Catholic University, is a technical platform formed by various organizations, academia and the public sector, which facilitates the articulation of technical efforts and promotes the generation of ecological restoration knowledge, for the dissemination of information and public policy advocacy.





In 2020, the motion for the global declaration of Tropical Dry Forests of South America as a conservation priority led by the FCBC and joined by ten other IUCN member organizations from Argentina, Bolivia, Brazil, Uruguay and the United States of America at the IUCN World Conservation Congress in Marseille was overwhelmingly approved.

Nearly all of the more than 600 members who participated in voting on motions at the World Conservation Congress said yes to the proposal to declare South America's tropical dry forests a conservation priority.

Read the motion here:



COMMUNICATION AND DISSEMINATION

Due to the pandemic, digital media was a key tool to continue communication and dissemination of the institution's activities, achievements and experiences. One of the biggest challenges in this area was to create timely and meaningful content in a digital reality that had a large volume of information.

Providing a clear, timely and context-sensitive message, based on truthfulness and social and environmental responsibility, was and still is a priority for the institution



More than 408 thousand people were reached by the publications on the institution's Facebook page.



30 appearances (mentions and interviews) in the mass media and specialized media on environmental issues.



More than 4 thousand views on the FCBC Youtube channel videos



Participation in **22 public events**, of which 9 were international and 13 national. In each of these events, the institution played a role, either as a guest, supporting or organizing institution.

WEBINAR

MEGAINCENDIOS EN LA CHIQUITANIA

Su significado en el escenario global

2 DE JULIO

10:00 A.M. Bolivia



FUNDACIÓN PARA LA CONSERVACIÓN
DEL BOSQUE CHIQUITANO



Proyecto Cofinanciado
por la Unión Europea



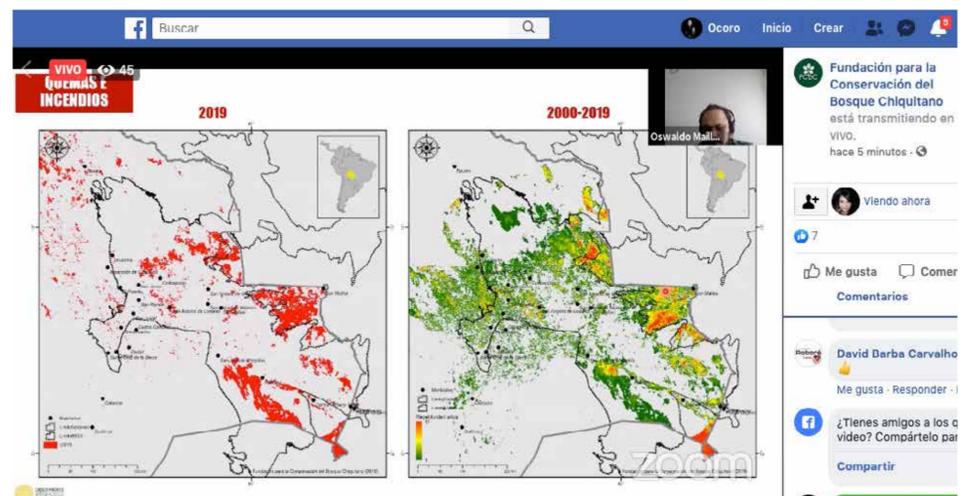
Public events:

Webinar “Mega fires in the Chiquitania: its meaning in the global scenario”.

The FCBC, in synergy with the ECCOS project, the Tropical Dry Forest Studies Program and the Chiquitano Dry Forest Observatory organized this event that took place on July 2, 2020 and was attended by 3 guests that talked about the fires that happened in 2019 in the Chiquitania.

A great highlight of the event is that it was announced that the mega-fires in the Chiquitania were the most severe recorded in the world so

far. The event was broadcast through the Zoom platform and was transmitted through the FCBC and ECCOS Facebook page; platforms with which it reached more than 11,800 people. Likewise, it is stored on the Youtube platform, where the videos related to the event have had a total of 811 views so far. (Watch it here)



Webinar: Deforestation and crisis in Latin America: Are we on time?”.

This event was organized by the Latin American Model Forest Network and supported by the FCBC, the Tropical Agricultural Research and Higher Education Center (CATIE), the Technological University of Pereira (UTP) and Risaralda Model Forest. Ten experts in sustainable development from different countries and regions of Latin America participated in the event, analyzing, debating and identifying the dynamics of deforestation and possible scenarios as a result of the environmental and health crisis.

The audience of this event reached over 700 participants and 3,207 views on Youtube. (Watch it here) 

Sustainable Productive Landscapes Regional Dialogue

Through ECCOS, a cross-border project led by the FCBC, support was provided for the organization of this event, which was organized by the Departmental Autonomous Government of Santa Cruz, the Government of Tucumán and B4Life. This event was a three-day intersectoral dialogue space (October 19, 21, 23), which aimed to identify strategic ideas to advance towards sustainable development in the Paraguay River region.

There were more than 30,400 views in the virtual events in which the FCBC participated.



CONFERENCISTAS

ALAN BOJANIC

FAO. Representante en Colombia. Bolivia - Colombia
Deforestación en la Amazonia

ROSA LENY CUELLAR

FCBC. Coordinadora General ECCOS-UE. Bolivia
Deforestación e incendios en la Chiquitania de Bolivia

RENÉ ZAMORA

WRI. Experto Economía Forestal. Guatemala - USA
Motores económicos de la deforestación en Latinoamérica ante la crisis

NATALIA RUIZ

Varias instituciones. Consultora Forestal. Perú
Dimensiones humanas de la deforestación en Perú

RICHARD VERVISKY

Servicio Forestal de Canadá. Presidente RIBM. Canadá
Lucha contra los incendios forestales y el apoyo de la cooperación internacional de Canadá

INTY ARCOS

Bosque Modelo Chocó Andino. Coordinador técnico
Mancomunidad. Ecuador
La deforestación, pandemia y otros demonios

ELIANE CECOM

Universidad Nacional Autónoma de México. Investigadora.
Brasil - México
Cómo revertir la deforestación. Modelos exitosos en Brasil

FRANCISCO URIBE

Universidad Tecnológica de Pereira. Jefe de Planeación de UTP.
Colombia
Dificultades y retos para una gestión ambiental orientada a la disminución y control de la deforestación

TARYN SÁNCHEZ

CONAFOR. Encargada de asuntos internacionales - México
Perspectivas de la deforestación en México

FERNANDO CARRERA

CATIE. Gerente de la RLBM. Perú - Costa Rica
Manejo forestal como estrategia para frenar la deforestación. Caso Guatemala



Press registration and virtual events

Bolivia: decretan estado de emergencia por incendios forestales que amenazan áreas protegidas



por Yvette Sierra Praeli en 17 septiembre 2020



- El Observatorio del Bosque Chiquitano señala que son 187 focos de calor y quemas activas en áreas naturales protegidas de Santa Cruz,

La Región

Proyectan que para 2046 el hogar del jaguar se reducirá de 26,3 a 13,7 millones de hectáreas

Un estudio revela que la deforestación y la fragmentación del hábitat son las principales amenazas para el felino en Santa Cruz. Entre los años 2001 y 2019, el fuego afectó el 42 % de las zonas que habitan estos carnívoros.



Foto: Cámara trampa de Alta Vista / FCBC

En 30 años, Santa Cruz puede perder 12 millones de hectáreas de cobertura boscosa

De ese total, cinco millones correspondrían a áreas protegidas. La proyección surge de dos informes que analizan el ritmo de la deforestación, desde 1986 hasta 2019

Silvana Viviani

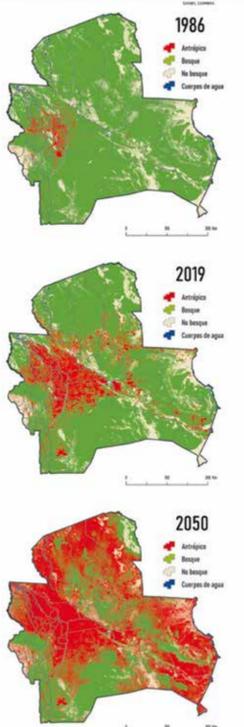
Los que se ven afectados por el avance de la deforestación, en su mayoría, son las áreas protegidas. En 1986, el Observatorio del Bosque Chiquitano (OBC) reportó que existían 187 focos de calor y quemas activas en áreas naturales protegidas de Santa Cruz. El primer estudio abarcó la pérdida de cobertura boscosa en el departamento de Santa Cruz, y el segundo aborda específicamente en los datos de las áreas protegidas (AP).

Los científicos de los dos informes dicen que si continúan las tendencias actuales de deforestación, en 30 años Santa Cruz perderá 12 millones de hectáreas de cobertura boscosa, de las cuales cinco millones se encontrarán en áreas protegidas. Dicho de otra manera, el departamento puede perder reservas biológicas que son una extensión equivalente a un departamento como Cochabamba.

Los científicos dicen que el ritmo de deforestación se aceleró en los últimos años, pero que si se toman medidas de conservación, se puede reducir el ritmo de pérdida de áreas protegidas.

El informe de la Fundación para la Conservación del Bosque Chiquitano (FCBC) indica que en 2019, se registró un aumento de 187 focos de calor y quemas activas en áreas protegidas de Santa Cruz, lo que representa un 42% del total de focos de calor y quemas activas en el departamento.

Los científicos dicen que si se toman medidas de conservación, se puede reducir el ritmo de pérdida de áreas protegidas.



Los incendios son también responsables de la pérdida de flora y fauna, aunque el informe solo aborda la deforestación por elementos

Silvana Viviani

Los científicos dicen que si se toman medidas de conservación, se puede reducir el ritmo de pérdida de áreas protegidas.

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INCENDIOS FORESTALES Y BIODIVERSIDAD SU IMPACTO CONTADO DESDE LOS ACTORES EN 1ERA LINEA.

MIERCOLES 4 DE NOVIEMBRE 9:30 A.M.

OSWALDO MAILLARD
Biólogo conservacionista con experiencia en análisis espacial, modelación de cambios de cobertura del suelo y riesgos ambientales en ecosistemas terrestres.

MAURICIO PEÑARANDA DEL CARPIO
Biólogo dedicado a la conservación y monitoreo de mamíferos, principalmente carnívoros. Experiencia en monitoreo de especies en peligro de extinción específicamente Uso Andino en áreas protegidas como el Inao y ANMI EL PALMAR.

PEDRO PABLO RIVERA MEJIA
Formado como bombero forestal en 2007. Realizo cursos especializados en Incendios forestales en Brasil y EEUU. Desde el presente año trabajo para la ONG Fundación Amigos de la Naturaleza (FAN). Como Sugerente de Monitoreo de incendios forestales y Manejo del Fuego.

PAR Prevenir Apoiar Recuperar Cenários para o extrativismo na Chiquitania em contexto de pandemia e mudanças climáticas

Diego Javier Coimbra
Responsável pelo programa Valorização Socioeconômica da FCBC

35 ANOS LIDEMA LIGA LA DEFENSA AL MEDIO AMBIENTE KONRAD ADENAUER STIFTUNG Oficina Bolivia

Presentación de la Revista Hábitat No. 90

MARTES 24 NOVIEMBRE 15:00 h

- Oswaldo Maillard: Los bosques de Bolivia y sus funciones ambientales
- Vincent A. Vos: Como la Biotecnología amenaza la Biodiversidad en Bolivia
- Miguel Ángel Crespo: Efectos de los OGM en la Economía y Seguridad Alimentaria Nutricional
- Carolina Sandi Champi: Economía Circular

iCupos limitados!

Webinar Miércoles 12 de agosto 2020 10:30 (Hora Bolivia)

Financiamiento Climático para los Bosques y Agua Experiencias de éxito

Fotografía: Simon Opladen / HELVETAS Swiss Intercooperation

Avina Fundación HELVETAS BOLIVIA FCBC EDR

A PRIMERA HORA - ¿Qué impacto tuvo el incendio del año pasado en el bosque seco chiquitano y que implicará... Grabado en vivo

7:05:52 Rosa Leny Cuéllar- Directora Técnica de la FCBC ¿El bosque seco chiquitano recupera del incendio?



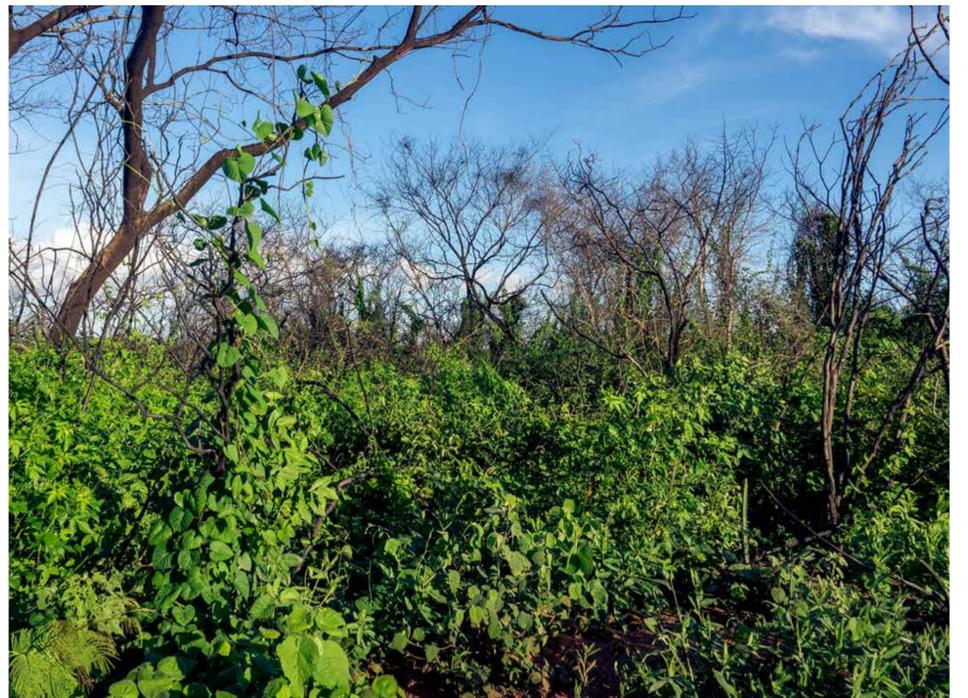
INSTITUTIONAL MANAGEMENT

Proposal design

The 2020 management was very active in fundraising activities, strengthening relationships, consolidating alliances and designing projects for various funding channels, with a total of 22 proposals submitted, from which 11 were approved.

As a result of these proposal design and submission processes, a lot of lessons stand out, the major of them is the value of alliances at every level; in 2020, the FCBC channeled the efforts of companies and local civil society groups, as well as managed funding from international cooperation. The role of civil society organizations from other countries that act as allies and co-executors to specific funding entities it is also highlighted.

At the end of the year, as a result of the permanent activity in the Latin American Model Forest Network and the prestige of technical solvency that the FCBC sustains in this platform, the institution was selected for direct funding from the Ministry of Natural Resources of Canada (NRCan) for the restoration of the Chiquitano Forest.



Alliances

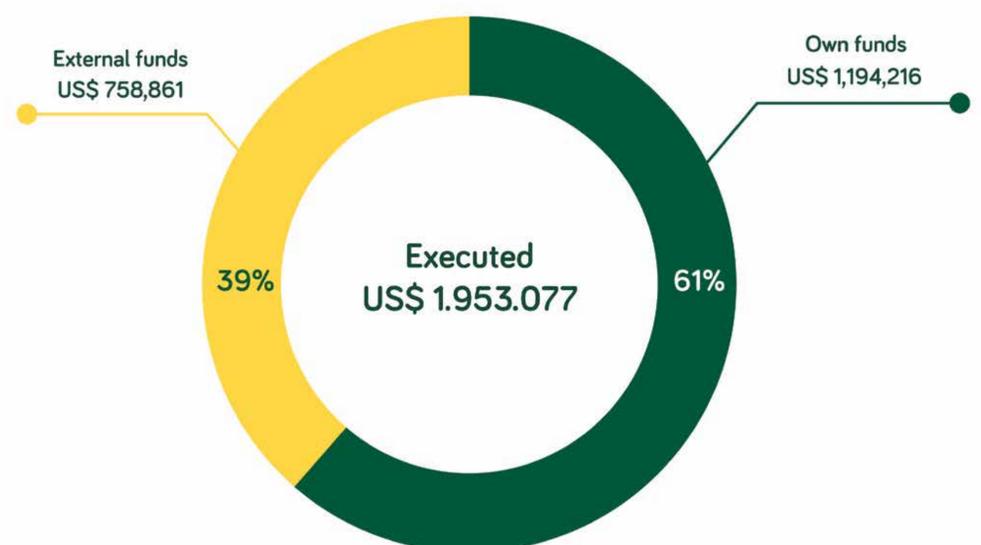
The strengthening of strategic alliances is an ongoing task at the FCBC, both for the execution of projects as for initiatives that contribute to the institutional mission. During 2020, 88 agreements with allies and beneficiaries remained in force between framework and specific agreements, as well as internships and research agreements.

At the international level, agreements with external funders were maintained: the European Union, Earth Advocates Association - EAA Denmark, Natural Resources Canada, the Junta de Andalucía - CODESPA, the Civil Service

for Peace - German Cooperation GIZ, CARITAS Bolivia, DAC Solidar Switzerland, the Sustainable Pajoso Association and the United Nations Development Program. At the departmental level, agreements were reached with the Departmental Autonomous Government of Santa Cruz and the University Autonomous Gabriel René Moreno. At the municipal and local level, agreements were reached with most of the Autonomous Municipal Governments of the Chiquitania, as well as with peasant and indigenous communities, community enterprises, rural producers and others.

Financial management

In 2020, the FCBC executed a total budget of US\$ 1,953,077, of which 61% came from the institution's own funds and the remaining 39% from multiple external financing, especially from the European Union, the United Nations Development Program, GIZ of Germany, Junta de Andalucía (Spain), among others.



OUR TEAM



The human resource of an institution is, ultimately, the intangible treasure, engine and soul of the institution. During the 2020 administration, the FCBC had a team of 58 people (20 women and 38 men), distributed in different work areas and locations in the department of Santa Cruz.



Executive Direction: Roberto Vides-Almonacid,

Executive Management Support Team: Institutional Coordination: Jenny Flores Osinaga
Legal Advisory: Arlet Escalera Guizada
Assistant: Graciela Cuellar Mayser

Technical Team: Rosa Leny Cuellar de Mojica, Hermes Justiniano Suárez, Javier Coimbra Molina, Ruth Anivarro Guzmán, Sixto Angulo Alpire, Romy Cronenbold Zankiz, Huascar Azurduy Ferreira, Reinaldo Flores Cuellar, Rossy Montaña Flores, Oswaldo Maillard Zallio, Roger Coronado Aldana, Marcio Flores Valencia, Ana Paola Cuellar Añez, Marco Antonio Limarino, Édgar Viveros Burgoa.

Administrative Team: Leticia Faldin Peña, Anahy Frías Salas, Gina Fabiola Taboada Añez, Junior Ortiz Moreno, Dalciz Moreno Santos, Johnny Gómez Bustillos, Alfredo Cruz Sagredo.

Communication Team: Daniel Coimbra Fernández, Aimara Barrero Chávez, Carla Pinto Herrera.

CEBST Alta Vista Team: Gerardo Macoño Soriocó, Noelia Peña Zegarra, Osvaldo Cunay Claros, Elías Robles Aguilera, Francisco Cuasace Supepi, José Pedro Robles Aguilera, Jose Seoane Chacon, Angel Tomicha Supepi, Pedro Supepi Cuasase, Willans Donal Roman Soriocó, Javier Antonio Román Justiniano, Carlos Gabriel Garcia Zeballo, Isabel Añez Aguilera, Donald Viera Tomicha, Florencio Mendoza Padilla

Local Technical Links: Tito Arana Alvis (Velasco), Arleen Taceó Frías (Chiquitos), Ximena Paz Soliz (Ñufto de Chávez)

Technicians in other institutions and Environmental Promoters: Patricia Rojas Chávez, Evaristo Juan Cambara Masai, Folker Enrique Taceó Frías, Pedro Edwin Languidey Silva, Edgardo Kevin Heredia Mercado, Juan Francisco Roca Aviana

ACOVID-19 Medical Support: Olga Joana Pictor Roca

Cooperants: Elisabeth Giesel, Nicolas Julián Mielich
Both from the Civil Service for Peace of GIZ

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Daniel Coimbra
Javier Coimbra
Reinaldo Flores
Marton Hardy
Carla Pinto Herrera
Hermes Justiniano

Designer:
Aimara Barrero

Text editing:
Carla Pinto Herrera





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