



ANNUAL REPORT 2022

This is the report corresponding to the period from January to December 2022, addressed to Tu Tierra, Bioparc and to those interested in the conservation and sustainable development projects of two Private Conservation Areas (PCA) such as the Chaparrí PCA owned by the Comunidad Campesina Muchik Santa Catalina de Chongoyape (34,412 ha.) and the PCA La Huerta del Chaparrí (La Huerta Encantada) owned by the Plenge Pardo family (100 ha.), who through an agreement work together as they are adjacent conservation areas with common conservation objectives. For marketing reasons, this group has been called the Chaparrí Ecological Reserve.

Likewise, both private conservation areas assume that they are part of a natural Biological Corridor between Lambayeque, Cajamarca and Piura, Cajamarca and Piura and establish alliances with Associations such as Acoturch, Tu Tierra, Bioparc, Rondas and Peasant Communities with whom the Bi-regional Strategic Plan 2010-2020 "The Conservation of Natural Resources and the Development of Sustainable Economic Activities" was elaborated, which summarises the working philosophy of the actors...

THE FOREST

The predominant equatorial dry forest in the two private conservation areas shows steady regeneration in the areas that occurred before their qualification as PCAs.

In the Chaparrí PCA, we estimate that 50% of the degraded areas are being recovered and 50% of the areas are primary forest.

In La Huerta del Chaparrí CPA, we estimate that 30% of the forests that were degraded are being recovered through care and reforestation. The remaining 70% is primary forest.



We are currently concerned because we are in a situation of prolonged drought (sixth consecutive year) since rainfall has not exceeded 300 mm per year (except in 2020 when there was a single shower that greatly affected the road infrastructure), which causes significant water stress that has a dramatic impact on the flowering and regeneration of the forest.

CONSERVATION PROJECT AND BEAR RESCUE

There are currently 6 Spectacled bears in the bear rescue center.

Rescued bears

This semi-captive bear breeding facility is a powerful tool for research and environmental education and we continue to act on the basis of the Master Plan for the establishment of the Chaparrí ACP that was approved by INRENA in 2005. However, as we have already stated, in the new division and nomenclature of institutions such as SERNANP and SERFOR they demand that we should "formalise" a Rescue Centre in the ACP La Huerta del Chaparrí. In 2019 we made the consultations and we see a great economic inconvenience since, this new "formalization" would imply an extra monthly expense of approximately S/. 3,000 (Three thousand soles) to cover the fees of a professional authorized by SERFOR who should attend monthly to the supposed Rescue Centre in order to verify that the requirements stipulated by them are fulfilled. This demand seems to us to be exaggerated and economically unfeasible, as there are no economic resources for such an eventuality. On the other hand, we know that several rescue centres in the country have been forced to close due to the excessive requirements demanded by SERFOR and OSINFOR and due to the crisis caused by the global pandemic of Covid 19.

Our bears:

- **TONGO**, in excellent condition, has been moved to the first enclosure of the old pens.
- **AMAZONA** is with her daughter Chaska, mated with Tongo in 2021, did not give birth
- **LOLA**, daughter of Collique is developing normally, very intelligent and curious.
 - o 2021: 1 time and recovered the same day, mating in October with TONGO who did not give any pups
- **CHASKA** is the daughter of Amazona with a wild bear.
- **COLLIQUE**, the problem of alopecia still persists, but her state of health does not look alarming.
- **AZULINA**, similarly in good general condition, but with the problem of alopecia.



As a result of the damage to the electric fences, caused by the deterioration of time and the onslaught of wild bears that entered the enclosures in search of females in heat, we continue to move forward in a modular fashion with the general repair of these facilities, which mainly involves checking and replacing the wooden posts that support the electric lines, many of which have a rotten base after 20 years of use.

This mainly involves checking and replacing the wooden poles that support the power lines, many of which have rotten bases after 20 years of use.

Intensive maintenance is also being carried out on the caves and, as we do every year, for safety reasons, we are replacing the batteries to ensure the supply of electricity needed by the site.

In February 2022, Pierre and Francois Gay brought us a new energiser and a new voltage meter.

In the Chaparri Master Plan, accepted by INRENA, the competent authority in the year 2000 (before the existence of SERNANP and SERFOR), it was stated that one of the actions that we would carry out would be the release of some rescued bears.

This has been carried out in spite of the criticism of some detractors who argued, among other reasons, issues such as:

- Genetics of specimens that did not correspond to the dry forest.
- Transmission of diseases.
- Released bears that could cause problems for livestock, crops and incursions on farmers' properties.

Through a system of social and ecological monitoring that we have implemented, including news and the use of camera traps, we have verified that during these 20 years we have not registered any of the problems or risks mentioned above.

Wild Spectacled bears

Monitoring with the camera traps donated by Bioparc and South Lakes continues with excellent results. We currently have 15 cameras in operation. We need to look at the possibility of acquiring 5 more cameras.

In 2022, our park rangers have continued to monitor wild bears, obtaining 2,110 videos and 1,299 photographs, some of which are presented in this report.



Between September 2021 and January 2022, a wild male bear that we baptized as Piloto was frequenting areas around the enclosures, plantations and Ecolodge. In an unprecedented event he entered the cabin of our vehicle, fortunately without causing any damage to property or people.

By monitoring the population of bears and other wildlife, which is being carried out from 1998 to 2020 (22 years), we can preliminarily establish that the Chaparri ACP plus the ACP La Huerta del Chaparri and neighbouring rural communities such as Santa Lucia de Ferreñafe, Tocmoche, Yaque, San Juan de Licupis, Miracosta, Laquipampa and others, are home to the densest population of Andean bears in South America. It is therefore of utmost importance to strengthen these institutions in order to insist on the creation of a conservation corridor to ensure the viability of this endangered species.

In December 2022 the remains of a wild bear were found about 800 metres above the enclosures. Due to the heavily worn teeth, they believe it was an old male that did not survive the extreme drought.



Condors

In the aviaries built for the condors, we are currently keeping Iñiku, the female Andean condor who is about to turn 15 years old and this year 2022 has completely changed the cage's mesh. Wild condors (*Vultur gryphus* and *Sarcoramphus papa*) are still observed in the vicinity of Iñiku's environment. SERFOR, as the forestry authority, recently published the results of the first condor census that was carried out at a national level, with the alarming news that there are only just over 300 individuals in Peru.

The Tu Tierra team had estimated more than 15 years ago that the total condor population in Peru did not exceed 500 individuals, so there was an urgent need for a strategic plan and action plan to reverse this situation. Unfortunately, this was not done in time and we see from the census that the population continues to decline dramatically.

In Chaparri we could contribute to the conservation of the species by providing an additional diet of carcasses. We also built a shelter to observe and photograph the condors with the help of Forest Galante from Animal Planet.



Camelids

In 2012, with the help of Bioparc, a herd of llamas was acquired from the Pachacutec Cooperative and private individuals located in the Junín region (Central Andes of Peru).

These llamas were located near the Tinajones Reservoir, next to the previous herd.

In 2022, we built a new corral adjacent to the Valentin Sanchez ranger station, which is also used to collect manure for reforestation and fertiliser. Additional work was also carried out to bring water to the refuge: PVC pipes, and 2 km of tanks.



White-winged guan

The 2022 monitoring of the population tell us that the population is about 57 individuals. The population decrease (85 in 2021) could be related to water stress (lack of rainfall), and could have caused the population to disperse to higher altitudes.



Herpetarium

The Herpetarium continues to be a very popular place to visit, especially for children, and in the bioterium we have managed by crossbreeding to obtain a colour that more closely resembles the colour of the wild mice that serve as food for the snakes, lizards and other animals that we keep on display.

In July 2021, during the visit of a TV crew from Animal Planet, a small snake was collected. Animal Planet TV crew collected a small snake which is being investigated by Juan Andres Plenge, and the first indications are that it will be a new species for science.



Peccaries and other species

- The population of peccaries (*Pecari tajacu*) around the lodge is estimated at more than 50 individuals that now move long distances and have subdivided into groups of 10 to 15 individuals.
- The population of white-naped squirrel (*Sciurus stramineus*) has increased significantly in 2021 and it is very common to observe them throughout the day.
- In 2019, groups of Tayras (*Eyra barbara*), possibly attracted by the squirrel population, are still present. Deer, foxes, pumas, tamandua, and royal condors have also been observed more frequently,
- Most notable increase in 2022: white-tailed deer (*Odocoileus virginianus*), pumas have even chased deer near the Tu Tierra facility.
- Frogs: in a wetland area near the nursery, a waterfall was built with the idea of increasing the frog population



MELIPONA BEES AND CONSERVATION CORRIDORS

In 2021, a promising project of melipona beekeepers (stingless bees) was launched, which presents itself as an excellent socio-economic and environmental option to take over the conservation corridors project, encouraging different sectors of the Comunidad Campesina Muchik Santa Catalina and other neighbouring rural communities.

The first 13 meliponarios have been installed (5 in Chaparri and 8 in Tocmoche) and are already seeing and increasing the size of the breeding colonies.

The main concept is: "Without forest, there are no bees; and without bees, there is no forest".

We have also purchased materials to build 10 additional meliponarios that are already being considered as part of the new conservation corridor strategy among the communities that are voluntarily involved in Chaparri, Tocmoche, Yaque, Miracosta and San Juan de Licupis.

We made trips to Juanjuí (Community of Pizarro), Moyobamba and Jaen to acquire about 80 beehives of different species, mainly Ramichis and Eburneas, in order to experience their development in the dry forest.

We also made a trip to Querecoto/Cajamarca to acquire seedlings for reforestation and a hive of a new Eburnea species.

Two training workshops were held with neighbouring communities for the management of meliponas. A workshop was held with environmentalists in Chaparri. We made 3 supervision trips to Tocmoche.



We gave a hive of Ramichis to Querecoto, one to the president of the Community of Chaparri Edivar Carrasco, one to Mrs. Mirtha Barreto and 2 others to Evaristo Fernandez of Tocmoche.

100 mini hives or bee boxes are being made.

Note: Not all the bees are in optimal conditions and we have had a lot of mortality due to lack of rain and flowering. Currently our advisor Ricardo Rabanal is experimenting with a food supplement to help maintain the hives and we hope that in February we can count on good rains to help the forest regenerate. It is also important to note that we are doing our best to set up irrigation modules.



Tourism in Chaparri

In 2021 and 2022, tourism in Chaparri and in Peru has started to be partially reactivated. The political crisis that started in December 2022 has practically paralysed the country, with tourism being the most affected sector...

- 2 workshops to train new tour guides organised
- 3,765 visitors (i.e. + 587 visitors compared to 2021)
 - o Of which 216 foreigners (+127),
 - o And 3366 Peruvians (+277) of which 183 local (+16)
- Top 3 months: July, August and January
- 37 755 soles (+ 5 555 soles) = approximately 9 370€ of funds generated (+1 570€)

MESES	AÑO 2022			TOTAL MES
	NACIONALES	EXTRANJEROS	LOCALES	
ENERO	313	10	34	357
FEBRERO	304	21	0	325
MARZO	138	16	0	154
ABRIL	293	15	16	324
MAYO	288	18	5	311
JUNIO	166	17	4	187
JULIO	554	14	23	591
AGOSTO	435	33	35	503
SEPTIEMBRE	253	11	4	268
OCTUBRE	235	13	15	263
NOVIEMBRE	180	29	13	222
DICIEMBRE	207	19	34	260
TOTALES	3366	216	183	3765



La Ruta de los Encantos

This route is now more important in the context of the pandemic and the influx of Master Healers continues to increase, as does the use of medicinal plants due to people's need to go to open, safe and healthy spaces.



Forest guards

Our park rangers have worked very hard throughout the year 2020 and accepted the reduction of their salaries due to the lack of tourism, which generated a part of their salaries. Until 31 December 2020 they were able to put up with this situation. After that date only Ivan Vallejos and Valentin Sanchez remained with us.

In 2021, we hired 2 new guards. In the 2022, we hired 3 news guards: Abraham Vallejos, Deysi Vallejos and Elvis Santa Cruz. A shelter has been built for the ranger Valentin Sanchez, who is in charge of monitoring the territory in the lower part of the Reserve.



Reforestation

Due to the chronic lack of rain in the last 6 years, we have initiated a project of assisted restitution of the forest through technified irrigation. Approximately 3,500 trees have been planted along the main routes to where the water from the springs can reach by gravity. We have acquired implements such as Rain Bird electronic irrigation regulators, hoses, pipes, storage tanks, drippers and other equipment, drippers and other equipment.

Tu Tierra donated plants for communal reforestation: 2,500 trees and flowers planted. Twenty irrigation modules were also installed for 20 hectares of forest.



Equipment and infrastructure improvement

In 2022, the infrastructure and equipment for biosecurity protocols were improved & the maintenance of the tracks was carried out.



The water festival - far ich lap

This event could not take place due to the pandemic, but it is being proposed to reactivate it in 2022 together with the UNESCO Chair of the University of Genoa, the Municipality of Chiclayo, the Directorate of Culture and the Patronage of Culture of Chiclayo.

- 3 days event, 1000 participants, +10 000 spectators
- 9 co-organising partners, 11 ancestral dignitaries and 3 traditional healers
- +50 kilos of Lima beans, or pallares, distributed to the population. This is a variety of two-coloured beans used by shamans in divinatory ceremonies



Illescas

In the context of the re-categorisation as a National Reserve, we recommend support for community members who need to assert their acquired rights before the state .

Monitoring and observations are carried out by members of the community of San Martin de Sechura, including Pablo Martinez

A light aircraft flight took place in July 2022 for the 1st census = 12 431 individuals counted! Thanks to the support of the ARCA foundation of Parco Natura Viva in Italy!

This is the first regional census of the Chilean flamingo in the Piura region!



The Bear Cup

Tu Tierra was present and participated in the prizes awarded to the winning teams thanks to the support of Play For Nature.

The Peruvian Football Federation contacted the community with whom Tu Tierra is co-organising the event to offer a trip for 60 people to Huaraz and will build a stadium with the pitch, changing rooms and stands.



NEW RECOGNITION

The Chaparri Ecological Reserve is recognised as one of the projects in line with the 17 Sustainable Development Goals and the UNESCO Agenda 2030.



unesco Chair University of Genoa

M=M MUSEO ETNOMEDICINA A. SCARPA

Università di Genova

OBJETIVOS DE DESARROLLO SOSTENIBLE 2022 - 2030

La Cátedra UNESCO "Antropología de la Salud – Biósfera y Sistemas de Curación" de la Universidad de Génova, Italia y el Museo de Etnomedicina A. Scarpa

Reconocen el compromiso participativo y los resultados concretos que la ACP Chaparri y la ACP Huerta de Chaparri están realizando focalizados en la Agenda 2030 con la totalidad de los ODS.

Sinergia entre las acciones de los ODS

- Defensa de la trama social
- Alimentación ancestral
- Rescate del Paisaje Sagrado
Plantas medicinales indígenas
- Educación intercultural
Transmisión de los saberes Muchik
- Equilibrio en las decisiones
- Fiesta del Agua – Far Ich Lap
- Energía solar y redes autónomas
- Turismo Sostenible
Meliponicultura
- Innovación en la investigación
Colaboración interinstitucional
- Recuperación identidad Muchik
- Comunidades rurales fortalecidas
- Manejo de residuos y aguas grises
- Restauración de Hábitat
- Conservación de los Jagüeyes
y de su vida
- Conservación de las redes biológicas
- Manejo y resolución de los conflictos

Génova, 20 Agosto 2022

Dr Prof Antonio Garcia, Dr Prof Anna Soti, Dr Adine Gavazzi, Dr Tania Re, Dr Giovanni Parotti

Others partners

This year 2021, Javier Ruiz and the National University of Trujillo together with the Belgian universities Kuleuven and Hasselt started a project for S/ 100.000 to support other community enterprises; but apparently, they are going through some problems that prevent them from completion.

For the year 2022, specifically in the Melipona Bee Project, there are several institutions that have shown interest in strengthening the approach: Avanza Rural, Vision 2050, Play For Nature and the UNESCO Chair of the University of Genoa.

An unusual event occurred when SERFOR Cajamarca visited us to release a Tamandua in Huerta Encantada (Annex 21).

SOCIAL SUPPORT

- Tu Tierra hosted 7 English volunteers between December 22 and January 23.
- School supplies were given to children in the El Mirador sector & the distribution of Chocolatada (hot chocolate + panetone), a traditional Christmas dessert for children, took place.
- 2022 saw the creation of a school garden thanks to the provision of irrigation equipment.
- Tu Tierra supported Mr Pedro Caceres, who was ill and died in October 2022...
- Tu Tierra also supported unjustly prosecuted community members, the Rondas Campesinas and Mr. Javier Ruiz for the implementation of school gardens and the water festival



OTHER COLLABORATIONS AND SUPPORT FROM CHAPARRI

This year 2022, we have not heard of any significant progress in the projects supported by the National University of Trujillo which, together with the Belgian universities of Kuleuven and Hasselt, has initiated a S/ 100,000 project to support other community enterprises. Apparently, they are facing problems that prevent them from moving forward.

In addition to the support provided by Bioparc Zoo de Doué-la-Fontaine and Bioparc Conservaton, for the year 2022, several institutions have expressed their interest and support to Chaparri, such as Vision 2050, Cerza Conservation, Fondazione Arca, Play For Nature, Animal Planet, George Powel, Crimex, Plantaciones del Sol, Catedra UNESCO of Genova, Catedra UNESCO of Lugano.

Avanza Rural has already started to support the community of Tocmoche with melipona bees for an investment of about S/ 100,000.

Economic sustainability

The economic funds provided by Tu Tierra are very important and highly strategic to attend to the current situation in Chaparri and to continue strengthening the Biological Corridor; however, it is necessary to increase them by managing alliances and other sources of financing that help to achieve economic consolidation and the promotion of new rural community tourism enterprises that contribute percentages of their income for social support and income for social support and eco-businesses such as the rational use of forestry rational use of forest products, medicinal plants and payment for and payment for ecosystem services.

THREATS

The Chaparri ACP and the La Huerta del Chaparri ACP are considered to have the following threats:

- There are more than 32 mining denouncements within the Chaparri ACP, according to information collected from Mr. Juan Carrasco Fernandez in the Directorate of Energy and Mines of the Regional Government of Lambayeque.
- Projects for the expansion of the agricultural frontier and irrigation projects, with a view to agro-export. The Regional Government, the Chamber of Commerce and a new company from India are supporting the implementation of the questioned Regional Hydraulic Plan, which implies the construction of several reservoirs for water storage. Three of them, La Montería, Sicán and Yaipon, would directly affect the directly affect the Chaparri Ecological Reserve.

I, Heinz Plenge, personally think that this threat could be turned into an opportunity if the community has access to good information to make appropriate decisions.

- Conflicts and corruption of officials and former community leaders in struggles for control of the community board, aimed at land trafficking and control of income from ecotourism.
- SERNANP has not fulfilled its commitment to register the conservation charge in the public registers.

- SERFOR is evasive in recognising the Bear Rescue Centre.
- The creation of a new Private Conservation Area called Bosque Urum, which could become a serious threat, if it is proven that its owners, with the authorisation of SERNANP, have partially superimposed this area on land belonging to the rural community Muchik Santa Catalina de Chongoyape.

CONCLUSIONS

The 4 pillars of Cultural, Economic, Social and Environmental Sustainability have not developed evenly in the year 2021. In the context of the pandemic, the social and economic aspects have been ostensibly weakened. The Cultural and Environmental aspects have been favoured.

For 2022, these 4 pillars have not been developed in a uniform way: culture and environment have been favoured.

It is important for the year 2023 to have the basic budget necessary for the functioning of Chaparri. The hope of the rural community and of many others in Peru who are seriously considering the conservation of their resources, lies in the continued financial support provided by the Bioparc Zoo of Doué-la-Fontaine and Bioparc Conservation (and their partners), the most important and constant supporters.

Special thanks to all our partners for their support of Tu Tierra en 2022:

