Chiribiquete National Park - “The Maloca of the Jaguar”

2020 Conservation Outlook Assessment

SITE INFORMATION

Country: Colombia
Inscribed in: 2018
Criteria: (iii) (ix) (x)

Chiribiquete National Park, the largest protected area in Colombia, is the confluence point of four biogeographical provinces: Orinoquia, Guyana, Amazonia, and North Andes. As such, the National Park guarantees the connectivity and preservation of the biodiversity of these provinces, constituting itself as an interaction scenario in which flora and fauna diversity and endemism have flourished. One of the defining features of Chiribiquete is the presence of tepuis (table-top mountains), sheer-sided sandstone plateaux that outstand in the forest and result in dramatic scenery that is reinforced by its remoteness, inaccessibility and exceptional conservation. Over 75,000 figures have been made by indigenous people on the walls of the 60 rock shelters from 20,000 BCE, and are still made nowadays by the uncontacted peoples protected by the National Park. © UNESCO

SUMMARY

GOOD WITH SOME CONCERNS

Finalised on 02 Dec 2020

The site is in remarkably pristine condition overall due to its geographical isolation and the history of conflict near the buffer zone that prevented most forms of development and minimized anthropogenic threats. The site has a robust legal framework and a good management plan. After the 2016 peace deal with the FARC, because of a large decrease in the presence of armed groups, pressures from deforestation due to illegal agriculture and mining have increased in the buffer zone and have recently happened inside the site itself. This trend represents a serious concern. Managing those threats will require additional staff presence and law enforcement capacity. As the site is newly inscribed, there is little data available to assess trends in the status of its World Heritage values.
FULL ASSESSMENT

Description of values

Values

World Heritage values

► Bridge between three biogeographic provinces

Due to its unique location in the middle of two Pleistocene refuges (Napo and Imeri) and its function as a corridor between three biogeographic provinces (Orinoquia, Guyana, and Amazonia), Chiribiquete National Park hosts unique species with distinctive adaptations thought to have resulted from its geographical isolation (Alvarez, et al. 2003). Maintaining those natural connections are important to allow the continued regional migration and diversification of species (Clerici, et al. 2019).

► High floral and faunal diversity shaped by evolutionary processes

The location of Chiribiquete National Park, between the Andes, the Guiana Shield, the Amazon and Central America has brought a convergence of species to the site (Cortés and Franco 1997). The overlap in species found in the site with the Andes, the Amazonian Rainforest, the Guiana Shield and the Orinoco Savannah regions are all evidence of the common evolutionary history and the past connectivity between the regions (Bernal, et al. 2015). Several species found in the site were previously thought to only exist in other regions thus giving further credence to the hypothesis of historical and evolutionary connectivity. The Sepia-capped Flycatcher (Leptopogon amaurocephalus, LC) is very similar to the Andean species Slaty-capped Flycatcher (Leptopogon superciliaris, LC). Two typically Amazonian species of amphibian, Yapima Shield Frog (Adelophryne adiastola, LC), Smallskin Treefrog (Boana microderma, LC) and of one typically Guyanese species, Otophryne pyburni (LC) were also found in the site (State Party of Colombia, 2017).

► Unique landforms and landscapes providing habitat critical for the survival of the site’s characteristic plants and animals

The great diversity of landforms include arches, labyrinths, caverns, structural cracks more than 10 meters thick, storaxes, residual tepuis of ancient levels forming exotic structures such as chasms and concentric erosion processes on the tops of the tepuis (Vargas, 2017). These landforms harbor a plethora of species, many of which are endemic to Chiribiquete National Park (World Heritage Committee, 2018).

► Exceptionally high biodiversity

Despite few scientific surveys of the biodiversity in Chiribiquete National Park due to its geographic isolation, available data shows that 2,939 species have been recorded. These include 1,801 species of plants, and 82 species of mammals, including a bat species new to science as well as a number of globally threatened species such as the Giant Otter, Giant Anteater, Lowland Tapir, Common Woolly Monkey and Jaguar. In addition, surveys have found 60 species of reptiles, 57 species of amphibians, 492 species and subspecies of birds (including a new endemic species, the Chiribiquete Emerald Hummingbird), 238 fish species and 209 species of butterflies (including to date at least 6 potentially new species) (World Heritage Committee, 2018).

► Exceptionally high species endemism

Chiribiquete National Park contains high levels of endemism for amphibians and fish. Despite the relatively few research expeditions into Chiribiquete National Park, 21 endemic species have been
found. This number is anticipated to grow as more field surveys are undertaken (World Heritage Committee, 2018).

▶ **Threatened species**

The site contains several Endangered, Threatened and Vulnerable species according to the IUCN Red List. They include the Giant Otter (Pteronura brasiliensis, EN), Amazon River Dolphin (Inia geoffrensis, EN), Jaguar (Panthera onca, NT), Tapir (Tapirus terrestris, VU), Giant Anteater (Myrmecophaga tridactyla, VU) and Common Woolly Monkey (Lagothrix lagothricha, VU).

▶ **One of the most irreplaceable protected areas for species conservation**

The site overlaps entirely with Serrania de Chiribiquete (Chiribiquete Mountain Range), which is listed amongst the most irreplaceable protected areas in the world for the conservation of mammal, bird and amphibian species (IUCN, 2018).

**Other important biodiversity values**

▶ **Biodiversity linked with cultural and archaeological values**

The biodiversity values of the site are inextricably linked to its significant cultural and archeological values that are strongly associated to the beliefs and spiritual values of the indigenous peoples living in the site (World Heritage Committee, 2018).

**Assessment information**

**Threats**

**Current Threats**

**Agricultural encroachment, illegal coca plantations and artisanal mining, while not widespread in the park, threaten species and ecosystems. Given the decreased security threat because of the retreat of the FARC, a rapid expansion of the frontier is now underway bringing with it an increase in these illegal activities.**

▶ **Crops, Forestry/ Wood production**

*(Deforestation due to agricultural encroachment including illegal coca plantations)*

Since the peace deal with the FARC was reached in 2016 creating a power vacuum and increased access to the buffer zone and the site, deforestation has claimed 6,400 acres (2,600 ha) inside Chiribiquete National Park. This forest loss has happened since its expansion in July 2018 and 96% of it includes primary forests (Finer, Mamani 2019, Sandoval, et al., 2019, Clerici, et al. 2020). It should be noted that this is a very small percentage of the total area of the site (approximately 0.06%). More illegal deforestation has occurred in the buffer zone, providing an additional threat to the site. Statistics on this buffer zone forest loss are not yet consolidated, but Clerici et al. (2020) indicate 1.2 km² deforested in a 10km buffer in years 2016 to 2018 using the Global Forest Change dataset.

▶ **Mining/ Quarrying**

*(Illegal mining)*

Despite the issuance of a temporary suspension of the reception and processing of mining licenses and activities (Resolution No. 1518 of 2012, issued by the Ministry of Environment and Sustainable Development in conjunction with the Ministry of Mines) on mining in a Type A Forest Reserve that is part of the buffer zone, the nomination file from the State Party and the IUCN Technical Evaluation of Chiribiquete National Park (IUCN, 2018) both list illegal mining as a threat to the site.
Habitat Shifting/ Alteration, Droughts, Temperature extremes

(Temperature extremes)

Climate change is already assumed to affect the site. However, no detailed evaluation is available.

Potential Threats

Tourism and scientific expeditions are highly regulated by government authorities, but nonetheless present a threat to the lives and culture of voluntarily isolated and uncontacted indigenous peoples.

Tourism/ visitors/ recreation

(Potential threat from tourism to voluntarily isolated indigenous peoples)

Tourism is a potential threat to the rights to self-determination, territory and culture of the voluntarily isolated and uncontacted indigenous peoples. At present, there is no tourism allowed inside the site. The only currently allowed form of tourism is through flyovers by small planes on pre-arranged flight paths that are designed to be far away from known human settlements. In 2019, reporting suggests that 19 approved tour operators were authorized to conduct an allotted 40 flights (Departures, 2019). Any direct contact of any kind to these people will represent a violation of their rights and can have a long-lasting effect in terms of the loss of culture and the transmission of pathogens (IUCN, 2018). Due to the large size of the World Heritage site, it is very difficult for management authorities to prevent unauthorized visitation by river and helicopter.

Other Activities

(Potential impacts of scientific expeditions on voluntarily isolated indigenous peoples)

Scientific expeditions are a potential threat to the rights to self-determination, territory and culture of the voluntarily isolated and uncontacted indigenous peoples. Due to the very high cost, scientific expeditions are infrequently conducted. Any direct contact of any kind to voluntarily isolated and uncontacted indigenous peoples will represent a violation of their rights and can have a long-lasting effect in terms of the loss of culture and the transmission of pathogens (IUCN, 2018).

Overall assessment of threats

Encroachment into Chiribiquete National Park and its buffer zone due to the expansion of the frontier now possible because of the peace deal with the FARC, has resulted in rising deforestation due to illegal agriculture and mining that threaten species and the integrity of ecosystems. Tourism and scientific expeditions are highly regulated by government authorities, but nonetheless present a threat to the lives and culture of voluntarily isolated and uncontacted indigenous peoples.

Protection and management

Assessing Protection and Management

Management system

The site is managed by the Ministry of the Environment through the Unidad Administrativa Especial del Sistema de Parques Nacionales (UAESPNN). At the institutional level, the Territorial Directorate of Amazonía Orinoquia is responsible for on-ground management of the park.

The conservation of the site is guided by the “Plan de Manejo 2018-2022 Parque Nacional Natural Serranía de Chiribiquete” (Parques Nacionales Naturales de Colombia, 2018) that includes provisions on
management activities required for the different land use zones as well as expected biodiversity conservation outputs derived from these actions. The zones in the park are enabled through Decree 622 of 1977 that establishes 6 distinct zones for all Natural National Parks. The management plan prescribes activities that should be implemented in the buffer zone to mitigate threats to the site. Activities to protect the voluntarily isolated indigenous people in the buffer zone and inside the park are also described. The management planning process does include consultation with stakeholders, including local communities. The management plan prioritizes governance, transparent decision-making and conflict resolution.

**Effectiveness of management system**

The management authorities periodically assess the effectiveness of management using a tool called AEMAPPS (Análisis de la Efectividad del Manejo de Áreas Protegidas con Participación). While the latest management plan is well articulated, the plan (Plan de Manejo 2018-2022 Parque Nacional Natural Serranía de Chiribiquete, 2018) notes that there are limitations in the logistics and operations for monitoring, control and surveillance of the protected area and large gaps in information and knowledge of ecological and cultural values that hinder management planning and decision making. The lack of a financial sustainability strategy is also noted as a significant hindrance to overall effectiveness.

More specific limitations in management uncovered through the effectiveness evaluation include: 1) the monitoring and research program to support management decisions, 2) the lack of management capacity to effectively deal with the expansion of the park, 3) alignment of park management with regional and local authorities, especially in the expansion areas, 4) alignment between internal levels of park management, and 5) prevention, control and surveillance.

Various large projects funded through international development assistance are working to overcome the weaknesses listed above.

**Boundaries**

It is challenging to mark the boundaries of a park as large as Chiribiquete. However, much of the park boundary has been drawn to conform to natural features such as rivers and mountains. The large size of the buffer zone also provides a significant barrier for the intrusion of human uses.

**Integration into regional and national planning systems**

As the management plan (Plan de Manejo 2018-2022 Parque Nacional Natural Serranía de Chiribiquete, 2018) notes in the effectiveness evaluation, particularly in the expansion areas, coordination and integration of the site with national and regional planning systems is difficult and the park lacks sufficient capacity to do this well.

**Relationships with local people**

In general, relationships with local people are good. Although access to the interior of the park is prohibited, the buffer zone is home to numerous indigenous communities who maintain traditional and modern lifestyles.

Management authorities have signed formal agreements with 5 of 7 indigenous reservations that overlap with the buffer zone of Chiribiquete. These agreements formalize the rights of indigenous people to continue traditional and cultural uses including sustainable use. The park authorities have also pledged to facilitate the participation of community members in the plans, programs, projects and actions that are developed in the areas where interests are shared with the authorities of the indigenous reserves.

However, no formal agreements are yet in place for two of the indigenous reserves as of November 2019, when the current management plan was completed: Monochoa and Puerto Zábalo.
Legal framework

There is a robust legal framework for the site encompassing the park, the buffer zone, the indigenous peoples living in the buffer zone as well as the uncontacted ones living inside the site (IUCN, 2018). Finally, there are legal restrictions on the airspace above the park. The framework is adequate for the maintenance of its World Heritage values.

Law enforcement

Law enforcement duties are shared between park managers, the military, municipalities, and Control and Surveillance Committees. The buffer zone is a major area where law enforcement actions are conducted relating to deforestation, illegal mining, etc. As much of the area surrounding the park is in a rebuilding stage due to the recent peace deal, there is a lack of strong local institutions to carry out law enforcement duties. The park managers also have a limited number of staff and rely on the military and their aircraft to implement law enforcement in otherwise inaccessible roadless areas.

Implementation of Committee decisions and recommendations

All of the Committee requests to maintain and enhance regulations that prevent agricultural development, deforestation, road development, development of projects to enhance the natural and cultural heritage in the buffer zone and strictly prevent possible contact between non-indigenous local communities and others with isolated uncontacted communities are being actively implemented. Current budget information was not available for this assessment to gauge whether the Committee request to increase financial support was implemented. Also, there was no information available to assess whether a basic socio-economic study of the needs of local communities in the buffer zone has yet been implemented.

Sustainable use

For indigenous communities living in the buffer zone, sustainable use is practiced in the buffer zone and also allowed inside the site as agreed with 5 indigenous groups that signed agreements with the government during the park enlargement consultation. Sustainable use is also allowed for the voluntarily isolated and uncontacted persons that live inside. There are numerous incidences of deforestation from illegal agricultural in the buffer zone and also some in the interior of the park.

Sustainable finance

Currently, funding for the park comes mostly in the form of international development projects that are limited in scope and do not allow for reallocation of spending based upon urgent or priority issues. The park has a stated goal in the current management plan to develop a financial sustainability strategy within the time frame of the plan (2018 – 2022) (Parques Nacionales Naturales de Colombia, 2018).

Staff capacity, training, and development

The management effectiveness assessment referenced in the current management plan (Plan de Manejo 2018-2022 Parque Nacional Natural Serranía de Chiribiquete, 2018) notes the lack of management capacity to effectively deal with the expansion of the park.

Currently training programs exist with FUNAI, the Brazilian government agency established to carry out policies on indigenous peoples, for example a training program for peasant settler communities to develop sustainable production of sacha inchi seeds and pepper. The management plan lists numerous planned trainings (Parques Nacionales Naturales de Colombia, 2018).

Education and interpretation programs

Park managers have been working to publicize the protected area, the importance of the sustainable use of the environment and the need for protection in the municipalities of Calamar, El Retorno, Solano and at the departmental level in Guaviare and Caquetá and in nearby rural areas. Managers will be focusing on a) support for formal education; b) promotion of inter-institutional coordination; and c)
relationship with the communities located in the influence of the protected area.

The park management plans call for the development of a Program on Local Environmental Education aligned with the National Policy of Environmental Education and the National Strategy of Environmental Education which aims to: Support the social assessment of the PNN Serranía de Chiribiquete, highlighting the ecosystem services that it generates at the local, regional and national level, through environmental education, in order to promote changes in attitude, behavior and habits that minimize the risk of possible pressure on the protected area. Hence, it is a central component for the prevention of illegal activities in the area of influence of the PNN Serranía de Chiribiquete (Parques Nacionales Naturales de Colombia, 2018).

**Tourism and visitation management**

Some Concern

Tourism is prohibited inside the national park, except through overflights of the park by registered providers of this service (IUCN, 2018). However, there are known instances of illegal incursions by some tourism providers in two sectors, one in the north near Calamar, sector from Cerro Campana, and another in the southeast near Puerto Abeja by the Mesay River; however, there is no accurate information on the number of people and the frequency with which these incursions occur.

**Monitoring**

Some Concern

One of the weaknesses pointed out through the management effectiveness assessment referenced in the current management plan (Plan de Manejo 2018-2022 Parque Nacional Natural Serranía de Chiribiquete, 2018) is monitoring to support the park’s management objectives.

However, some monitoring does occur. These monitoring efforts include work done by a) the United Nations Office on Drugs and Crime (UNODC) that has uncovered illegal coca plantations, the Corpoamazonia Environmental Monitoring System – SISA and The Environmental Monitoring System of the Amazon that monitors logging in the surrounding area; b) the National Forest and Carbon Monitoring System that monitors deforestation operated by the Institute of Hydrology, Meteorology and Environmental Studies (IDEAM) - a government agency of the Ministry of Environment and Sustainable Development. The current management plan calls for strengthening inter-institutional coordination to improve the efficiency of monitoring efforts and it notes the existence of a Monitoring Program annexed to the plan (Parques Nacionales Naturales de Colombia, 2018).

**Research**

Mostly Effective

There are numerous research programs related to deforestation, indigenous peoples, biodiversity and ecosystem services that focus on Chiribiquete and the surrounding areas. The current management plan describes the potential to develop a research center of international character for Chiribiquete (Parques Nacionales Naturales de Colombia, 2018).

**Overall assessment of protection and management**

Some Concern

Most of the threats to the site are in the extensive buffer zone. While every one of the them are being addressed to some degree, the lack of staff capacity, the lack of a robust monitoring program, the reliance on the military for some law enforcement activities, the lack of agreement with 2 of 7 indigenous communities and the lack of sustainable finance remain as significant management issues to be addressed. Despite these issues, the park has a good management system, effective legal frameworks and education and research programs.

**Assessment of the effectiveness of protection and management in addressing threats outside the site**

Some Concern

The rapid increase in settlers in communities near the buffer zone, the lack of staff capacity and lack of a sustainable finance plan are significant challenges to the long-term effectiveness of managers to deal with outside threats. The lack of a signed formal agreement about traditional and cultural uses with 2 of 7 indigenous reservations overlapping the buffer zone must also be
Assessing the current state and trend of values

World Heritage values

▶ Bridge between three biogeographic provinces

Assessments conducted during the period of time leading up to inscription indicate that the unique species with distinctive adaptations are in good condition as are the linkages between the three biogeographic provinces (IUCN, 2018; State Party of Colombia, 2017). However, no new information was available since the time of inscription to assess trends.

▶ High floral and faunal diversity shaped by evolutionary processes

Assessments conducted during the period of time leading up to inscription indicate that the high floral and faunal diversity present in the site due to evolutionary processes and historical connectivity are in good condition (IUCN, 2018; State Party of Colombia, 2017). However, no new information was available since the time of inscription to assess trends.

▶ Unique landforms and landscapes providing habitat critical for the survival of the site’s characteristic plants and animals

Assessments conducted during the period of time leading up to inscription indicate that the unique landforms and landscapes that provide habitat critical for the site’s characteristic plants and animals are in good condition (IUCN, 2018; State Party of Colombia, 2017). However, no new information was available since the time of inscription to assess trends.

▶ Exceptionally high biodiversity

Assessments conducted during the period of time leading up to inscription indicate that the high biodiversity present in the site is in good condition (IUCN, 2018; State Party of Colombia, 2017). However, no new information was available since the time of inscription to assess trends.

▶ Exceptionally high species endemism

Assessments conducted during the period of time leading up to inscription indicate that the endemic species present in the site are in good condition (IUCN, 2018; State Party of Colombia, 2017). However, no new information was available since the time of inscription to assess trends.

▶ Threatened species

Assessments conducted during the period of time leading up to inscription indicate that the threatened species present in the site are in good condition. However, no new information was available since the time of inscription to assess trends.

▶ One of the most irreplaceable protected areas for species conservation

Serrania de Chiribiquete remains one of the most irreplaceable protected areas for species conservation
Summary of the Values

▶ Assessment of the current state and trend of World Heritage values

Assessments conducted during the period of time leading up to inscription of the site on the World Heritage List in 2018 indicate that the site's values are in good condition, including its biodiversity and unique landforms and landscapes, but given that this is a very recent inscription it is not yet possible to assess trends.

▶ Assessment of the current state and trend of other important biodiversity values

The linkage between the site's biodiversity values and cultural and archeological values that are strongly associated to the beliefs and spiritual values of the indigenous peoples living in the site was noted at the time of inscription. However, no new information is available to assess trends at this time.

Additional information

Benefits

Understanding Benefits

▶ Sacred natural sites or landscapes,
Sacred or symbolic plants or animals,
Cultural identity and sense of belonging

Chiribiquete is considered to be of mythical importance by several indigenous groups living outside the site and in the buffer zone and is designated the “The Great Maloca (ancestral longhouse) of the Jaguar”. Indigenous peoples of the Amazon place great spiritual significance on jaguars and the park is important to the stability of South America’s jaguar population (IUCN, 2018).

Factors negatively affecting provision of this benefit:
- Habitat change : Impact level - Low

Little data are available to determine level of impact and trends.

▶ Importance for research

The park provides an exceptional laboratory for scientific research for biological and ecological studies due to its pristine nature. As research expeditions continue, many new species are expected to be discovered (IUCN, 2018)

Factors negatively affecting provision of this benefit:
- Habitat change : Impact level - Low

▶ Carbon sequestration

Chiribiquete National Park is considered important for climate change mitigation, as well as mitigation of regional climatic variability. It has been estimated that the area captures 323 million tons of carbon (State Party of Colombia, 2017).

Factors negatively affecting provision of this benefit:
- Habitat change : Impact level - Low, Trend - Increasing
Water provision (importance for water quantity and quality)

The site is important for regional water regulation (State Party of Colombia, 2017).

Summary of benefits

The benefits from the park to cultural and spiritual values and knowledge generation are immense and have a very low level of threat from outside forces. Little data and information exists to assess other benefits.
### REFERENCES

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