IUCN Conservation Outlook Assessment 2017 **(archived)**
Finalised on 12 November 2017

Please note: this is an archived Conservation Outlook Assessment for Cerrado Protected Areas: Chapada dos Veadeiros and Emas National Parks. To access the most up-to-date Conservation Outlook Assessment for this site, please visit https://www.worldheritageoutlook.iucn.org.

Cerrado Protected Areas: Chapada dos Veadeiros and Emas National Parks

SITE INFORMATION

Country:
Brazil
Inscribed in: 2001
Criteria:
(ix) (x)

Site description:
The two sites included in the designation contain flora and fauna and key habitats that characterize the Cerrado – one of the world's oldest and most diverse tropical ecosystems. For millennia, these sites have served as refuge for several species during periods of climate change and will be vital for maintaining the biodiversity of the Cerrado region during future climate fluctuations. © UNESCO

SUMMARY

2017 Conservation Outlook

Good with some concerns

The current state of conservation of the site is relatively good. Existing threats to ecological processes, biodiversity, threatened species, and other species of particular conservation concern are minor, and management programs are relatively effective. However, conservation of the site was seriously impacted when 72% of the CdVNP was excised from the Park until June 2017. Efforts have been undertaken to restore protection regime for most parts of the site, adding otherwise new areas. However, there is a serious concern about whether the conservation of the site's OUV is guaranteed due to global change and extensive agricultural activities in the surroundings that affect biological connectivity.

Current state and trend of VALUES

Low Concern
Trend: Deteriorating

Although there still is some agricultural activity and cattle ranching within the property, including associated infrastructure like housing, fencing and paths, it is unlikely that these activities will have large scale impacts on the ecological processes and biodiversity and most of the property and large areas outside the property are in an acceptable state of conservation.

Overall THREATS

High Threat

While existing threats to the property, which include fires, agricultural activities and limited tourism, are relatively low, the combined future threats of biological isolation and potential major impacts of climate change constitute a high threat to the site. The major threat to both the CdVNP and the ENP is biological isolation, although CdVNP is better connected to other Cerrado areas than ENP. Fire is a natural phenomenon of Cerrado but has an increased frequency due to

human activities. It certainly has had a negative influence on the site's values but since Cerrado's biodiversity has evolved in presence of fire, it tolerates a certain degree of fire-related disturbance.

Overall PROTECTION and MANAGEMENT

Mostly Effective

In general, protection and management of the property within its boundaries has been relatively effective. However, conservation of the site was seriously impacted when 72% of the CdVNP was excised from the Park. Efforts have now been undertaken to restore protection regime for most parts of the site with the new expansion of the Chapada dos Veadeiros National Park.

FULL ASSESSMENT

Description of values

Values

World Heritage values

- **Key habitats and species that characterize the Cerrado Ecoregion**
  Criterion:(x)

  Cerrado Protected Areas (CPA) contains samples of all key habitats that characterize the Cerrado ecoregion – one of Earth's oldest tropical ecosystems. It contains over 60% of all floral species and almost 80% of all vertebrate species described for the Cerrado. With the exception of the Giant Otter, all of the Cerrado's endangered large mammals occur in the site. In addition, the site supports many rare small mammals and bird species that do not occur elsewhere in the Cerrado and a number of species new to science have been discovered in CPA (WHC Nomination Documentation, 2001). Located in the Brazilian highland central plateau, both national parks are considered as the richest tropical savanna region in the world due to diversity of habitats and richness in species.

- **Key role in maintaining the biodiversity of the Cerrado Ecoregion**
  Criterion:(ix)

  The area has played a key role in maintaining the biodiversity of the Cerrado Ecoregion. Due it its central location and altitudinal variation, it has acted as a relatively stable species refuge when climate change has caused the Cerrado to move north-south or east-west. This role as a species refuge is ongoing as Earth enters another period of climate change (WHC Nomination Documentation, 2001).

Other important biodiversity values

► Adaptation to climate change

CPA is a key site for Cerrado species adapting to climate change. CPA is very important as a base from which key species of fauna can move out to re-populate surrounding areas and remaining “islands” of natural and semi-natural vegetation within the Cerrado ecoregion. (IUCN evaluation, 2001)

► Water security

CPA is important for regional water security, as it includes headwaters of three of South America’s major river bassin (Tocantins, Paraná and São Francisco).

► Ecological connectivity

CPA s is included in the Cerrado-Pantanal biological corridor, which aims to conserve local mammal populations in the long term between Cerrado and Pantanal.

Assessment information

Threats

Current Threats

High Threat

Current threats to the site include fire associated with cattle ranching and limited impacts of tourism. Fire is a natural element of the ecosystem, and species are adapted to it, but has an increased frequency due to human activities. It certainly has had a negative influence on the site’s values but since Cerrado’s biodiversity has evolved in presence of fire, it tolerates a

certain degree of fire-related disturbance.

► Fire/ Fire Suppression

Very High Threat
Inside site, widespread(15-50%)
Outside site

Fires are a significant threat to both Chapada dos Veadeiros National Park (CdVNP) and Emas National Park (ENP) during the dry season (July to september). The ENP is particularly susceptible, and nearly the whole Park has been burned in recent years. While lightning fires are a natural component of the local environment, man-caused fires that originate in surrounding landscapes add to the danger. (UNEP-WCMC, 2011; IUCN Evaluation, 2001) It damages 1000s of ha every year which is much more than natural rhythm. Fire frequency has been increased due to human action, to renovate pastures especially along main roads and in areas occupied by cattle ranching, impacting long-term dynamics of plant communities and species richness. In 2010, Rappam assessment considered anthropogenic fires as severes and generalized, in 15-50% of the Pouso Alto Area.

► Crops, Livestock Farming / Grazing

High Threat
Inside site, extent of threat not known
Outside site

Ranching is a major threat to the Cerrado ecoregion and rapid soil changes have been observed in the last two decades. The CdVNP is almost entirely surrounded by agricultural areas, and under pressure from increased cattle grazing and crop cultivation, particularly in its northern limits. Cattle grazing and crop cultivation are carried out within and outside the property, including associated infrastructure like housing, fencing and paths. Evidence of the use of lands for cattle ranching is fairly widespread, and the activity is reported to be increasing. As cattle ranching is an activity that relies on the expansion of open areas to the detriment of scrub forest, there has also been a tendency to set more “brush cleaning” fires in the property (SOC report, 2013).

► Tourism/ Recreation Areas

Very Low Threat
Inside site, localised(<5%)
Outside site

Cerrado ecoregion is an important tourist attraction, due to its landscape and waterfalls, which attract visitors from Brasilia and others urban centers (Sao Paolo, Rio de Janeiro). Tourism and recreation infrastructure is limited to dirt tracks and trails within the property. In the ENP, a Visitor Center is situated near Park Headquarters, while in the CdVNP the Visitor Center is located in the town of São Jorge (in the South Western part of the area). Overnight facilities, restaurants, and stores are available in surrounding communities. Level of visitation is increasing continously : in 2015, the CdVNP received 56630 visitors, a number 43.5% greater than in the previous year. But the management plan limits public use to the park's major attraction (rapids, waterfalls, canyons), taking into account the charge capacity of the sites (some paths are limited to 250 visitors per day).

Potential Threats

High Threat

The major threat to both the CdVNP and the ENP is biological isolation, although CdVNP is better connected to other Cerrado areas than ENP. Nonetheless, both of these Parks are too small to provide the full range of habitat needed to conserve wide ranging species, such as top predators and some bird species. Potential impacts of climate change include greater frequency and severity of droughts and floods, and shifting of Cerrado Biome to the south and east.

► Other

High Threat
Inside site, widespread(15-50%)
Outside site

A major threat to both CdVNP and ENP is biological isolation due to extensive agricultural activities in their surroundings. Both of these Parks are too small to provide the full range of habitat needed to conserve wide ranging species, such as top predators and some bird species. (36COM.Cerrado, SPreport.

IUCN Evaluation, 2001; UNEP-WCMC, 2011; ICMBio, 2009; Pukensis Tubelis, 2010). This is a high threat but there are good areas around the site that provide connectivity, but they have a low formal conservation status. Given criteria (ix) and considering the previous World Heritage Committee decisions, the inclusion of the Kalunga Quilombo Territory and two RPPN by the decree of the 5 june 2017 expanding the CdVNP enhances ecological connection of the Cerrado landscape.

► Droughts, Storms/Flooding

High Threat
Inside site, throughout(>50%)
Outside site

Potential impacts of climate change include greater frequency and severity of droughts and floods, resulting in a reduction of primary productivity and shifting of Cerrado Biome to the south and east. in the next 40 years, key tree species are projected to decline over 90% of the existing region of the Biome. (Martinez and Peterson, 2003). Climate change might also impact through higher fire frequency. The property has shown to be a refuge that has survived many events in history.

Protection and management

Assessing Protection and Management

► Relationships with local people

Some Concern

Relationships with surrounding communities are relatively positive and members of the local Tourist Guide Association and Flower Collectors Association assist in the administration of CdVNP. Many longstanding and more recent residents of the surrounding areas have invested in conservation friendly enterprises and activities, including: ecotourism, creation of private nature reserves, transportation and guide services, inns, restaurants, hotels, arts and crafts, and others, the target audience for which essentially coincides with the stream of visitors and tourists to the CdVNP. The Emas Foundation supports educational and management programs in

and around the ENP working with local communities. (36COM.CerradoSPreport; UNEP-WCMC, 2011). Nonetheless, some have opposed management and the proposed extension of CdVNP. Initially, a strict return to the original national park boundaries at the time of inscription was no longer an option due to the resistance of a group of landowners and unclear land tenure situation. But after a public consultation process and meetings with rightsholders, a new extension has been implemented, including territory of the local community Quilombola Kalunga.

► Legal framework

Some Concern

As a consequence of a decision of the Supreme Court taken in 2003, the CdVNP area returned to its former size of 65 515 ha. The Government of Brazil has been trying to re-establish the legal framework for the protection of the area inscribed on the World Heritage List. This process was slow, among others because of a change in institutional setting (establishment of ICMBio in 2007). A presidential decree signed on 5th June 2017 set up the expansion of the boundaries of the CdVNP, re-establishing the national park status to most of the original area, except in the degraded lands by agricultural activities. New boundaries integrate part of the municipalities of Teresina de Goiás, Nova Roma and Sao Joao da Aliança. The final expansion covers 240611 ha, adding important habitats areas for mamals species, while excluding the most degraded areas in the north of the property (comm. pers. 2016). The approach of restoring legal protection to the largest extent possible within the existing property, and through establishing a mosaic of different protected areas within and outside the property to restore its integrity is a valid strategy (Mission report, 2013, 2016; SOC report, 2013). In addition to this expansion, land tenure regularization and discriminatory actions are underway, based on mapping studies achieved in 2015, but this process could take several years to be achieved. The Memorandum of Understanding signed between the Ministry of Environment, the Chico Mendes Institute for the Conservation of Biodiversity (ICMBio) and the Government of the State of Goiás will promote rural environmental registry of properties in the region, also supported by international cooperation programmes.

► Enforcement

Data Deficient

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► Integration into regional and national planning systems

Mostly Effective

To help to overcome the relative isolation of Emas National Park, it has been recommanded to develop and to implement the Cerrado-Pantanal biological corridor (IUCN evaluation report, 2010). Conservation International is working with local, state, and national authorities to develop this conservation corridor. At CdVNP similar efforts continue to develop a variety of national, state, and private conservation instruments to guarantee the integrity of the area that was excised from the Park. (36COM.Cerrado.SPreport; UNEP-WCMC, 2011; ICNBio, 2009). Together with Pouso Alto Environmental Protection Area and private reserves (RPPN), the CdVNP is part of the Cerrado Biosphere reserve, which focuses on restoration of altered areas and building of ecological corridors. The largest ecological integration is the Paranã-Pirineus Ecological Corridor.

► Management system

Some Concern

Management of both the CdVNP and EMP are guided by separate management plans that provide for programs with respect to research, monitoring, protection, tourism and recreation, infrastructure, environmental education and regional integration. (UNEP-WCMC, 2011; ICMBio, 2009). Pouso Alto Environmental Protection Area (IUCN category V), which overlaps with CdVNP, has a management plan approved in 2014 and effectively implemented. An adaptative fire management is under preparation by ICMBio to reduce the risk of large scale fires. However, there is a need for an integrated management plan for all the components of the property.

► Management effectiveness

Some Concern

Though monitoring indicators are outlined in the management plans for the

two Parks, information is unavailable on the status and trends of these indicators or on any evaluations of management effectiveness that may have been undertaken. The assessment of Management effectiveness (RAPPAM methology) was executed for all Federal conservation units in 2006 and 2010. In 2006, the overall management of CdVNP was considered "low" (32% effectiveness) due to mainly a lack of infrastructures, human and financial ressources, and management plan but this increased strongly in the following years. In 2010, the effectiveness for CdVNP was considered medium/high level at 59% effectiveness (the limit between "medium" and "high" effectiveness is 60%) (Mission reports 2013, 2016)

► Implementation of Committee decisions and recommendations

Some Concern

The property has been the subject of six state of conservation reports (2011, 2012, 2013, 2015, 2016, 2017), mainly because of loss of the protection status generated by the significant reduction of Chapada dos Veadeiros national park boundaries. While efforts have continued to effectively protect the OUV of the areas that were excised from the CdVNP after its World Heritage designation, it has been possible to re-establish its protection regime on an area extended to 240611 ha, at the end of a very long process (36COM.Cerrado.SPreport; SOC report, 2017, comm. pers. Lefebvre, 2016, SP report 2017)

► Boundaries

Some Concern

Since its creation in 1961, Chapada dos Veadeiros National Park suffered major boundaries changes, that led to divide the original area by 10. Established in 1961 as the Tocantins National Park with an extension of 625 000 ha, it has thus been successively reduced to 171 924 ha in 1972 then 60 000 ha in 1981. This continuous revision of park boundaries was mainly justified by the degradation of many areas, converted into pastures for extensive cattle grazing. CdVNP boundaries changed after inscription and reduced the Park from about 236,000 ha to 65,500 ha in 2003, but a Presidential decree (5th of June 2017) expanded the area to 240611 ha, including a mosaic of conservation units (private reserves, Quilombola

Kalunga territory).

▶ Sustainable finance

Some Concern

In CdVNP, management activities depend on budgetary federal resources (R$ 1.5 million, 2016) and land regularization is mainly financed by environmental compensation (R$ 10,5 millions, 2016) (SP report, 2017). But resource restrictions have hindered efforts to implement the management plans of both national parks (36COM.Cerrado.SPreport; UNEP-WCMC, 2011).

▶ Staff training and development

Data Deficient

CdVNP management staff has 63 people from ICMBio, supported by 36 fire-fighters from local communities and 120 volunteers working on tourism, monitoring, ecological restoration and communication (SP report. 2017). No data is available for ENP.

▶ Sustainable use

Data Deficient

According the Brasilian legislation, direct use of natural resources is not allowed in the national parks.

▶ Education and interpretation programs

Highly Effective

Visitor Centers have been developed in both CdVNP and ENP, and guides are required to accompany all visitors to the CdVNP and ENP. (UNEP-WCMC, 2011).

▶ Tourism and visitation management

Highly Effective

The CdVNP is one of the 10 most visited protected areas in Brazil. Level of visitation is increasing continously : in 2015, the park received 56630 visitors, a number 43.5% greater than in the previous year. But the management plan limits public use to the park’s major attraction (rapids, waterfalls, canyons), taking into account the charge capacity of the sites

(some paths are limited to 250 visitors per day). (Thierry Lefebvre, comm. pers. 2016). Tourism activities are concentrated in the South Western part of the area. One of its main attractions is the widespread occurrence of quartz crystals, which are thought to endow the area with a high level of geo-energy, and is an attraction for “spiritual tourism”. It also is well known for a series of beautiful rivers, waterfalls, and canyons. Even though the ENP is the only neotropical savannah where it is relatively easy to view large animals, it only has a few visitors each year. The CdVNP has a series of viewpoints along the road that contours the southern boundary, and a number of hiking trails have been developed within the Park. (36COM.Cerrado.SPreport; UNEP-WCMC, 2011).

► Monitoring

Highly Effective

Monitoring indicators proposed in the management plan include water quality, wildfires, birds, research projects and publications, numbers educated with respect to the environment, comparative satellite images and regional land use. Monitoring programs are carried out by Park Staff with the cooperation of local guides and research scientists. (ICMBio, 2009)

► Research

Highly Effective

In CdVNP research projects are mostly focused on botany while in ENP there have been continuous biological research projects over the past 40 years. The ENP has a research lodge with adequate facilities. (UNEP-WCMC, 2011). Since 2008, more than 400 scientific research projects have been submitted to CdVNP, of which 38 have been registered in 2016.

Overall assessment of protection and management

Mostly Effective

In general, protection and management of the property within its boundaries has been relatively effective. However, conservation of the site was seriously impacted when 72% of the CdVNP was excised from the Park. Efforts have now been undertaken to restore protection regime for most parts of the site with

the new expansion of the Chapada dos Veadeiros National Park.

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

The 72% reduction in the size of the CdVNP between 2003 and 2017 converted the excised area into a buffer zone. Efforts to protect the OUV in this area through other means have been relatively effective to date (36COM.Cerrado.SPreport). Data is deficient on the effectiveness of protection and management efforts in addressing threats outside the ENP.

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ **Key habitats and species that characterize the Cerrado Ecoregion**
Low Concern
Trend:Deteriorating

Although there still is some agricultural activity and cattle ranching within the property, including associated infrastructure like housing, fencing and paths, it is unlikely that these activities will have large scale impacts on the ecological processes. The current fire frequency is higher than the natural rhythm of wildfires and forms a threat to the biodiversity. However, given the fact that Cerrado biodiversity has evolved in the presence of fire, many species tolerate fire events. Without doubt, human induced fires have influenced the current composition of the landscape and biodiversity but it has not drastically reduced the unique value of the biodiversity. (Mission Report, 2013).

▶ **Key role in maintaining the biodiversity of the Cerrado Ecoregion**
Low Concern
Trend:Deteriorating

Despite the loss of the national park status between 2003 and 2017 on 72%

of its sector I (Chapada dos Veadeiros), and rapidly loss vegetation cover due to land conversion of some areas in the northern part, the OUV of the property has been globally preserved.

Summary of the Values

► **Assessment of the current state and trend of World Heritage values**

Low Concern

Trend: Deteriorating

Although there still is some agricultural activity and cattle ranching within the property, including associated infrastructure like housing, fencing and paths, it is unlikely that these activities will have large scale impacts on the ecological processes and biodiversity and most of the property and large areas outside the property are in an acceptable state of conservation.

Additional information

Benefits

Understanding Benefits

► **Environmental services, Water provision (importance for water quantity and quality)**

The region is an important source of main river systems. In fact, the northeastern part of Goiás drains to several of the countries' main river systems (Tocantins, Paraná and São Francisco)

► **Health and recreation, Outdoor recreation and tourism**

Cerrado ecoregion is an important tourist attraction, due to its landscape and waterfalls, which attract visitors from Brasilia and others urban centers (Sao Paolo, Rio de Janeiro). It is widely believed in the region of CdVNP that the quartz crystals, which are found in the park and surrounding area, are a

potent source of bioenergy that has therapeutic and restorative effects on humans. The community of Alto Paraíso, on the eastern boundary of the park, caters to visitors seeking guidance in meditation, enlightenment, and physical and spiritual renewal. They have thus created a specialized niche in the tourism market for “spiritual” tourism. Park management has recognized the potential and requirements for this specialized form of tourism. There are special arrangements for park visitation by these groups and innovative environmental education and visitor interpretation programs associated with this theme.

Summary of benefits

Conservation is by the most significant benefit of this property and is of national and global importance. Tourism to the CdVNP provides a local economic benefit to nearby communities.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	Emas Foundation		Supports educational and management programs in and around ENP with the support of Conservation International.
2	ICMBio		The Paranã-Pireneus Cerrado Ecological Corridor (Corredor Ecológico do Cerrado Paranã-Pireneus – CECPP) encompasses 29 Conservation Units, including the entirety of Sector I of the property. The corridor runs through 17 Federal Conservation Units and 124 State Conservation Units, in addition to the Avá Canoeiro Indigenous Territory. The CECPP extends across an area of 99,734 km2 in the states of Goiás, Tocantins, and the Federal District. Launched in 1999, the project is composed of 45 municipalities.

№	Organization/ individuals	Project duration	Brief description of Active Projects
3	ICMBio, The Nature Conservancy, O Boticário Foundation.		The Tombador Veadeiros Ecological Corridor (Corredor Ecológico Tombador Veadeiros – CETV) project promotes the creation of an ecological corridor between the CdVNP and the Serra do Tombador Natural Reserve in the municipality of Cavalcante, Goiás. The purpose is to connect the two Conservation Units, currently separated by slightly more than 20 kilometers, through the designation of Legal Reserves (Reserva Legal) and Permanent Preservation Areas (Áreas Preservação Permanente) intended to establish a physical corridor for wildlife and plants. The initiative is also aimed at linking the two areas to the Kalungas Quilombo Territory.
4	UNESCO, ICMBio		The CdVNP is a nucleus zone of the Cerrado Biosphere Reserve.
5	ICMBio, Conservation International		The Emas-Taquari Corridor extends across Cerrado and Pantanal landscapes. Running from southeastern State of Goiás through the center-north of the State of Mato Grosso do Sul and southeastern Sstate of Mato Grosso, it covers almost six million hectares and encompasses the municipalities of Alcinópolis, Alto Araguaia, Chapadão do Céu, Costa Rica, Coxim, Mineiros, Portelândia and Serranópolis. Three Conservation Units constitute the core of the Emas-Taquari Corridor: the ENP, the Nascentes do Taquari State Park, and the Ponte de Pedra Private Natural Heritage Reserve (RPPN), extending over 163,850 hectares.
6	SISBiota Project (UNB)	From: 2012	Research and monitoring of protected areas in Cerrado
7	Tropical Forest Conservation Act (TFCA) committee	From: 2015	This project funded through a US debt-for-nature swaps aims to intensify the Rural Environmental Registry (CAR) within the Pouso Alto Environmental Protection Area (APA). The vegetation cover will be mapped in more than 2 200 rural properties to help the establishment of Areas of Permanent Preservation (APP).
8	KFW-MMA	From: 2015	Environmental regularization of rural properties in the Amazon and the Cerrado

№	Organization/ individuals	Project duration	Brief description of Active Projects
9	Preventing, controlling and monitoring fires in the Cerrado (BMUB)	From: 2011 To: 2017	Improved fire management and new monitoring systems for fires and deforestation helping to maintain the Cerrado as a global carbon reservoir and to preserve biodiversity.

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