

Sitename:-Cerrado Protected Areas: Chapada dos Veadeiros and Emas National Parks

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.



Conservation Outlook

Rating:-Significant Concern

Justification:-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. Efforts have been undertaken to restore protection regime for all parts of the site. However, until the situation is resolved, there is a serious concern about whether the conservation of the site's OUV is guaranteed.

Current state and Trend of values

State:-Low Concern

Trend:-Deteriorating

Justification:-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

Overall Rating:-High Threat

Summary:-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.

Protection and Management

State:-Serious Concern

Justification:-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 been undertaken to restore protection regime for all parts of the site. However, until the situation is resolved, there is a serious concern about whether the conservation of the site's OUV is guaranteed.

Assessment Information

Value

World Heritage Values

State:-Low Concern

Trend:-Deteriorating

1: Key habitats and species that characterize the Cerrado Ecoregion

State:-Low Concern

Trend:-Deteriorating

Description:-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 (IUCN Evaluation, 2001)

2: Key role in maintaining the biodiversity of the Cerrado Ecoregion

State:-Low Concern

Trend:-Deteriorating

Description:-The area has played a key role in maintaining the biodiversity of the Cerrado Ecoregion. Due to 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 (IUCN Evaluation, 2001).

Other Biodiversity values

1: Other international designations

Description:-Birdlife International Important Bird Area; Conservation International Hotspot; Global 200 Ecoregion; WWF/IUCN Center of Plant Diversity; and a MAB Biosphere Reserve. (UNEP-WCMC, 2011)

Threats

Current Threats

1: Crop production

Threat Rating:-High Threat

Justification:-Agricultural activities are carried out within 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).

2: Tourism/ Recreation Areas

Threat Rating:-Very Low Threat

Justification:-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. Overnight facilities, restaurants, and stores are available in surrounding communities.

3: Fire/ Fire Suppression

Threat Rating:-Very High Threat

Justification:-Fires are a threat to both the Chapada dos Veadeiros National Park (CdVNP) and Emas National Park (ENP) during the dry season. 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. Also, climate change might impact through higher fire frequency

Potential Threats

1: Other

Threat Rating:-High Threat

Justification:-A major threat to both the CdVNP and the ENP is biological isolation. 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.

1: Droughts

Threat Rating:-High Threat

Justification:-Potential impacts of climate change include greater frequency and severity of droughts and floods, and shifting of Cerrado Biome to the south and east. Key tree species are projected to decline over 90% of the existing region of the Biome. (Martinez and Peterson, 2003). The property has shown to be a refuge that has survived many events in history.

Protection and management

Overall Rating:-Serious Concern

Justification:-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 been undertaken to restore protection regime for all parts of the site. However, until the situation is resolved, there is a serious concern about whether the conservation of the site's OUV is guaranteed.

Protection and management value

1: Research

Protection Rating:-Highly Effective

Justification :-In CdVNP research is focused mostly on geomorphology 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).

2: Monitoring

Protection Rating:-Highly Effective

Justification :-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)

3: Tourism and visitation management

Protection Rating:-Highly Effective

Justification :-With over 20,000 visitors annually, the CdVNP is one of the 10 most visited protected areas in Brazil. 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)

4: Education and interpretation programs

Protection Rating:-Highly Effective

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

5: Sustainable use

Protection Rating:-Data Deficient

Justification :-.

6: Staff training and development

*Protection Rating:-*Data Deficient

Justification :-.

7: Sustainable finance

*Protection Rating:-*Some Concern

*Justification :-*Resource restrictions have hindered efforts to implement the management plans. (36COM.Cerrado.SPreport; UNEP-WCMC, 2011).

8: Boundaries

*Protection Rating:-*Serious Concern

*Justification :-*CdVNP boundaries changed after inscription and reduced the Park from about 236,000 ha to 65,500 ha. The area that was excised is now an Environmental Protection Area where sustainable use is permitted. This is a conservation designation that is not considered strong enough to guarantee the conservation of the OUVs that led to its listing as World Heritage. (36COM.Cerrado.SPreport)

9: Implementation of Committee decisions and recommendations

*Protection Rating:-*Serious Concern

*Justification :-*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 not yet been possible to fully re-establish its protection regime. (36COM.Cerrado.SPreport; SOC report, 2013)

10: Management effectiveness

*Protection Rating:-*Some Concern

*Justification :-*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 methodology) was executed for all Federal conservation units in 2006 and 2010. In 2006 the overall management of CdVNP was considered "low" (32% effectiveness) but this increased strongly in the following years. In 2010, the effectiveness for CdVNP was considered medium at 59% effectiveness (the limit between "medium" and "high" effectiveness is 60%) (Mission report 2013)

11: Management system (for transboundary/serial properties, integrated management system should also be described/evaluated)

*Protection Rating:-*Some Concern

*Justification :-*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).

12: Integration into regional and national planning systems (including sea/landscape connectivity)

Protection Rating:-Effective

Justification :-Conservation International is working with local, state, and national authorities to reduce the ecological isolation of ENP by developing a conservation corridor to link the ENP to the Pantanal Wetland. 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).

13: Legal framework

Protection Rating:-Serious Concern

Justification :-Since 2003, 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). Re-establishment of the protected status of the entire property is not feasible due to the established human presence in those areas. In addition to increased human intervention in the area, there is an unclear land tenure situation and continued resistance among a small group of landowners/cattle ranchers against establishment of protected areas of a management regime that implies exclusion of agricultural practice. Therefore, 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, provided that it can be delivered. (Mission report, 2013; SOC report, 2013).

14: Relationships with local people (including stakeholder relationships, participatory management, rights, and access to benefits and equity)

Protection Rating:-Effective

Justification :-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.

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

Rating :-Data Deficient

Justification :-The 72% reduction in the size of the CdVNP 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.

Best Practice Examples

Justification :-no Jstification avilable

Additional Information

Key Conservation Issues

1: Fire

Scale :-Local

Description :-Fires are a threat to both the CdVNP and ENP during the dry season. 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. (WDPA Data Sheet, 2011; IUCN Evaluation, 2001)

2: Lack of protection regime

Scale :-National

Description :-Conservation of the site was seriously impacted when 72% of the CdVNP was excised from the Park. Efforts have been undertaken to restore protection regime for all parts of the site. However, until the situation is resolved, there is a serious concern about whether the conservation of the site's OUV is guaranteed.

3: Biological isolation

Scale :-National

Description :-The major threat to both the CdVNP and the ENP is biological isolation. 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; WDPA Data Sheet, 2011; ICMBio, 2009; Pukensis Tubelis, 2010)

Benefits

1: Health and recreation

Community within site :-Not avilable

Community outside site :-Major

Wider Community :-Not avilable

Summary :-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.

2: Environmental Services

Community within site :-Not available

Community outside site :-Major

Wider Community :-Not available

Summary :-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)

3: Nature conservation values

Community within site :-Not available

Community outside site :-Major

Wider Community :-Not available

Summary :-The Cerrado Biome covers about 23% of Brazil, about equal to the size of Western Europe. Over the last 30 yr or so, the Cerrado region has been transformed by rapid expansion of intensive agriculture; only 20% of the original area remains in primary vegetation and only 2.25% is protected. This situation is of great concern because this biome is rich in endemic species; indeed, for plants, endemism reaches 44% of the total of 10,000 species. Thus, the Property is of critical importance for the conservation of this important biome. The CdVNP is particularly important because of its altitudinal variation..

Projects

Active Conservation Projects			
N.O	Organization/individuals	Brief description of Active Projects	Contact Details
1	Supports educational and management programs in and around ENP with the support of Conservation International.	Emas Foundation	.
2	<p>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.</p> <p>The corridor runs through 17 Federal Conservation Units and 124 State Conservation Units, in addition to the Avá Canoeiro Indigenous Territory.</p> <p>The CECPP extends across an area of 99,734 km² in the states of Goiás, Tocantins, and the Federal District.</p> <p>Launched in 1999, the project is composed of 45 municipalities.</p>	ICMBio	.

Active Conservation Projects

N.O	Organization/individuals	Brief description of Active Projects	Contact Details
3	<p>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.</p>	<p>ICMBio, The Nature Conservancy, O Boticário Foundation.</p>	.
4	<p>The CdVNP is a nucleus zone of the Cerrado Biosphere Reserve.</p>	<p>UNESCO, ICMBio</p>	.

Active Conservation Projects

N.O	Organization/individuals	Brief description of Active Projects	Contact Details
5	<p>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.</p>	ICMBio, Conservation International	.

Active Conservation Projects

Brief description of Active Projects			
N.O	Organization/individuals	Brief description of Active Projects	Contact Details
No Data Available			

References

Rn0	References
1	36COM.Cerado.SPreport.
2	35COM.Cerrado.SOC
3	IUCN Evaluation, Cerrado.2001
4	Instituto Chico Méndes de Conservação da Biodiversidade, 2009. Plano de Manejo Parque Nacional da Chapada dos Veadeiros Resumo Executivo.
5	Pukensis Tubelis, Dárius. 2010. When a large reserve is not large enough to protect part of a population: Blue-and-yellow Macaws (Area ararauna) in Central Brazil. Biotemas 23(3). September, 2010.
6	WDPA Data Sheet, 2010. Cerrado Protected Areas.
7	Martinez Fereira de Siguiera, and Andrew Townsend Peterson. 2003. Consequences of Global Climate Change for Geographic Distributions of Cerrado Tree Species. Biota Neotropica v3(n2).
8	Mission Report, 2013. Robert Hofstede.
9	SOC report, 2013.