IUCN Conservation Outlook Assessment 2014 **(archived)**
Finalised on 23 October 2014

Please note: this is an archived Conservation Outlook Assessment for Iguaçu National Park. To access the most up-to-date Conservation Outlook Assessment for this site, please visit https://www.worldheritageoutlook.iucn.org.

Iguaçu National Park

SITE INFORMATION

Country:
Brazil
Inscribed in: 1986
Criteria:
(vii) (x)

Site description:
The park shares with Iguazú National Park in Argentina one of the world's largest and most impressive waterfalls, extending over some 2,700 m. It is home to many rare and endangered species of flora and fauna, among them the giant otter and the giant anteater. The clouds of spray produced by the waterfall are conducive to the growth of lush vegetation. © UNESCO

SUMMARY

2014 Conservation Outlook

Significant concern

The overall outlook for the conservation of the site’s World Heritage values is of significant concern. Threats include degradation of the natural setting of the waterfalls, hunting, biological isolation, the effects of unnatural changes in river levels because of upstream dams, including ongoing dam construction in close proximity to the site's boundaries, and potential ecosystem changes driven by climate change. While more effective management might improve the natural setting of the falls and reduce hunting, relatively little can currently be done to reduce or mitigate threats originating outside the Park, including biological isolation, the effects of existing dams, or climate change.

Current state and trend of VALUES

High Concern
Trend: Stable

The natural beauty of the Iguaçu waterfalls is being negatively impacted from unnatural changes in river levels and tourism. Studies tend to indicate that biodiversity is being conserved with a few notable exceptions. Concern remains with regard to declining jaguar populations, unnatural alterations in water levels of the Upper Iguaçu River, biological isolation, and potential habitat shifts caused by climate change.

Overall THREATS

Very High Threat

Threats from biological isolation, tourism infrastructure and activities and dams on the upper Iguazú River, including the confirmed ongoing construction of the Baixo Iguaçu hydroelectric project without prior assessment of its impacts on the Outstanding Universal Value of the property, constitute a very high level of threat to the Property’s values. Agitation to re-open the “Estrada do Colono” remains a

very high potential threat.

Overall PROTECTION and MANAGEMENT

Mostly Effective

In general, protection and management of the Park is relatively effective within its boundaries, especially considering the high rate of visitation, but the impacts of threats originating outside the site, including biological isolation due to agriculture, livestock grazing, roads and other infrastructure and upstream dams are considerable.

FULL ASSESSMENT

Description of values

Values

World Heritage values

- **One of the largest and most impressive waterfalls in the world**
  Criterion:(vii)

  The park shares with Iguazu National Park in Argentina one of the world's largest and most impressive waterfalls comprised of a system of numerous cascades and rapids almost three kilometres wide within the setting of a lush and diverse sub-tropical broadleaf forest. The permanent spray from the cataracts forms impressive clouds that soak the forested islands and river banks resulting in a visually stunning and constantly changing interface between land and water (Draft SoOUV, 2011; Evaluation Report, 1986, SoOUV (Iguazú), 2013)

- **Exceptional biodiversity**
  Criterion:(x)

  Iguaçu National Park, together with the contiguous World Heritage property of Iguazú National Park in Argentina and adjacent protected areas, forms the largest single protected remnant of the Paranaense subtropical rainforest, which belongs to the Interior Atlantic Forest. The rich biodiversity includes over 2000 species of plants, 400 species of birds and possibly as many as 80 mammals, as well as countless invertebrate species. Rare charismatic species include the broad-snouted Caiman, Giant Anteater, Harpy Eagle, Ocelot and the Jaguar. Next to the waterfalls along the river and on the islands a highly specialized ecosystem full of life has evolved in response to the extreme conditions of the tumbling water and soaking humidity (IUCN

Evaluation Report, 1986) (Draft SoOUV, 2011) (SoOUV (Iguazú, 2013).

Assessment information

Threats

Current Threats

Very High Threat

Threats from biological isolation, tourism infrastructure and activities and dams on the upper Iguazú River, including the confirmed ongoing construction of the Baixo Iguaçu hydroelectric project without prior assessment of its impacts on the Outstanding Universal Value of the property, constitute a very high level of threat to the Property’s values.

► Livestock Farming / Grazing

Very High Threat

The Park is an island in a sea of ranching and farming which comes right up to the Park’s boundaries, limiting connectivity within the Atlantic Forest Biome in Brazil. Large cats from the Park that prey on livestock outside the Park are eliminated. Connectivity to the Atlantic Forests remaining in Argentina is limited by the area known as the “Argentine Peninsula Bottleneck”. (Mission report, 2008).

► Tourism/ visitors/ recreation

High Threat
Inside site
Outside site

Tourism infrastructure has led to an impairment of natural aesthetic values. For visitors to the Brazilian side of the waterfalls, the most predominant non-natural component of the view towards the Argentinean side is the Sheraton Iguazú Hotel, the old unused walkways to the Garganta del Diablo viewpoint, and the water tower. For visitors to the Argentinean side, the infrastructure

on the Brazilian side that interferes most with the natural landscape include the Porto Canoas Restaurant located on the lip of the Floriano Waterfalls; the Naipi Souvenir Shop, elevator, and walkway to the Santa Maria falls; and the Hotel das Cataratas. Visitor activities that most impact aesthetic values are the adventure boat excursions on the lower Iguazú River, which originate both on the Argentinean and Brazilian sides, and the helicopter flights over the falls originating on the Brazilian side (Mission report, 2008).

► Tourism/ visitors/ recreation

Low Threat

Visitor facilities, including roads and trails, the visitor reception center, kiosks, administrative offices and research center have all had an impact on vegetation and wildlife in the waterfall area of the Park, the area of greatest biodiversity and highest number of endemics. (Mission report, 2008)

► Commercial hunting

High Threat
Inside site

The protection afforded the Park has maintained the populations of wildlife that are attractive to hunters. The Park has a very active program to intercept and detain hunters. While this has had a deterrent effect, hunters still venture into the Park, though at great risk. Several jaguars, which were being monitored, have been shot by hunters within the Park.

► Invasive Non-Native/ Alien Species

Data Deficient
Inside site
Outside site

Aquatic invasive species have been detected in the Park, but the level of damage is unknown.

► Dams/ Water Management or Use

Very High Threat
Inside site
Outside site

These dams, though located outside the property, have considerably altered

the rate and periodicity of water flow that feeds the waterfalls. On weekends, when the demand for electricity is low, the dams are closed causing the waterfall to have less water during the beginning of the week. The decreased flow damages the aesthetics of the waterfalls. (Mission report, 2008). The unnatural fluctuation in water levels and rates of flow also affect riverine flora and fauna, though the specifics are unknown (Pedersen and Putney, 2008).

Brazil confirmed in February 2014 that the Baixo Iguaçu hydroelectric project is under construction, while Environmental Impact Assessments are ongoing (State Party report, 2014). The construction of this dam has commenced without a prior assessment of its impacts on the Outstanding Universal Value of Iguaçu National Park. Once completed, the dam would be likely to exacerbate existing impacts noted above, including on water flow over the falls and on riverine flora and fauna.

Potential Threats

Very High Threat

Agitation to re-open the “Estrada deo Colono” road remains a very high potential threat. The potential for habitat shift caused by increased rainfall, a product of climate change, also remains a threat, but at a low level for now.

► Roads/ Railroads

Very High Threat

In 1999, the Committee inscribed the property onto the List of World Heritage in Danger due to the construction of the unauthorized Estrada do Colono road through the centre of the property. Swift action on the part of the State Party resulted in the cessation of road construction activities and the property was removed from the List of World Heritage in Danger in 2001. Pressure remains from local interests to re-establish this road (SOC report, 2012). While the Brazilian government is opposed to re-opening the road, a proposed Bill 7123/2010 is awaiting a decision by Senate after already having been approved by the House of Representatives. This bill would provide a legal foundation for road construction in federal protected areas by introducing the possibility for “park roads”. The re-opening of the Estrada do Colono would increase disturbance and open the area to poaching and illegal

harvesting (World Heritage Centre / IUCN SOC report, 2014).

Protection and management

Assessing Protection and Management

► Research

Highly Effective

Research in the Park has for many years been encouraged by the provision of research facilities for guest researchers, both national and foreign. This has resulted in an ever expanding body of research literature relevant to the Park and its resources. (ICMBio, 2012; Mission report, 2008; State Party report, 2010).

► Legal framework and enforcement

Serious Concern

The protected areas of the Property are governed by the national protected area legislation, in particular the federal law “On environmental protection” dating back to 1991 but updated in 2002 and federal law “On specially protected natural areas” of 1995. The first law defines standards for environmental quality (Mission report, 2008). The legal framework for national parks in Brazil does not give Park staff law enforcement powers, which is reserved for the police force.

► Management system

Mostly Effective

The Property is managed by the Chico Mendes Institute, a semi-autonomous body of the
Environment Ministry (Mission report, 2008). The management system in general is effective, though the development of an up-to-date general management plan and a more detailed public use plan, coordinated with Iguazú National Park in Argentinal, continues to lag (Mission report, 2008; State Party report, 2010). A more systematic coordination of management efforts on both sides of the Iguaçu / IguazuRiver could provide significant

added management value (SOC report, 2012).

► Relationships with local people

Some Concern

Relationships with local people have been influenced by various issues. The tourism industry is continually promoting higher levels of tourism while the Park Administration struggles to deal adequately with the current high visitor load (over 1.4 million visitors in 2011). Efforts to distribute visitation more widely to the communities bordering the Park are appreciated by their residents. Ranchers bordering the Park do not appreciate predation of livestock by jaguars and pumas coming out of the Park, and enter into conflict with the Park Administration when they shoot the cats. (Mission Report, 2008)

► Integration into regional and national planning systems

Some Concern

Within the region, positive steps have been taken to set up formal arrangements for the coordination of management with the adjacent Iguazú National Park in Argentina. Nationally the Park is increasingly integrated into planning, especially with respect to proposals for additional dam construction on the Upper Iguazú River. The greatest concern is biological isolation of the Park because agricultural land uses are practiced right up to the Park boundary. Connections to the Atlantic Forest Biome in Argentina are constricted by the “Argentine Peninsula Bottleneck” which is being converted to agriculture (Mission report, 2008).

► Management effectiveness

Mostly Effective

Though no evaluation of management effectiveness has been made available to IUCN, the 2008 Mission Report indicates a generally effective level of management, especially given the very high level of visitation (Mission Report, 2008).

► Implementation of Committee decisions and recommendations

Mostly Effective

While the State Party has attempted to implement Committee decisions and recommendations, progress on some measures has been slow. The establishment of a fully trained ranger corps requires modification of national laws and regulations, which may not be politically viable (SOC report, 2012). Funding for studies of endangered species is not immediately available and will have to be raised over time.

► Boundaries

Mostly Effective

Boundaries are clearly defined and, for the most part, respected.

► Sustainable finance

Data Deficient

The Park attracted 1.4 million visitors in 2011, and some of those funds are used to finance management. Specific details are, however, unavailable.

► Staff training and development

Some Concern

Staffing of the Property is provided by technical staff from the Chico Mendes Institute; Green Rangers from Paraná State Police Force; and outsourced administrative, maintenance, and security personnel. A previous contract with the National Forest Police has lapsed, thereby seriously undercutting the Property’s resource protection efforts (Mission report, 2008).

► Sustainable use

Data Deficient

Data deficient

► Education and interpretation programs

Highly Effective

Regular environmental education programs, supported by the Park Administration, are in effect in communities along the Park boundary. Park School Program supports educators in teaching about the Park. (ICMBio,

2012)

▶ Tourism and interpretation

Some Concern

Tourism management is dominated by concessionaires that run all facilities and programs in the waterfall area. Current levels of visitation (1.4 million in 2011) exceed the capacity of current Park infrastructure. Current marketing efforts to increase visitation even further are thus counterproductive. The Park has a sophisticated interpretation program that includes a visitor center; interpretive signs and brochures; and experienced, certified, and university educated guides. A recent study indicates, however, that interpretive panels are seldom read or understood. (Mission report, 2008; Moreira, 2012)

▶ Monitoring

Highly Effective

The Park’s research station carries out regular monitoring activities that are actively used as inputs to management decisions. (Mission report, 2008; State Party report, 2010)

Overall assessment of protection and management

Mostly Effective

In general, protection and management of the Park is relatively effective within its boundaries, especially considering the high rate of visitation, but the impacts of threats originating outside the site, including biological isolation due to agriculture, livestock grazing, roads and other infrastructure and upstream dams are considerable.

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

Serious Concern

The Park Administration’s management programs seek to minimize external impacts on the Park, but the combined effects of threats located outside the Park, including upstream dams and biological isolation due to agriculture,

livestock grazing, roads and other infrastructure are difficult to address.

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ **One of the largest and most impressive waterfalls in the world**
High Concern
Trend:Stable

Major threats to the exceptional natural beauty of Iguaçu Falls include (1) low water volumes during the beginning of the week because of the weekend closure of the Salto Caixias dam on the upper Iguaçu River; 2) tourism infrastructure that directly impacts the natural setting; and 3) adventure sport water craft on the lower Iguaçu River that impact the natural setting. Studies are underway to document the daily changes in water levels and flow, and their effect on the waterfalls and riverine biota, and will provide the data needed to improve the management of water levels. There is increasing recognition that poorly located tourism infrastructure has impaired the visual integrity of the natural setting, and the development of an updated management plan for the Park is being used as an opportunity to address this critical issue. All of these are positive trends that, if carried to a successful conclusion, should improve the visual integrity of the setting, thereby maintaining the exceptional natural beauty of the Falls. (Mission report, 2008; State Party report 2010).

▶ **Exceptional biodiversity**
Low Concern
Trend:Stable

Recent and ongoing research tends to indicate that, in general, the biological diversity of the Park is being maintained. However, monitoring data on jaguars indicate decreasing numbers in recent years, and significant poaching in recent years by ranchers concerned with the killing of their livestock.
There is serious concern that 1) the riverine biota of the Upper Iguazú River

may be suffering negative impacts due to the alteration of river levels caused by the Salto Caxias Dam; 2) deforestation and agricultural development along the eastern boundary of the Argentinean Park may reduce genetic flows between Argentinean and Brazilian protected areas in this region; and 3) climate change in the region is causing increased rainfall that could potentially cause habitat shifts within the Park. However, in each of these cases there is not enough research to corroborate these hypotheses. (Mission report, 2008; State Party report 2010; State Party (Argentina) report, 2012).

Summary of the Values

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

High Concern

Trend: Stable

The natural beauty of the Iguaçu waterfalls is being negatively impacted from unnatural changes in river levels and tourism. Studies tend to indicate that biodiversity is being conserved with a few notable exceptions. Concern remains with regard to declining jaguar populations, unnatural alterations in water levels of the Upper Iguaçu River, biological isolation, and potential habitat shifts caused by climate change.

Additional information

Key conservation issues

▶ **Biological isolation**

Regional

The Park is surrounded by agricultural lands on the Brazilian side of the river, and connection to remnants of the Atlantic Forest Biome in Argentina is constricted by habitat degradation in the “Argentine Peninsula Bottleneck”

▶ **Deterioration of scenic values**

Local

Deterioration of the natural scenery by low waterfall volumes, and the negative impacts of poorly planned tourism infrastructure and inappropriate adventure recreational activities.

▶ **Habitat modification and fragmentation**

Regional

Modification of riverine habitats from unnatural variation in river levels caused by upstream dams, and habitat destruction on the boundary of the Park in Argentina that will impede genetic flows between protected areas in the region.

Benefits

Understanding Benefits

▶ **Is the protected area valued for its nature conservation?, Does management of the site provide jobs (e.g. for managers or rangers)?**

Iguaçu National Park of Brazil together with the contiguous Iguazú National Park in Argentina constitute the largest single protected area of the Atlantic Forest biome, which is one of the most threatened biomes of South America.

▶ **History and tradition, Sacred natural sites or landscapes**

The waterfalls of Iguaçu National Park are one of the major tourist attractions in South America and attract nearly 1.4 million national and international visitors each year, which results in a major tourist industry with its many multiplier effects throughout the economy.

Summary of benefits

The conservation and tourism values of Iguaçu National Park are enormous and are well known throughout the world. It is truly a natural icon on a global scale.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	N.A.		N.A.

Compilation of potential site needs

№	Site need title	Brief description of potential site needs	Support needed for following years
1	N.A.	N.A.	

REFERENCES

№	References
1	Exame.com, 2012. Parque Nacional do Iguaçu bate recorde de visitantes. http://exame.abril.com.br/economia/brasil/noticias/parque-n….