IUCN Conservation Outlook Assessment 2017 **(archived)**
Finalised on 09 November 2017

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

Iguazú National Park

SITE INFORMATION

Country:
Argentina
Inscribed in: 1984
Criteria:
(vii) (x)

Site description:
The semicircular waterfall at the heart of this site is some 80 m high and 2,700 m in diameter and is situated on a basaltic line spanning the border between Argentina and Brazil. Made up of many cascades producing vast sprays of water, it is one of the most spectacular waterfalls in the world. The surrounding subtropical rainforest has over 2,000 species of vascular plants and is home to the typical wildlife of the region: tapirs, giant anteaters, howler monkeys, ocelots, jaguars and caymans. © UNESCO

SUMMARY

2017 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, invasive species, hunting, logging, water pollition, 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 and other human-related threats, relatively little can currently be done to reduce or mitigate threats originating outside the Park, including biological isolation, the effects of existing dams and climate change

Current state and trend of VALUES

High Concern
Trend: Stable

The natural beauty of the Iguazú waterfalls is being negatively impacted from unnatural changes in river levels, tourism infrastructure, and recreational activities. Studies conducted to date on the site’s biodiversity tend to indicate it is being conserved. Concern remains, however, with regard to possible negative environmental effects of unnatural shifts in water levels of the Upper Iguazú River, habitat degradation along the eastern Park boundary, and potential habitat shifts caused by climate change.

Overall THREATS

High Threat

Current high level threats from hunting, invasive species, logging, fishing, climate change, tourism infrastructure and activities, habitat degradation

specially on the eastern boundary, water-borne pollutants and dams on the Upper Iguazú River, in particular the ongoing construction of the Baixo Iguaçu dam in close proximity to the contiguous World Heritage property of Iguaçu National Park in Brazil, remain a significant concern. Political and economic pressure to asphalt the section of Ruta Nacional 101 that runs within the site, would generate negative impacts due to greater pressure on flora and fauna and the impacts on landscape and aesthetic values.

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, and the increasing contribution of research and monitoring to management decisions is a good sign for even better management effectiveness in the future. However, 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. The new Iguazú National Park Management Plan 2017 – 2022 is a useful tool to guide the protection and management of the Park. Joint actions with the Iguaçu National Park in Brazil, including joint patrolling, planning and training will improve the management of both World Heritage sites.

FULL ASSESSMENT

Description of values

Values

World Heritage values

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

  Iguazú National Park and its sister World Heritage property Iguaçu National Park in Brazil conserve one of the largest and most spectacular waterfalls in the world 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 (WHC, 2013).

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

  Iguazú National Park, together with the contiguous World Heritage property of Iguaçu National Park in Brazil 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 (WHC, 2013).

Assessment information

Threats

Current Threats

High Threat

The high levels of threat from hunting, invasive species, logging, fishing, climate change and water-borne pollutants are of some concern. Existing dams on the upper Iguazú River, and in particular the ongoing construction of the Baixo Iguaçu dam in close proximity to the boundaries of the contiguous Iguaçu National Park World Heritage Site in Brazil are the most pressing current concern.

► Hunting (commercial/subsistence)

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

Hunting for subsistence, commercial and recreational purposes is one of the main threats reported at the PNI Management Plan that includes programs and projects to cut down hunting inside the Park and its surroundings (APN, 2017)

► Logging/ Wood Harvesting

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

Harvesting trees for timber is one of the main threats on the eastern boundary of the Park, the northern area close to the Iguazú river and in the South corner (APN, 2017).

► Tourism/ visitors/ recreation

High Threat

Inside site, localised(<5%)

Visitors numbers have increased up to 1,170.000 in 2016. On a regular day the Park receives between 2.500 and 3.500 visitors with peaks during the summer season, Easter and winter vacations. The Parque Nacional de Iguazú Management Plan includes a program and projects to address the visitors and infrastructure needs (APN, 2017).

► Invasive Non-Native/ Alien Species

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

The PNI Management Plan reports 130 exotic plants species including 13 invasive plant species, as well as 3 exotic fish species identified in the upper Iguazú river (Coptodon rendalli, Geophagus brasiliensis, Oreochromis niloticus) and one in the lower Iguazú (Clarias gariepinus). The Management Plan includes programs and projects to decrease invasive species presence inside the Park (APN, 2017).

► Livestock Farming / Grazing

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

When seen at a regional scale, there is an area on the eastern boundary of the Park called the “Argentine Peninsula Bottleneck” that is a barrier to genetic flows between the Brazilian and Argentinean National Parks. In the last decades this area has been settled by colonists who have continued over the years to deforest the area for agricultural development and the rearing of livestock. Projects that seek to slow the rate of deforestation have only had marginal success (IUCN and UNESCO, 2008; WHC, 2010; WHC, 2012; UNESCO, 2012).

► Tourism/ visitors/ recreation

Low Threat
Inside site, localised(<5%)

Tourism infrastructure has led to an impairment of natural aesthetic values. For visitors, the most prominent and direct intrusions of infrastructure on the

visual integrity of the waterfalls are: i) the Sheraton Iguazú Hotel, the old unused walkways to the Garganta del Diablo (Argentina) and the Porto Canoas Restaurant and Souvenir Shop located the edge of the falls the Naipi Souvenir Shop and
elevator, from the lip of the canyon to the elevated walkways to the Santa María falls and the Hotel das Cataratas (Brazil) (IUCN and UNESCO, 2008). Visitor facilities and trails also have had an impact on vegetation and wildlife in the waterfall area, which holds the greatest biodiversity and highest number of endemic species.

► Household Sewage/ Urban Waste Water

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

Water-borne sewage and waste water from tourism infrastructure is reported by the PNI Management Plan as a threat. The water quality has been improving; however, sewage management system still needs to be improved (APN, 2017).

► Agricultural effluents

Data Deficient
Inside site, extent of threat not known
Outside site

Water-borne pollutants from agriculture and silviculture in the surroundings of the site include nutrients, toxic chemicals and sedimentss (APN, 2017). However, no detailed information is available regarding specific pollutants and their potential impacts on the site’s values.

► Habitat Shifting/ Alteration

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

The PNI Management Plan reports an increase in rainfalls and temperatures especially during spring and winter, as well as extraordinary floods. Affectation of sensitive species like the amphibians and changes in the forest composition and physiognomy are expected (APN, 2017)

► Dams/ Water Management or Use

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

The dams located on the Iguazú river in the Brazilian side have considerably altered the rate and periodicity of flow of water that feeds the waterfalls. The decreased flow damages the aesthetics of the waterfalls. The unnatural fluctuation in water levels and rates of flow also affect riverine flora and fauna, though the specifics are unknown. The fact that the river downstream from the dams flows in large part through protected areas contributes significantly to the attenuation of any potentially negative impacts on water quality and flow (IUCN and UNESCO, 2008; WHC, 2010; WHC, 2012; UNESCO, 2012).
A new hydroelectric project, the Baixo Iguaçu, has recently been approved in Brazil and the construction of the dam has been ongoing. The Environmental Installation License for the project, issued on August 2015, contained a number of obligations that must be fulfilled by the operator in order to mitigate potential negative impacts. (State Party of Brazil, 2016). However, it is unclear whether a specific assessment of all potential impacts of the construction and operation of the dam, including the integrity of the Iguazú National Park in Argentina, has been conducted, as recommended by the IUCN mission (IUCN, 2016).

Potential Threats

High Threat

Political and economic pressure to asphalt the section of Ruta Nacional 101 that runs within the site would generate negative impacts fur to greater pressure on flora and fauna and the impacts on landscape and aesthetic values,

► Roads/ Railroads

High Threat
Inside site, scattered(5-15%)
Outside site

There is a concern regarding political and economic pressure to asphalt the Ruta Nacional 101 within the PNI, which will generate negative impacts due

to greater pressure on flora and fauna and impacts on landscape values with increased dust, noise, trampling, garbage and illegal extractive activities of flora and fauna, among other potential impacts (APN, 2017).

Protection and management

Assessing Protection and Management

► Relationships with local people

Mostly Effective

In general relationships with local people are positive, though minor occasional disagreements with the tourism industry and agricultural communities along the eastern boundary of the Park (IUCN and UNESCO, 2008)

► Legal framework

Mostly Effective

Relatively complete and effective.

► Enforcement

Some Concern

Hunting, logging, collection of terrestrial plants and fishing are the greatest enforcement problem.
In terms of control and surveillance, the Park organizes patrols every week, covering a significant area of the property. Joint patrols with the Iguaçu National Park rangers, by land and water, are also being undertaken (State Party of Argentina, 2015).

► Integration into regional and national planning systems

Mostly Effective

A Memorandum of Understanding was signed in 2016 between Argentina and Brazil regarding the two adjoining national parks and World Heritage sites of Iguazú and Iguaçu. Effective cooperation has been established between the two protected areas at operational level. Join patrol activities by land and

water are taking place since 2015 (State Party of Argentina, 2015). Additionally, the creation in 1995 of the Tri National Corridor that connects the main protected areas in the Atlantic Forest Ecoregion including Paraguay, Argentina and Brazil, and the development of the Ecoregional Action Plan, a regional planning tool that promotes landscape connectivity among the three countries; are key efforts to promote the Park integration into regional planning systems (APN, 2017).

► Management system

Highly Effective

The World Heritage site consists of a National Park of 492 km² and a nature reserve of 63 km². Both the park and reserve are included in the property, and both are vested in the national government and managed by the National Parks Administration (IUCN and UNESCO, 2008; WHC, 2010; WHC, 2012; UNESCO, 2012). The Iguazú National Park draft Management Plan 2017 – 2022 provides clear guidelines for the Park administrative and technical management. Staff from the Iguaçu National Park in Brazil took part on the planning and preparation of the PNI Management Plan (APN, 2017).

► Management effectiveness

Mostly Effective

In 2006 a study of management effectiveness was conducted and management effectiveness had previously been positively assessed (IUCN and UNESCO, 2008; WHC, 2010; WHC, 2012; UNESCO, 2012). The PNI Management Plan includes activities to assess the management effectiveness of the Park (APN, 2017)

► Implementation of Committee decisions and recommendations

Highly Effective

Most Committee decisions have been or are in the process of being addressed (IUCN and UNESCO, 2008; WHC, 2010; WHC, 2012; UNESCO, 2012).

► Boundaries

Mostly Effective

While overall the boundaries of the site are adequate, the eastern boundary is problematic. While projects have been undertaken to reduce deforestation and agriculture in the “Argentine Peninsula Bottleneck” area that is critical for genetic flows between the Brazilian and Argentinean Parks, success has been limited (IUCN and UNESCO, 2008; WHC, 2010; WHC, 2012; UNESCO, 2012).

► Sustainable finance

Mostly Effective

The Park receives more than one million visitors/year, and revenues from tourism finance management activities at Iguazú as well as at other less-visited protected areas.
Since 2008 the PNI budget has increased significantly, obtaining budget allocations from its own resources and from the National Treasure, with an acceptable level of budgetary execution (APN, 2017).

► Staff training and development

Highly Effective

Argentina’s regular 8 month Ranger training courses and additional specialized training events assures that Ranger staff are formally trained. Management level staff consist of Rangers who have had wide field experience and advanced specialized courses. Recent sharing of experience between Brazilian and Argentinean Park Staff has also benefited staff development (IUCN and UNESCO, 2008; WHC, 2010; WHC, 2012; UNESCO, 2012).

► Sustainable use

Some Concern

Current uses of the Park, including conservation, research, and education appear to be sustainable. However, studies that would help to document this preliminary conclusion are still on-going. There is some concern about the impacts of tourism infrastructure. Illegal extraction of wild species is of concern. (IUCN and UNESCO, 2008; WHC, 2010; WHC, 2012; UNESCO, 2012).

► Education and interpretation programs

Mostly Effective

The Park relaunched its campaign of communication not only within the protected area but also in the city of Puerto iguazú, spreading an environmental education message through a variety of promotional materials (posters, flyers, banners, audiovisuals, radio and other audio) for knowledge and awareness raising (State Party of Argentina, 2015).
The PNI Management Plan has a project that aims to develop an environmental education and interpretation plan for the Park (APN, 2017).

► Tourism and visitation management

Some Concern

Tourism management is dominated by two concessionaires that run all facilities and programmes in the waterfall area. Additionally the Park has given 78 tourist services licenses to other business including 3 transport service companies. The Park offers tourist guide services provided by independent professionals registered by the Park (APN, 2017).

The Park has a sophisticated interpretation program that includes a visitor center; interpretive signs and brochures; and experienced guides (IUCN and UNESCO, 2008; WHC, 2010; WHC, 2012; UNESCO, 2012).

In 2013 the Old Cataratas Hotel was inaugurated which became the alternative visitor centre, allowing to move Public Use and Chief Ranger offices, from the city of Puerto Iguazu to the National Park. In July 2015 new walkways were opened comprised of about 600 m facilitates, improving the flow of visitors and allowing a different view of the falls (State Party of Argentina, 2015).

► Monitoring

Highly Effective

The Park’s research station carries out regular monitoring activities that are actively used as inputs to management decisions decisions (IUCN and UNESCO, 2008; WHC, 2010; WHC, 2012; UNESCO, 2012).

► Research

Highly Effective

Research in the Park has for many years been encouraged, and 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 (IUCN and UNESCO, 2008; WHC, 2010; WHC, 2012; UNESCO, 2012).
In 2015, 26 research authorizations were given, including a number of new projects. The Park supported a fish inventory and a research on jaguar. The park is also updating the Vertebrate Species of Special Value (EVVE) to identify species of conservation importance, directing efforts for their protection, monitoring, enforcement and research (State Party of Argentina, 2015).

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, and the increasing contribution of research and monitoring to management decisions is a good sign for even better management effectiveness in the future. However, 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. The new Iguazú National Park Management Plan 2017 – 2022 is a useful tool to guide the protection and management of the Park. Joint actions with the Iguaçu National Park in Brazil, including joint patrolling, planning and training will improve the management of both World Heritage sites.

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

Serious Concern

The dams on the Upper Iguazú River are the greatest threat outside the site. Habitat conversion along the eastern boundary is the second largest outside threat. Projects designed to slow the rate of conversion have had only

marginal success so far (IUCN and UNESCO, 2008; WHC, 2010; WHC, 2012; UNESCO, 2012).

► **Best practice examples**

Best practice examples include 1) world class development and operation of major visitor facilities in the waterfall area by a private concessionaire, 2) research and monitoring through the Park Research Center; and 3) emergency preparedness plans for visitor safety in the waterfall area concession.

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

The major threats to the exceptional natural beauty of Iguazú Falls include:

1) low water volumes during certain periods due to the operation of dams on the upper Iguazú River;
2) the ongoing construction of the Baixo Iguaçu dam in close proximity to the boundaries of the contiguous Iguaçu National Park World Heritage Site in Brazil, and it´s potential related environmental impacts to the Park;

3) tourism infrastructure that directly impacts the natural setting; and 4) adventure sport water craft on the lower Iguazú River that impact the natural setting (IUCN and UNESCO, 2008; WHC, 2010; WHC, 2012; UNESCO, 2012; APN, 2017).

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

Recent and ongoing research tends to indicate that the biological diversity of the site is being maintained.
The Iguazú Falls' Canyon is the most biodiverse and environmentally sensitive area of the Park. It is also the area of the Park that receives mnore than 1 million visitors each year. While there is little research to provide specifics, it appears that infrastructure developed to guide visitors to the best viewpoints and surrounding Atlantic Forest environments have been relatively effective in minimizing damage.
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 dams on the Iguazu River; 2) deforestation and agricultural development along the eastern boundary of the Park may reduce genetic flows between protected areas in this region; and 3) climate change in the Iguazú region is causing increased rainfall and temperatures that could potentially cause habitat shifts within the Park; 4) hunting, logging, harvesting of terrestrial plants and fishing in the Park and its surroundings is a major threat reported in the PNI Management Plan (IUCN and UNESCO, 2008; WHC, 2010; WHC, 2012; UNESCO, 2012; APN, 2017).

Summary of the Values

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

High Concern

Trend: Stable

The natural beauty of the Iguazú waterfalls is being negatively impacted from unnatural changes in river levels, tourism infrastructure, and recreational activities. Studies conducted to date on the site's biodiversity tend to indicate it is being conserved. Concern remains, however, with regard to possible negative environmental effects of unnatural shifts in water levels of the Upper Iguazú River, habitat degradation along the eastern Park boundary, and potential habitat shifts caused by climate change.

Additional information

Benefits

Understanding Benefits

▶ **Outdoor recreation and tourism**

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

▶ **History and tradition, Wilderness and iconic features, Sacred natural sites or landscapes**

The Iguazú Falls are a sacred site for the Guaraní Indigenous Community that is native to the region. Community members are allowed to practice traditional rituals on San Martin Island, but no human settlements are allowed within the Park.

Summary of benefits

The conservation and tourism values of Iguazú National Park are enormous and are well known throughout the world. It is truly a natural icon on a global scale. The cultural and spiritual values of the Park are significant to the Guaraní Indigenous Community, but are relatively unknown outside of it.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	WWF Brazil, WWF Paraguay and Fundación Vida Silvestre Argentina (WWF associate in Argentina)		Ecoregional Action Plan (2014 – 2018) established a vision that states that by 2020, the Upper Parana and Serra do Mar ecoregions will maintain landscapes that guarantee the conservation of biodiversity, functioning corridors, and environmental services, providing equitable economic and social development for local people.

Compilation of potential site needs

№	Site need title	Brief description of potential site needs	Support needed for following years
1	N.A.	Development of an evaluation of management effectiveness of the Iguazú World Heritage Site using the methods developed through the “Enhancing our Heritage” project.	
2	Research funding	Development of a research fund to address research needs to support critical management decisions for Iguazú National Park.	
3	Patrols	Joint patrols should be promoted with a regular frequency aiming to improve law enforcement and reduce hunting, logging, terrestrial plants harvesting and fishing.	

REFERENCES

№	References
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