Garamba National Park

2020 Conservation Outlook Assessment

SITE INFORMATION

Country: Democratic Republic of the Congo

Inscribed in: 1980 Criteria: (vii) (x)



The park's immense savannahs, grasslands and woodlands, interspersed with gallery forests along the river banks and the swampy depressions, are home to four large mammals: the elephant, giraffe, hippopotamus and above all the white rhinoceros. Though much larger than the black rhino, it is harmless; only some 30 individuals remain. © UNESCO

SUMMARY

2020 Conservation Outlook

Finalised on 02 Dec 2020

CRITICAL

The outlook for Garamba National Park remains uncertain and its conservation status is still considered critical, however its trajectory is much more positive in recent years. Over the last decades, regional insecurity and criminal networks associated with the international trade in rhino horn and ivory have had a devastating impact on the property. By 2016 the park had lost all of its northern white rhinos, 95% of its elephants, most of its Kordofan giraffe and an estimated 80-90% of other large mammals. Since 2005 the park has been managed under a Public-Private-Partnership (PPP) arrangement by African Parks Network (APN). The first twelve years under APN management was a period of enormous challenges associated with widespread insecurity perpetrated by the rebel Lord's Resistance Army (LRA), and other armed forces. More recent improvements in the regional security situation enabled a major change in law enforcement strategy and strengthening of security measures since May 2014. Significant efforts by APN have resulted in greatly increased levels of aerial surveillance, the strengthening and re-equipping of the ranger force, development of necessary park infrastructure and a strategic emphasis on ranger mobility, rapid deployment capability and use of intelligence information. Anti-poaching efforts have increased and elephant poaching has significantly decreased in recent years to 8 carcasses in 2019. Whilst this decrease in poaching is a hopefully encouraging shift after many years of significant pressures on Garamba's species, the concern still remains that elephant poaching has not been fully eradicated, and the population of critically endangered Kordofan giraffe is growing but remains critically low (62 individuals), and the current status of the elephant population remains unclear but low in recent years (1,200 in 2017). Strong anti-poaching, security enforcement and conservation efforts must be proactively continued to ensure the full eradication of poaching in the site, as well as the recovery, monitoring, protection and ongoing management of Garamba's key emblematic species over the longer term. Further continued strengthening of management measures in the next years will be important, including the designation of a formal buffer zone, implementation of management plans, as well as the continued addressing of potential threats from outside the site, to ensure

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the protection and recovery of Garamba National Park as the last stronghold for the largest population of elephants and the last remaining Kordofan giraffe in the DRC.

FULL ASSESSMENT

Description of values

Values

World Heritage values

► Large expanse of guinea savannahs with the potential to support an exceptionally high large mammal biomass

Criterion:(vii)

This is a vast, gently undulating expanse of guinea savannahs and open woodlands with a dense network of permanent water sources and streams feeding into the Congo catchment (the northern boundary of the park follows the Congo-Nile divide). The abundance of permanent water means that plant productivity is high and can support an exceptionally high biomass of large herbivores. At certain times of the year (May/June) large numbers of elephant move into the park from the surrounding buffer zones (Hunting Domains). Groups of over 500 individuals have been recorded in times past (World Heritage Committee, 2012).

► Geographic location within the transition zone between two bio-geographically important centres of endemism (Guinean-Congo and Guinean-Sudanese)

Criterion:(x)

By virtue of its location in the transition zone between two centres of endemism the park and its buffer zones harbor species typical of both the savannah and dense humid forest ecosystems. This transition zone is poorly represented within protected areas elsewhere. Typically savannah species include the Kordofan giraffe (Giraffa camelopardalis antiquorum) (D'haen et al., 2019, Fennessy et al., 2016), African forest elephant and savannah elephant (Mondol et al., 2015), African buffalo (Syncerus caffer, both forest and savannah forms), Northern lion (Panthera leo leo), spotted hyena (Crocuta crocuta), Lelwel's hartebeest (Alcelaphus buselaphus lelwel), roan antelope (Hippotragus equinus bakeri), Ugandan kob (Kobus kob thomasi), waterbuck (Kobus ellipsyprimnus defassa), reedbuck (Redunca redunca cottoni) and oribi (Ourebia ourebi). Large numbers or hippos (Hippopotamus amphibius) are also present.

Typically dense humid forest species include giant forest hog (Hylochoerus meinertzhageni), blue duiker (Philantomba monticola), red-flanked duiker (Cephalophus rufilatus), yellow backed duiker (C. silvicultor), chimpanzee (Pan troglodytes schweinfurthi), and 5 species of small diurnal primates: black and white colobus (Colobus guereza occidentalis), De Brazza monkey (Cercopithecus neglectus) and the red-tailed monkey (Cercopithecus ascanius) (IUCN Evaluation). For other species noted at the time of inscription, Bongo (Tragelaphus euryceros) are expected to occur, red colobus (Piliocolobus oustaleti oustaleti) and agile mangeby (Cercocebus agilis) have not been observed in the last 5-10 years and possibly still exist, and water chevrotain has been recently discovered in Garamba (IUCN Consultation, 2020).

► Presence of emblematic, endangered and/or endemic mammal species

Criterion:(x)

The park's most important emblematic species was the northern white rhino (Ceratotherium simum cottoni), however no individuals have been seen since 2008 (State Party of the DRC, 2020) and the subspecies is considered to be extinct in the wild. It was the world's last remaining population in the wild.

The Kordofan giraffe (Giraffa camelopardalis antiquorum) is endemic to the DRC: as the DRC's only giraffe population, numbers were reported at 55 individuals in early 2020 (State Party SOC 2020; AP website 2020) and 62 in the 2020 census (IUCN Consultation, 2020) compared to previous estimates of

40-50 individuals located in the south of the park, and in the southern buffer zone (Gangala na Bodio Hunting Domain) (ICCN, 2010; UNESCO and IUCN, 2016; UNESCO, 2017).

Elephant: this is the DRC's largest remaining population of elephants within a protected area (and one of the largest in Central Africa) and is unique in being an inter-grade between forest and savannah types (ICCN, 2010). The most recent 2017 count estimated a population of around 1,200 individuals (UNESCO, 2019). They range widely over the park and its 3 surrounding buffer zones (Hunting Domains) (Antonínová, 2010).

Eastern chimpanzees (Pan troglodytes schweinfurthi): these are known to still occur in the gallery forests in the eastern buffer zone, but there is insufficient data on the distribution and the size of different subpopulations in and around the park (African Parks, 2011).

Assessment information

Threats

Current Threats Very High Threat

Over the past 50 years, commercial hunting has resulted in significant declines of all wildlife populations in the site (ICCN, 2010; UNESCO and IUCN, 2016). At least 2,000 elephants were killed illegally between 2007 and 2012, reducing the population to around 1,700 individuals by that time (from 22,000 in 1976). Most elephant poaching (75-80%) is now being carried out by people entering the park from South Sudan. In addition, there have been four known incidents of mass killings of elephants from a helicopter, accounting for the deaths of 50 elephants between March 2012 and August 2015 (Mission Report, 2016). At the time of the last reactive monitoring mission (March 2016) the LRA was thought to be financing its operations through the sale of poached ivory, which probably accounted for around 10-15% of elephant poaching in the Garamba complex. The incidence of poaching for bushmeat by members of local communities is thought to be relatively limited, probably accounting for no more than 5% of total poaching incidents.

In recent years, anti-poaching measures have been strengthened between ICCN, African Parks, FARDC and local authorities, and surveillance coverage in 2019 has increased to around two thirds of the property and one third of the Hunting Areas, and 100% by aerial surveillance. Elephant poaching is reported to have progressively declined since aerial surveillance began in 2014 (50 in 2017 to 8 in 2019) and no poaching of Kordoffan giraffes was recorded in 2017 or 2018. Whilst the recent decrease in elephant poaching is a hopefully encouraging shift after the many years of significant pressure on these species, a high level of concern still remains since elephant poaching has not been fully eradicated, the seizure of illegally poached goods continues, the populations of Kordofan giraffe remain critically low (62 individuals), and the current status of the elephant population remains unclear but at a low in recent years (1,200 in 2017).

Strong anti-poaching efforts must be proactively continued to ensure both the full eradication of poaching in the site, and the recovery of the key species of Garamba as the last stronghold for the largest population of elephants and the last remaining Kordofan giraffe in the DRC.

► Mining/ Quarrying

(Gold panning in the buffer zone)

Low Threat
Outside site

Artisanal mining for gold became a major economic activity in parts of the southern half of Gangala Na Bodio and much of Mondo Missa Hunting Areas over the past decade or so (since liberalisation of the mining sector in 2004). It attracted many thousands of people and resulted in extensive destruction of woodlands and gallery forests, as well as development of large permanent settlements in the Hunting Areas (UNESCO and IUCN, 2016). As a result, low levels of poaching inside the park have occurred as a direct result of the presence of these mining camps (Aveling, 2010).

In 2019, a Ministerial Decree (No. 0532 / CAB.MIN / MINES / 01/2019 of August 23, 2019) was passed to cease gold panning activities in the Gangala Na Bodio and Mondo Missa Hunting Areas, which includes a

6-month moratorium for illegal operators to evacuate the sites (State Party of the DRC, 2020). This measure will contribute to ensuring that this threat is addressed, reduced and elliminated going forward.

► War, Civil Unrest/ Military Exercises

Low Threat

(Presence of armed militia)

Inside site, extent of threat not known
Outside site

For more than a decade the park and its surrounding buffer zones were used as a cover by the Lord's Resistance Army (LRA) (a rebel group originating in Uganda). This armed militia wreaked havoc amongst local communities and destroyed the park headquarters at Nagero in January 2009 (with the loss of 10 lives), but subsequently became increasingly fragmented and dispersed (Titeca and Costeur, 2015). By the time of the last UNESCO/IUCN Reactive Monitoring mission in 2016, they had mostly moved away from areas previously occupied in the park and Azande Hunting Area into the south-eastern areas of CAR (UNESCO and IUCN, 2016). For some time, personnel of the government's Armed Forces of the Democratic Republic of Congo (FARDC) who were tasked with driving out remaining elements of LRA and improving security, were also contributing to the escalation of poaching (Titeca, 2013). Measures have subsequently been taken to ensure that FARDC are no longer a threat to the park (UNESCO and IUCN, 2016; UNESCO, 2017). As a result of increased actions, the LRA have now been chased of the property, however minor issues with local poachers, South sudanese poachers, Mbororo and other armed groups persist (IUCN Consultation, 2020). Recent reports note that armed conflicts have been caused by a mixture of groups, including the LRA, but also South Sudanese rebels, local poachers, FARDC, Mbororo, etc. (Titeca and Edmond, 2019). In 2020, anti-poaching collaborations between ICCN, African Parks, FARDC and local authorities have been further strengthened and FARDC forces support surveillance efforts in and around the site (State Party of the DRC, 2020). As a result of a combination of strong efforts by African Park's and relative calm in South Sudan, Garamba is currently experiencing low levels of insecurity, although it is likely that the stability may only be temporary and therefore insecurity remains a potential future threat (IUCN Consultation, 2020).

▶ Hunting and trapping

Very High Threat

(Illegal commercial hunting)

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

Illegal commercial hunting over the past 45 years has resulted in significant declines of all wildlife populations in the site (ICCN, 2010; UNESCO and IUCN, 2016; Titeca et al., 2020). At least 2,000 elephants were killed illegally between 2007 and 2012, reducing the population to around 1,700 individuals by that time (from 22,000 in 1976). Most elephant poaching (75-80%) is now being carried out by people entering the park from South Sudan. In addition, there were four known incidents of mass killings of elephants from a helicopter, accounting for the deaths of 50 elephants between March 2012 and August 2015 (UNESCO and IUCN, 2016). At the time of the last reactive monitoring mission (March 2016) the LRA was thought to be financing its operations through the sale of poached ivory, which probably accounted for around 10-15% of elephant poaching in the Garamba complex. LRA operatives were known to be collaborating in elephant poaching with Mbororo peoples (transhumant pastoralists) and others from further afield (including Janjaweed horsemen from Sudan), particularly in the western parts of the park and Azande Hunting Area (UNESCO and IUCN, 2016; Titeca and Edmond, 2019). However, it is also noted that regarding commercial poachers from South Sudan, the SPLA and SPLA.io elements have constituted a major threat (Titeca and Edmond, 2019).

In recent years, collaboration on anti-poaching measures has been strengthened between ICCN, African Parks, FARDC and local authorities. In 2019, 90 FARDC elements were placed under the command of the Park for strategic and operational collaboration, eco-guard numbers increased from 243 to 286 (238 eco-guards and 48 security guards) and patrols increased from 447 (2018) to 630 (2019) resulting in arrests and seizure of ivory, wildlife and weapons. Also, surveillance coverage has increased to 68% of the property and 32% of the Hunting Areas, with 100% covered by aerial surveillance. Furthermore, a new canine unit will be operational during 2020 to detect illegal activities (State Party of the DRC, 2020). Elephant poaching is reported to have progressively declined since aerial surveillance began in 2014 (Mission report, 2016), from 131 carcasses recorded in 2014, to 50 in 2017, to 8 in 2019 (State Party of the DRC, 2020). Furthermore, no poaching of Kordoffan giraffes was recorded in 2017 or 2018 (State Party of the DRC, 2020). Whilst the recent decrease in elephant poaching is a hopefully encouraging

shift after the many years of significant pressure on these species, a concern remains since elephant poaching has not been fully eradicated, the seizure of illegally poached goods continues, and populations of Kordofan giraffe remain critically low and the current status of the elephant population remains unclear. Anti-poaching efforts must be proactively continued to ensure both the full eradication of poaching in the site, and the recovery of key species.

Potential Threats Low Threat

Although the park itself is unaffected by settlement, tree-cutting or cultivation, parts of Gangala na Bodio and Mondo Missa Hunting Areas are coming under increasing pressure from settlers. An estimated 50,000 people live within the two Hunting Areas and adjacent towns of Dungu and Faradje. Areas of these hunting areas that lie immediately adjacent to the park (to the north of the main road connecting these towns) remains relatively pristine as does the whole of Azande Hunting Area and the western part of Mondo Missa bordering the park. It is important that these areas are secured and protected within a formally-recognised Buffer Zone (UNESCO and IUCN, 2016).

► Mining/ Quarrying

(Gold panning spreading into the park)

Low Threat
Outside site

Whilst gold panning remains active in Hunting Areas surrounding the property, a potential risk remains for this to spread into the World Heritage site.

► Logging/ Wood Harvesting

(Settlement, tree cutting and cultivation)

Low Threat
Outside site

Although the park itself is unaffected by settlement, tree-cutting or cultivation, parts of Gangala na Bodio and Mondo Missa Hunting Areas are coming under increasing pressure from settlers. An estimated 50,000 people live within the two Hunting Areas and adjacent towns of Dungu and Faradje. Areas of these hunting areas that lie immediately adjacent to the park (to the north of the main road connecting these towns) remains relatively pristine as does the whole of Azande Hunting Area and the western part of Mondo Missa bordering the park. It is important that these areas are secured and protected within a formally-recognised Buffer Zone (UNESCO and IUCN, 2016). In 2020, the buffer zone remains to be formalised and the Land Use Plan for the Hunting Estate (initiated in 2017) remains to be finalised (State Party of the DRC, 2020).

► War, Civil Unrest/ Military Exercises (Refugees)

Low Threat

Inside site, localised(<5%)
Outside site

In late 2017, the reported establishment of two refugee camps just 15 km from the property, to accommodate up to 20,000 people, raised significant concerns and led the World Heritage Committee to request the relocation of the camps to outside the property and its buffer zone in order to reduce the already strong pressures on the natural resources of the property, particularly through poaching (UNESCO, 2018). In May 2019, the government reported that interventions by UNESCO and the European Union with UNHCR resulted in the interruption of camp development and identification of a new location 35 km away from the property (UNESCO, 2019). No further issues have been reported since, however the continued instability in the region means this may remain a potential threat to the property in future.

▶ War, Civil Unrest/ Military Exercises

High Threat

(Presence of armed militia)

Inside site, not applicable

A combination of strong efforts by African Parks and relative calm in South Sudan has resulted in Garamba currently experiencing lower levels of insecurity, however it is likely that this stability is only temporary (IUCN Consultation, 2020), and recognising the history of significant impacts by armed militia on Garamba over past decades (see Threats), insecurity therefore remains a high potential threat to the property.

Overall assessment of threats

Very High Threat

Over the last 25 years, poaching for ivory, rhino horn and bushmeat has resulted in drastic reductions in large herbivore populations. Most of the larger species have suffered an 80-90% reduction in population, while elephants have been reduced by 92% from their 1976 population and the northern white rhino is now considered to be extinct in the wild.

In recent years, anti-poaching measures have been strengthened between ICCN, African Parks, FARDC and local authorities, and surveillance coverage in 2019 has increased to around two thirds of the property and one third of the Hunting Areas, and 100% by aerial surveillance. Elephant poaching is reported to have progressively declined since aerial surveillance began in 2014 (50 in 2017 to 8 in 2019). Whilst this is a hopefully encouraging shift after the many years of significant pressure on these species, a high level of concern still remains since elephant poaching has not been fully eradicated, the seizure of illegally poached goods continues, the populations of Kordofan giraffe remain critically low (62 individuals), and the current status of the elephant population remains unclear but at a historical low in recent years (1,200 in 2017).

Strong anti-poaching efforts must be proactively continued to ensure both the full eradication of poaching in the property, and the recovery of the key species of Garamba as the last stronghold for the largest population of elephants and the last remaining Kordofan giraffe in the DRC.

Artisanal gold panning, land clearance and agricultural settlement in the Hunting Areas may threaten the integrity of the park in the longer term unless these activities can be effectively contained within a formally-designated buffer zone and management measures.

Protection and management

Assessing Protection and Management

▶ Management system

Mostly Effective

The management of Garamba has been under a public-private partnership (PPP) arrangement with African Parks Network since 2005. A new 10-year agreement was signed in January 2016 under which an independent 7-member Board assumes responsibility for management of the park, including the appointment of a park director and assistant park manager. The Board raises necessary funding and a 50% share of tourism profits goes to ICCN/government. A Business Plan was approved for 2016-21, which sets out the strategy and procedures for managing the park. Key tasks are identified in six key areas of park operations, namely Infrastructure, Law Enforcement, Conservation, Research & Monitoring, Community Constituency, Tourism and Revenue Generation, and Finance and Administration. The Business Plan does not indicate the spatial zonation of the park or other parts of the wider Garamba complex (encompassing the three Hunting Areas), to be developed separately. A Land Use Plan for the Hunting Estate was started in 2017 and remains under development (State Party of the DRC, 2020). In 2018, an Integrated Management Plan for the property was reported as being finalised (State Party of the DRC, 2018), however no updates have since been provided (State Party of the DRC, 2019 & 2020). In August 2019, a Ministerial Decree (No. 0532 / CAB.MIN / MINES / 01/2019) was signed to prohibit artisanal exploitation in the hunting areas of Gangala Na Bodio, Azande and Mondo Missa in the province of Haut-Uélé.

In 2016, the approved annual budget for the park was approximately US\$ 3.2 million, with 70% contributed by the European Union and smaller amounts coming from the World Bank, USFWS and American private foundations (Buffett, Bonderman). This represented a shortfall of US\$ 1.1 million over the required US\$ 4.3 million budget, which allows for a stronger ranger force and implementation of various projects as detailed in the park Business Plan (UNESCO and IUCN, 2016). In 2020, funding for

2020-2023 of approximately US\$ 22 million from the EU, World Bank, USAID, UNEP, Wildcat and Kibali Mining was reported (State Party of the DRC, 2020). In 2019, a first meeting on transboundary cooperation was held between ICCN and South Sudan authorities (see Boundaries section).

▶ Effectiveness of management system

Mostly Effective

No formal management effectiveness assessment, using one of the recognized management effectiveness assessment, tools is available. However it is likely that effectiveness is improving progressively thanks to the considerable investments in equipment, infrastructures, human resources and organization that have occurred since African Parks were given the mandate to manage the park in 2005. Law enforcement efforts have been strengthened considerably since the appointment of a new Director and other senior staff in May 2015, staff increases and collaboration between ICCN and FARDC.

► Boundaries Some Concern

The eastern, southern and western boundaries of the park follow large rivers and are therefore clearly recognizable. The northern boundary is the international frontier with Sudan, of which part also forms the southern boundary of Sudan's Lantoto National Park. As mentioned previously, effective protection of the buffer zones is essential to the integrity of the whole ecosystem, and the formal designation of a buffer zone remains to be finalised in response to several World Heritage Committee requests (UNESCO, 2017, 2018, 2019; State Party of the DRC, 2020). The development of a Land Use Plan for the Hunting Estate is underway (State Party of the DRC, 2020). In May 2019, a first meeting on transboundary cooperation was held between ICCN and South Sudan authorities, during which it was agreed that a formal Memorandum of Understanding on transboundary cooperation would be subsequently signed by the two countries (State Party of the DRC, 2020).

► Integration into regional and national planning systems

Some Concern

Wherever possible the park's strategy for support for community development takes into consideration the concerns of local "Collectivités". Development initiatives must be compatible with the conservation objectives of the park. However the park's community development initiatives must be viewed in the context of the enormous development needs of this province, very weak regional planning capacities, widespread poverty, and the general absence of functioning State structures (communications, schooling, health care, justice, etc).

► Relationships with local people

Some Concern

Under the management of African Parks a considerable effort has been made to improve relations with the local communities. The construction of new schools and a hospital has provided surrounding communities with access to education and better healthcare. In a region with little economic opportunity, Garamba employs over 500 full-time local staff with 2,000 more on short-term contracts. Garamba is one of the largest employers in the region with 514 full-time staff, 94% of which are DRC nationals, including law enforcement teams and dedicated community personnel. The growing ranger force provides security to wildlife and tens of thousands of people living around the park. In 2019, over 14,400 members of surrounding communities were provided with access to healthcare services through Garamba's mobile health clinics and hospital (African Parks website, 2020). In 2018, a sustainable development strategy was developed to address matters such as agroecology, illegal gold mining, renewable energy and access to social services, including access to health care for park staff and surrounding communities, and various environmental education activities. A livelihoods survey was carried out in 2019 in the Hunting Areas and the bordering areas, the results of which remain to be published (State Party of the DRC, 2020).

In 2019, after the passing of the Ministerial Decree prohibiting artisanal mining in Gangala, serious tensions with the local population erupted, leading to an overall tense and hostile situation with the local population and making the work of the park more difficult. For example, the surrounding population went on a two-day strike against the park (Oriental Info, 2019). This tense situation continued until early 2020, when consultations between the park and the surrounding communities took

place (IUCN Consultation, 2020).

► Legal framework Some Concern

The PPP management arrangement with APN for Garamba continues to provide a clear and globally adequate legal framework. However, given the complementary nature of the different habitats inside and outside of the park (predominantly open grasslands inside the park, predominantly woodlands in the buffer zones) the importance of the 3 buffer zones (Hunting Domains) to the ecological integrity of the whole ecosystem cannot be overemphasised. The surrounding hunting domains act not only as buffer zone, but more importantly as an area which is seasonally used by elephants. Besides, some species, like the bongo, the chimpanzee and the sitatunga are probably only found in the hunting domains.

The 2019 Ministerial Decree to prohibit artisanal exploitation in several hunting areas shows positive legislative progress, however the formal designation of a buffer zone, as well as a transboundary cooperation agreement with South Sudan, remain to be completed (State Party of the DRC, 2020), in order to further ensure the ecological integrity of the Garamba ecosystem as a whole.

► Law enforcement Some Concern

Law enforcement remains challenging, but efforts have been strengthened considerably in recent years. In 2016, a law enforcement strategy was implemented and surveillance and law enforcement cooperation agreements between ICCN, FARDC and local authorities continue. In 2019, 90 FARDC elements were placed under the command of the Park for strategic and operational collaboration, ecoguard numbers increased from 243 to 286 (238 eco-guards and 48 security guards) and patrols increased from 447 (2018) to 630 (2019) resulting in arrests and seizure of ivory, wildlife and weapons. The same year, 68% of the World Heritage site and 32% of hunting areas were surveilled, with 100% by aerial surveillance. Futhermore, a new canine unit will be operational during 2020 to detect of illegal activities (State Party of the DRC, 2020). The 2019 anti-poaching programme results showed a significant decrease in elephant poaching from 131 carcasses recorded in 2014, to 50 in 2017, and 8 in 2019. Furthermore, no rangers have been killed in 2017 (State Party of the DRC, 2020). These improvements are encouraging, however, it remains concerning that elephant poaching in the site persists whilst current population numbers remain unclear (see Conservation Outlook), as well as the fact that currently two thirds of the property, and only one third of the adjacent hunting grounds are covered by surveillance.

► Implementation of Committee decisions and recommendations

Mostly Effective

Most of the Committee decisions are being implemented within the constraints of the prevailing security situation in the area.

A concerted multinational effort (Congo, Uganda, Sudan, USA, MONUSCO, AU) was made to eliminate the Lord's Resistance Army (LRA), which was largely successful. The involvement of FARDC soldiers in poaching has been stopped. In 2017, the park had established an effective force of ecoguards, and ground surveillance of the entire park, as well as 20% of the adjacent Hunting Areas (State Party of the DRC, 2017).

The park management is actively engaging with illegal gold mining in the buffer zones, focusing on areas that are important for chimpanzees (part of eastern buffer zone). However gold panning remains an issue.

Relations with local communities are improving thanks to concerted efforts by AP to engage with local community leaders and develop outreach activities (health care, schools, road access, employment through HIMO, micro-projects, etc.). Key wildlife populations are being monitored within the constraints of the security situation and an aerial census was planned for April 2017 (UNESCO, 2017), the results of which are awaited. Fifty four elephants as well as a number of giraffe and lions and have been fitted

with GPS collars and there is regular aerial surveillance for the whole park (African Parks website, 2017).

➤ Sustainable use Data Deficient

No resources may be legally extracted from the park so the question of sustainable use is not applicable. Resources currently being illegally exploited in the park are large herbivores and gold. Effective law enforcement is required to deal with both these problems.

➤ Sustainable finance Some Concern

In 2020, funding for 2020-2023 of approximately US\$ 22 million from the EU, World Bank, USAID, UNEP, Wildcat and Kibali Mining was reported (State Party of the DRC, 2020). In February 2020, the Okapi Fund for Nature Conservation in the DRC was officially launched as a new private, legally independent institution, created to provide sustainable funding for the conservation of biodiversity in the DRC, with an initial focus on Garamba and Kahuzi-Biega World Heritage properties (Fonds Okapi, 2020).

Previously, the approved annual budget for the park was approximately US\$ 3.2 million, with 70% contributed by the European Union and smaller amounts coming from the World Bank, USFWS and American private foundations (Buffett, Bonderman). This amount represented a shortfall of US\$ 1.1 million over the required US\$ 4.3 million annual budget, and the park management team considered the budget shortfall to be the principal constraint to effective management of the park. In addition to the park budget an amount of US\$ 10 million of potential EU support was under negotiation at the time of the last monitoring mission to support income-generating activities around the periphery of the park. This might serve to contribute towards the long-term financial sustainability of the park as well as supporting local communities. Revenue from tourism is very small and currently contributes insignificantly to financing park management costs. For the foreseeable future the park will be dependent on international funding agencies.

► Staff capacity, training, and development

Mostly Effective

In line with the new emphasis on law enforcement, capacity is being developed in the ranger force through new recruitment, training and close collaboration with the national army, FARDC and local authorities. In 2019, 90 FARDC elements were placed under the command of the Park for strategic and operational collaboration, eco-guard numbers increased from 243 to 286 (238 eco-guards and 48 security guards), training in first aid administered, and a new canine unit will be operational during 2020 to detect illegal activities (State Party of the DRC, 2020).

► Education and interpretation programs

Mostly Effective

Environmental education programmes take place at schools throughout the region, nature clubs have been set up at schools outside the park, and regular visits of schools to the park are organized by park management.

The 2018 sustainable development strategy addresses various environmental education activities (State Party of the DRC, 2020).

▶ Tourism and visitation management

Some Concern

In 2017, a new tourist lodge was completed and efforts to promote tourism are ongoing. Occasional international groups do visit the park but the current climate of insecurity is a major constraint. However an important local market (>1000 expatriates working for a nearby industrial gold mining complex) is being tapped. An area in the buffer zone where chimpanzees occur is being monitored with a view to habituating them for tourism, in collaboration with the local community.

► Monitoring Mostly Effective

Garamba National Park is one of the few parks in DRC that has long term data on wildlife population trends. Over the past years, monitoring has been seriously hampered due to insecurity in the region, resulting in a lack of systematic monitoring and comparable data. Recent monitoring surveys have provided useful information on population trends, including aerial surveys in 2014 and 2017 (UNESCO, 2017). A 2018 survey was carried out and in 2019, population data for giraffes, antipoaching data, and

an aerial survey of elephants were completed, however no elephant population data has been reported (State Party of the DRC, 2020).

There are indications of a turnaround in Garamba's fortunes: firstly, aerial census results in 2007, 2012 and 2014 suggest that populations of buffalo, hippo, hartebeest, waterbuck and kob are recovering; and secondly, counts of elephant carcasses since intensive aerial surveillance began in 2014 indicate a progressive decline in the numbers of elephants killed (UNESCO and IUCN, 2016), from 131 carsesses recorded in 2014, to 50 in 2017, and 8 in 2019 (State Party of the DRC, 2020).

► Research Mostly Effective

Elephants are monitored via telemetry collars, with 45 reported in late 2019 (African Parks website, 2020), to allow daily monitoring by staff to predict poaching and improve knowledge on the ecology of the species (State Party of the DRC, 2020). In 2019, a genomic elephant research study was carried in partnership with Stanford University to improve knowledge on factors such as diet, origin, crossbreeding, etc. and address wildlife trafficking (State Party of the DRC, 2020).

Overall assessment of protection and management

Some Concern

Since 2005, Garamba National Park is managed under a Public-Private-Partnership (PPP) arrangement by African Parks Network, which was renewed for a ten-year period in 2016. Following many years of insecurity in the region, progress has been achieved in recent years to improve surveillance within the site, including through a new law enforcement strategy from 2016, strengthening of staff numbers, surveillance and anti-poaching capacity in partnership between ICCN, FARDC and local authorities (increasing patrol surveillance to 68% of the World Heritage site and 32% of the Hunting Zones, and to 100% through aerial surveys), as well as sustainable development activities with local communities. Although elephant poaching saw a significant reduction in 2019 compared to recent years and surveillance has increased, issues continue to persist. Furthermore, further work is required to formalise the buffer zone and a transboundary management agreement with South Sudan in order to fully ensure the effective management of the site.

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

Some Concern

The regional security context including surveillance efforts has significantly improved in recent years, following many years of significant pressures from the Lord's Resistance Army (LRA). Surveillance has significantly increased but requires further strengthening since it covers only around a third of the Hunting Zones, and both a Land Use Plan for the Hunting Estate (under development since 2017) and designation of a formal buffer zone remain to be completed, in order to effectively designate, protect and manage the areas surrounding the site. In 2019, a ministerial decree was signed to prohibit artisanal exploitation in the hunting areas of Gangala Na Bodio, Azande and Mondo Missa in the province of Haut-Uélé which is anticipated to address illegal gold panning issues, and a transboundary management agreement with South Sudan is being planned. Strengthening and finalisation of these measures will be required to address potential threats from outside the site, such as illegal gold panning, forest clearance and agricultural settlement, and to ensure the protection of the buffer zone that is essential to the ecological integrity of the wider Garamba ecosystem.

State and trend of values

Assessing the current state and trend of values

World Heritage values

► Large expanse of guinea savannahs with the potential to support an exceptionally high large mammal biomass

Good Trend:Stable

The savannahs and habitats are considered to be in a good pristine condition, unaffected by human settlement, domestic animals, mining or other human activities. However, some change in vegetation structure and succession may be occurring as a result of the substantial reduction in elephant numbers (from around 22,000 in 1976 to around 1,200 in 2016) (State Party of the DRC, 2017). The potential of the area to support the massive populations of large herbivores known previously is largely a function of the biophysical conditions at Garamba, which remain essentially unchanged.

► Geographic location within the transition zone between two bio-geographically important centres of endemism (Guinean-Congo and Guinean-Sudanese) Low Concern Trend:Stable

The mix of habitat types from the two centers of endemism are still present, although it should be noted that the three buffer zones are critical to the maintenance of the full range of habitat types typical of this transition zone, and these remain to formalised, fully surveilled and the Land Use Plan for the Hunting Estates finalised. Illegal gold panning and clearing for agricultural settlement in the buffer zones has been negatively impacting certain important habitat types, particularly gallery forests which contain many typically moist forest species (UNESCO and IUCN, 2016).

▶ Presence of emblematic, endangered and/or endemic mammal species

High Concern Trend:Improving

All large herbivores have been affected by poaching, noting particularly that the northern white rhino is considered to be extinct in the wild and the elephant population has faced intense pressure from ivory poaching. Since 2004 the security situation has prevented the systematic collection of monitoring data across the whole park, however aerial censuses have allowed for monitoring in more recent years.

Management efforts by African Parks in recent years have enabled the state of the park to be greatly improved since 2015, allowing wildlife populations to grow whilst armed conflicts have been reduced (IUCN Consultation, 2020). Elephant poaching is reported to have progressively declined since aerial surveillance began in 2014 (UNESCO and IUCN, 2016), from 131 carcasses recorded in 2014, to 50 in 2017, to 8 in 2019 (State Party of the DRC, 2020). However, the current status of the population is unclear since the most recent 2019 elephant survey data are not available (State Party of the DRC, 2020). It is concerning that the previous 2017 systematic aerial count of large mammals reported the population at around 1,200 individuals, lower than the 2014 estimate (1,500 individuals), significantly lower than the 11,000 animals estimated before the start of the civil unrest in 1996 (UNESCO, 2019) and almost 95% lower than the 1976 figure (State Party of the DRC, 2017). It is currently unclear whether the elephant population is recovering.

The overall status of the Kordofan giraffe, DRC's only giraffe population, remains very concerning given that it is critically endangered with a global population of less than 1,400 individuals (Fennessy and Marais, 2018). However, it is encouraging that the number of individuals recorded is increasing: from 22 individuals in 2012 (African Parks website, 2020), to 47 in 2017, to 55 in late 2019 (UNESCO, 2018, 2019; State Party of the DRC, 2020), and 62 in April 2020 (IUCN Consultation, 2020). Also, no giraffe poaching was recorded in 2017 or 2018 (State Party of the DRC, 2020). In 2019, the government reported the completion of a Strategy and Action Plan for the conservation of giraffes and its plans to increase the population to at least 60 by 2022 (UNESCO, 2019). Whilst information on the Eastern Chimpanzee remains limited, it is noted that the species remains globally endangered and decreasing (Plumptre et al., 2016).

Summary of the Values

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

The Guinea savannahs of the park are intact and therefore maintain their potential for supporting an exceptionally large biomass of large herbivores. The mix of habitat types from the Guinea-Congolian and sudanian centres of endemism are still present in and around the park, but illegal gold panning in the buffer zones is threatening some areas of important habitats in the wider landscape (outside the property). Gallery forests in the buffer zones are particularly affected (where typically impacting moist forest species such as chimpanzees) occur. A 2019 Ministerial Decree to prohibit artisanal exploitation in the hunting areas aims to address illegal gold panning issues going forward.

Trend: Improving

Over the past decades, Garamba's emblematic and endangered animal species have been seriously threatened by poaching, reducing populations of elephant (1,200 individuals in 2017) and endemic Kordofan giraffe (62 individuals in 2020) to very low levels and driving the white rhino to extinction in the wild. Since 2016, anti-poaching efforts have increased and there has been a significant decrease in elephant poaching observed in recent years, however the current conservation status of the species remains unclear, and both elephants and Kordofan giraffe populations remain at low levels. However the significant conservation actions taken by APN in recent years when insecurity levels have been low and security measures increased (since 2014), have allowed for animal populations to increase slowly. Whilst monitoring data are insufficient for an accurate assessment of full trends over the past 5 years, it is positive that animal populations are growing, and strong management will need to be continued to ensure the recovery of key species into the future.

Additional information

Benefits

Understanding Benefits

▶ Water provision (importance for water quantity and quality)

The abundance of permanent water sources is a unique feature of the site and is one of the key contributing factors for the park's capacity to support a very high biomass of large herbivores.

Factors negatively affecting provision of this benefit :

- Habitat change: Impact level - Moderate, Trend - Increasing

▶ Outdoor recreation and tourism

The park has very significant tourist potential, but is prevented from maximizing this potential because of the security situation. Key tourist attractions are: a vast undulating, grassland-dominated landscape; a variety of large herbivore species, including spectacularly large herds of elephants at certain times of the year; large communal nesting sites of carmine bee-eaters; hippos and crocodiles in the rivers. This is one of very few sites in central Africa where this kind of tourist potential exists.

Direct employment

The site is highly valued for its unique biodiversity values resulting from its location in the transition zone between the guinea-sudanian and congolien zones of endemism. Typically savannah and moist forest species are all found within the site. The elephant population is one of the largest remaining in central Africa and is unique in being an inter-grade between forest and savannah types. It is also the last remaining site where the Congo or northern savannah giraffe is found.

It is also valued for its historic significance – it is one of Africa's oldest national parks.

The park provides employment (permanent and temporary) for many hundreds of people. It also contributes to the socio-economic welfare of local populations through road maintenance, health infrastructures and services, education, and micro-projects.

Summary of benefits

The national and global benefits in terms of nature conservation (unique mixture of savannah and forest species), and the potential benefits in terms of recreation (tourism) are of high importance. However these benefits are at risk because of the inability to resolve the problem of armed militia and relations with local populations.

Projects

Compilation of active conservation projects

 $egin{array}{lll} N_2 & Or & Pro & Brief description of Active Projects \\ ga & ject \\ niz & dur \\ ati & atio \\ on & n \end{array}$

1 Afri can Par ks Since 2005 African Parks Network (APN) has had the mandate from ICCN to manage Garamba National Park. The contract was renewed in January 2016 for a further 10 year period. APN mobilizes its own sources of funding, and also manages funds provided by the European Commission, Spanish Cooperation, World Bank, and various private foundations and NGOs. Current levels of funding are the highest they have been for over 20 years. Activities cover all aspects of park management: reorganisation of all park management structures, building and rehabilitating infrastructures, equipping and training guards, anti-poaching, community conservation, tourism development, research and monitoring,

REFERENCES

Nº References

- 1 African Parks (2017). Annual Reports. Available at: www.african-parks.org.
- African Parks (2020). Garamba National Park. [online] Available at: https://www.africanparks.org/the-parks/garamba (Accessed 10 June 2020).
- 3 Antonínová, M. (2010). Suivi écologie des éléphants (Loxodonta africana) dans le Parc National de la Garamba avec des colliers télémétriques. Rapport technique 1 (Mis en place des colliers, suivi et résultats préliminaires)
- 4 Aveling, C. (2010). Rapport de mission de la mission de suivi réactif de l'Etat de Conservation du Parc National de la Garamba République démocratique du Congo (RDC) 20 au 30 Mars, 2010.
- D'haen, M., Fennessy, J., Stabach, J. & Brandlovà, K. (2019). Population structure and spatial ecology of Kordofan giraffe in Garamba National Park, Democratic Republic of Congo. Ecology and Evolution. 2019;9:11395-11405. https://doi.org/10.1002/ece3.5640
- Fennessy, J., Marais, A. (2018). Giraffa camelopardalis ssp. antiquorum. The IUCN Red List of Threatened Species 2018: e.T88420742A88420817. Available at: https://dx.doi.org/10.2305/IUCN.UK.2018-2.RLTS.T88420742A88.... [Accessed 21 June 2020].
- Fonds Okapi (2020). Newsletter 1. Fonds Okapi pour la Conservation de la Nature en RDC. https://mailchi.mp/33c8245052ac/petit-rappel-invitation-lan... [Accessed 10 June 2020].
- 8 Green, M. (2008). The Wizard of the Nile: The Hunt for Africa's Most Wanted. Portobello Books Ltd.
- 9 ICCN (2010). Plan Général de Gestion 2011-2015, Parc National de la Garamba (draft).
- Marais, A.J., Fennessy, S. & Fennessy J. (2012). Country Profile: A rapid assessment of the giraffe conservation status in the Democratic Republic of Congo. Giraffe Conservation Foundation, Windhoek, Namibia.
- Oriental Info (2019). HAUT-UELE: LA SOCIÉTÉ CIVILE EN COLÈRE CONTRE LE PARC DE LA GARAMBA, DEUX JOURNÉES VILLE MORTE EN VUE. Available at: https://www.orientalinfo.net/10/09/haut-uele-la-societe-civ....
- Plumptre, A., Hart, J.A., Hicks, T.C., Nixon, S., Piel, A.K. & Pintea, L. (2016). Pan troglodytes ssp. schweinfurthii (errata version published in 2016). The IUCN Red List of Threatened Species 2016: e.T15937A102329417. Available at: https://dx.doi.org/10.2305/IUCN.UK.2016-2.RLTS.T15937A17990... [Accessed 21 June 2020].
- State Party of the Democratic Republic of Congo. (2017). Report of the State Party to the World Heritage Committee on the state of conservation of the Garamba National Park (Democratic Republic of Congo). [online] Institut Congolais pour la Conservation de la Nature (ICCN). Available at: https://whc.unesco.org/en/list/136/documents/.
- State Party of the Democratic Republic of Congo. (2018). Report of the State Party to the World Heritage Committee on the state of conservation of the Garamba National Park (Democratic Republic of Congo). [online] Institut Congolais pour la Conservation de la Nature (ICCN). Available at: https://whc.unesco.org/en/list/136/documents/ (Accessed 10 September 2019).
- State Party of the Democratic Republic of Congo. (2019). Report of the State Party to the World Heritage Committee on the state of conservation of the Garamba National Park (Democratic Republic of Congo). [online] Institut Congolais pour la Conservation de la Nature (ICCN). Available at: https://whc.unesco.org/en/list/136/documents/ (Accessed 10 September 2019).

Nº References

- State Party of the Democratic Republic of Congo. (2020). Report of the State Party to the World Heritage Committee on the state of conservation of the Garamba National Park (Democratic Republic of Congo). [online] Institut Congolais pour la Conservation de la Nature (ICCN). Available at: https://whc.unesco.org/en/list/136/documents/ (Accessed 10 June 2020).
- 17 Titeca, K. (2013). Ivory beyond the LRA: why a broader focus is needed in studying poaching. African Arguments, 17 September 2013. Available at: https://africanarguments.org/2013/09/17/ivory-beyond-the-lr... [Accessed May 2020].
- Titeca, K. and Edmond, P. (2019). Outside the Frame: Looking Beyond the Myth of Garamba's LRA's Ivory–Terrorism Nexus. Conservation and Society 17(3): 258-269.
- Titeca, K., Costeur, T. (2015). An LRA for everyone. How different actors frame their own Lord's Resistance Army. African Affairs. 114 (454): pp.92-114.
- Titeca, K., Edmond, P., Marchais, G., Marijnen, E. (2020). Conservation as a social contract in a violent frontier: The case of (Anti-) poaching in Garamba National Park, eastern DR Congo. Political Geography 78.
- UNESCO (2013). Report on the State of Conservation of Garamba National Park, Democratic Republic of Congo. State of Conservation Information System of the World Heritage Centre. [online] Paris, France: UNESCO World Heritage Centre. Available at: https://whc.unesco.org/en/soc/1833 [Accessed 2017].
- UNESCO (2018). Report on the State of Conservation of Garamba National Park, Democratic Republic of Congo. State of Conservation Information System of the World Heritage Centre. [online] Paris, France: UNESCO World Heritage Centre. Available at: https://whc.unesco.org/en/soc/3811 [Accessed 10 June 2020].
- UNESCO (2019). Report on the State of Conservation of Garamba National Park, Democratic Republic of Congo. State of Conservation Information System of the World Heritage Centre. [online] Paris, France: UNESCO World Heritage Centre. Available at: https://whc.unesco.org/en/soc/3843 [Accessed 10 June 2020].
- UNESCO et UICN (2016). Rapport de la mission de suivi réactif Centre du patrimoine mondial/UICN au Parc National de la Garamba République démocratique du Congo (RDC) 29 fevrier au 8 Mars, 2016. [online] Paris, France and Gland, Switzerland: UNESCO World Heritage Centre and IUCN, pp.1-47. Available at: https://whc.unesco.org/document/142202.
- UNESCO. (2017). Report on the State of Conservation of Garamba National Par, Democratic Republic of Congo. State of Conservation Information System of the World Heritage Centre. [online] Paris, France: UNESCO World Heritage Centre. Available at: https://whc.unesco.org/en/soc/3505 ;(Accessed 10 June 2020).
- World Heritage Committee (2012). Decision 36 COM 8E. Garamba National Park Statement of Outstanding Universal Value (Republic of the DRC). In: Decisions Adopted by the World Heritage Committee at its 36th Session (St Petersburg, 2012). [online] Paris, France: UNESCO World Heritage Centre. Available at: https://whc.unesco.org/archive/2012/whc12-36com-19e.pdf [Accessed 22 August 2017].