IUCN Conservation Outlook Assessment 2017 **(archived)**
Finalised on 08 November 2017

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

Serengeti National Park

SITE INFORMATION

Country:
Tanzania (United Republic of)
Inscribed in: 1981
Criteria:
(vii) (x)

Site description:

The vast plains of the Serengeti comprise 1.5 million ha of savannah. The annual migration to permanent water holes of vast herds of herbivores (wildebeest, gazelles and zebras), followed by their predators, is one of the most impressive natural events in the world. © UNESCO

SUMMARY

2017 Conservation Outlook

Good with some concerns

The large size of Serengeti National Park and its location at the core of a trans-boundary complex of protected areas (which together cover most of the wider ecosystem) should ensure the long-term protection of its values. Recent threats to build a major road through the northern part of the park, and establish other infrastructure corridors, have been stopped for the time being, but there remains a possibility that such projects will be re-examined. Tourism brings substantial financial benefits which support management of Serengeti as well as other parks in Tanzania, but associated developments will require continued vigilance to ensure that carrying capacities are not exceeded. If the construction of a road through Serengeti National Park were to go forward in the future, it would adversely affect the wildebeest migration and could endanger the ecosystems and wildlife populations of the Serengeti and its wider ecosystem, and would constitute a very high threat to the park. Equally, the development of the three proposed dams upstream of the property could significantly affect the water availability and water regime of the Mara River, which could alter the natural migration patterns of wildlife. Implementation of these projects considerably increase the concern for the protection of the OUV of the property and would therefore require the overall Conservation Outlook to be updated.

Current state and trend of VALUES

Low Concern
Trend: Stable

The World Heritage values of Serengeti National Park are being well maintained as a result of appropriate management of the site and surrounding protected areas (which serve as an essential buffer zone, sustaining the migrating herds for much of the year beyond the boundaries of the park). The status of the park’s two most endangered species (black rhino and wild dog) remains critical.

Overall THREATS

Low Threat

Although there are numerous threats to the park they are generally being addressed adequately by park management and its ecological integrity is well maintained. Threats from poaching, fire, disease transmission from domestic stock, spread of invasive alien plants and human-wildlife conflicts are under control, except for increasing levels of rhino and elephant poaching. Tourism demand is growing strongly, creating pressure for further accommodation, game-viewing tracks and other infrastructure developments, but the potential damage of such developments is being effectively managed and mitigated. The availability of water – the key driver of the migration – is a crucial factor and there are emerging issues over the state of the Mara River, the ecosystem’s only permanent water. Additional potential threats arise from changes in land-use patterns in the buffer zones around the park, which are likely to exert increasing constraints on the geographical reach of the migration, and possible future road proposals through the park. Climate change may be sufficient to effect significant ecological change on the ecosystem. If the construction of a road through the Serengeti were to go forward in the future, it would adversely affect the wildebeest migration and could endanger the ecosystems and wildlife populations of the Serengeti and its wider ecosystem and constitute a very high threat to the park.

Overall PROTECTION and MANAGEMENT

Mostly Effective

Serengeti benefits from a strong policy and legislative environment which enables TANAPA to raise and retain revenues from a rapidly growing number of visitors. Funds generated at Serengeti (US$ 22.4 million in 2009/10) have been used to strengthen protection and management of the park, as well as other Tanzanian parks. Although there are still some shortcomings this is one of the best managed parks in Africa, maintaining a high degree of ecological integrity. The site is surrounded by other protected areas, and although these are subject to some degree of resource use from trophy hunting, pastoralism and other activities they serve as an effective buffer zone maintaining the ecological integrity of the entire ecosystem.

FULL ASSESSMENT

Description of values

Values

World Heritage values

▶ **Greatest terrestrial mammal migration on Earth**
Criterion:(vii)

The Serengeti supports the greatest large mammal migration on Earth, involving approximately 1.4 million wildebeest, 200,000 zebra and 300,000 Thomson's and Grant's gazelle (TAWIRI Aerial Census, 2010). The predators, are dependent on the abundance of grazers, and the ecosystems harbours 7,500 hyenas, 3,000 lions and other predators. The annual migration follows a 1,000 km circuit between key dry-season water points and grazing lands along the Mara river (in Kenya's Masai Mara Reserve) and short-grass pastures and calving grounds to the south (in the Ngorongoro Conservation Area) (World Heritage Committee, 2012).

▶ **Outstanding savanna scenery**
Criterion:(vii)

Serengeti means 'endless plains' in the local Masai language, and the vast expanse of short-grass savannas provide a spectacular setting for the phenomenal congregations of wildlife. The plains are punctuated by impressive outcrops of massive weathered granite 'kopjes', seasonal wetlands, low hills and a diversity of woodland types (World Heritage Committee, 2012).

▶ **Complex and complete mammalian community**
Criterion:(x)

The mammalian community is the most diverse and complex savanna community on Earth, including 1.4 million wildebeest, 200,000 zebra, 300,000 Thomson's and Grant's gazelle and large numbers of other species such as buffalo, eland, topi, giraffe, warthog, elephant, hippopotamus, and black rhino (TAWIRI Aerial Census, 2010). The complex community of large grazing mammals is accompanied by an equally impressive diversity of large and small predators including as many as 7,500 hyenas, 3,000 lions, 1,000 leopards, 225 cheetahs and wild dogs (World Heritage Committee, 2012; Tanzania, 2011).

► Diversity of savanna communities

Criterion:(x)

The 'endless plains' of Serengeti experience a remarkable spatial complexity of abiotic factors (rainfall, temperature, soils, topography), resulting in a diverse array of savanna grassland, forest and woodland communities. These include short-grass plains, Terminalia and Acacia woodlands, gallery forests and communities associated with saline pans, other wetlands and rocky kopjes. The General Management Plan (2006-16) distinguishes 7 major vegetation types and a number of sub-types (World Heritage Committee, 2012).

► Diversity of other fauna and flora

Criterion:(x)

The park's flora and fauna has not been systematically surveyed, but species diversity is expected to be high for a wide range of taxa. The park lies within one of the world's Endemic Bird Areas, with over 500 bird species recorded (World Heritage Committee, 2012; BirdLife International, 2017; UNEP-WCMC, 2011).

► Rare and endangered species

Criterion:(x)

Rare and endangered species include cheetah (VU), elephant (VU), black rhino (CR), African wild dog (EN) and hippo (VU), as well as 5 species of birds (World Heritage Committee, 2012; UNEP-WCMC, 2011).

▶ **Large, ecologically dynamic self-sustaining ecosystem**
Criterion:(x)

Serengeti National Park (14,763 km2) lies at the core of the wider Serengeti ecosystem which includes a complex of protected areas covering a total area of 35,567 km2. Other components of the complex cover an additional 20,804 km2 and include Ngorongoro Conservation Area (8,094 km2), Maswa Game reserve (2,200 km2), Ikorongo-Grumeti Game Reserves (5,000 km2), Loliondo Game Controlled Area (4,000 km2) and Masai Mara National Reserve in Kenya (1,510 km2). The protected status of adjacent areas ensures that the entire ecosystem used by the migrating herds is maintained in an ecologically viable state (World Heritage Committee, 2012; UNEP-WCMC, 2011).

Assessment information

Threats

Current Threats
Low Threat

Current threats to this extensive site are wide-ranging, but generally low-level and adequately addressed. Anti-poaching efforts have been strengthened and its operations successful, but with the continued loss of elephants to poachers, sustained anti-poaching efforts are needed throughout the Serengeti ecosystem. Tourism pressures are growing, leading to local over-use in parts of the park. The availability of water – the key driver of the migration – is a crucial factor and there are emerging issues over the state of the Mara River, the ecosystem’s only permanent water. Other significant threats to the property include the spread of invasive alien plants, disease transmission between domestic and wild animals, the occurrence of uncontrolled fires, and budgetary constraints on management.

► Dams/ Water Management or Use

Data Deficient
Inside site, widespread(15-50%)

Surface water is scarce throughout Serengeti, the only permanent source being the Mara River in the north. This river is threatened by unsustainable levels of water abstraction and by degradation of forest in the Mau catchment (in Kenya) (Tanzania, 2011). A continuous flow in the Mara river is essential for the migration, as it is the only water source available in the dry season. Water for the park headquarters and other infrastructure at Seronera (in the centre of the park) is extremely limited and is piped a considerable distance from Bologonja Springs. Elsewhere, tourist lodges and other facilities depend on borehole water.

► Hunting (commercial/subsistence)

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

Anti-poaching efforts have been strengthened in recent years, and its operations have been successful at the property. The 32 elephants poached (average of 16 per year) during the 2014-16 period (Tanzania, 2016) is a decline from the previous 2011-13 period (28 per year). Nevertheless, this illustrates the need for sustained anti-poaching effort needs throughout the Serengeti ecosystem.

► Poaching

Low Threat
Inside site, scattered(5-15%)

Subsistence poaching for meat targets the migration of wildebeest and constitutes a steady drain on the animal population (UNESCO and IUCN, 2010). However, as populations of most target species are stable or increasing, this does not appear to be affecting their overall viability.

► Other

Low Threat

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

A total of 68 human-wildlife conflicts were recorded in 4 adjacent villages during 2011, of which 31 involved elephants (Tanzania, 2012). The State Party of Tanzania reported in 2014, that land use plans are being implemented in affected communities, research on best practice human-elephant conflict control approach through the use of chilli fences has been implemented, and communities adjacent to the property are being assisted (Tanzania, 2014).

► Tourism/ Recreation Areas

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

The central part of Serengeti (around Seronera) appears to be overwhelmed by visitors (Tanzania, 2011), partly because tourism infrastructure and facilities are concentrated in this relatively small area. Overnight facilities include a total of 2,016 beds, comprising 5 lodges, 9 permanent tented camps, 9 public campsites, 98 ‘premium’ and ‘special’ campsites, 4 rest houses and a youth hostel. The road network used for game viewing is limited, and much of it is heavily used, especially around Seronera.

► Tourism/ visitors/ recreation

Low Threat
Inside site, localised(<5%)

The park receives approximately 160,000 non resident visitors per annum, (350,000 travel through, but mostly just crossing the park without visiting) (Tanzania, 2011), which would not be excessive if they were well distributed around the park. However, visitors tend to concentrate around Seronera where there is an attractive visitor centre and other facilities. There are few opportunities for visitors to get out of their vehicles elsewhere, and the number of game viewing tracks is limited, so those that exist become quickly over-crowded.

► Fire/ Fire Suppression

Low Threat

Inside site, localised(<5%)

Although the Serengeti ecosystem is adapted to fire, hot burns (which occur at the end of the dry season and are often lit by poachers to detract attention from their activities) can cause extensive long-term damage to woody vegetation (Tanzania, 2011)

► Invasive Non-Native/ Alien Species

Data Deficient
Inside site, extent of threat not known

Three invasive alien weed species are already established in the park (Argemone mexicana, Datura stromonium and Opuntia species) and two others are reported in neighbouring parts of the wider ecosystem. The highly aggressive and damaging weed Parthemium hysterophorus is already found in Ngorongoro Conservation Area and Masai Mara National Reserve, while Chromolaena odorata is in Grumeti Game Reserve (UNESCO and IUCN, 2010).

► Other

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

Disease transmission between domestic stock and wildlife can be catastrophic. The present population of 1.4 million wildebeest is the result of long-term recovery from a rinderpest outbreak, transmitted by cattle, which had decimated the population. Wild dogs disappeared from the park in 1991, when a rabies outbreak killed three packs (UNEP-WCMC, 2011). Over 1000 lions, a third of the population, were killed in a canine distemper virus epidemic in 1993/94.

Potential Threats

High Threat

Additional threats arise from changes in land-use patterns in the buffer zones around the park, which are likely to exert increasing constraints on the geographical reach of the migration, as well as a possible future road proposal through northern Serengeti. Climate change may be sufficient to affect significant ecological change on the ecosystem. Inadequacies in collaboration

between institutional stakeholders, at national and trans-boundary level may also threaten the long-term management of the ecosystem. If the construction of a road through Serengeti were to go forward in the future, it would adversely affect the wildebeest migration and could endanger the ecosystems and wildlife populations of the Serengeti and its wider ecosystem, and constitute a very high threat to the park. Further threat to wildebeest migration is posed by the proposed lodge development within the property in an area overlapping with, or in proximity to, the migration route. The three proposed dams upstream of the property in Kenya and Tanzania on the main tributaries of the Mara River – the key water source within Serengeti - raise significant concerns.

► Roads/ Railroads

High Threat
Inside site, localised(<5%)

There have been a series of development proposals to link the heavily-populated parts of the Lake Victoria basin to the west of Serengeti with the port city of Dar es Salaam and other areas to the east of the park including; an early proposal to construct a railway through the park (IUCN, 1981), to pass fibre-optic cables through the park (Tanzania, 2010), and to build a road through the park (UNESCO, 2009). The construction of a highly controversial tarmac road had previously been proposed, which would transect northern Serengeti from Musoma to Arusha via Tabora ‘B’ (park gate) and Klein’s Gate (UNESCO and IUCN, 2010). The status of this project is currently unclear, but should it proceed, it would constitute a major threat to the property’s OUV due to the likely adverse impact of the road on wildebeest migration.
The Committee has recently requested the SP to conduct an EIA for the heavily used Naabi Hill- Seronera road through the property (World Heritage Committee, 2016).

► Habitat Shifting/ Alteration

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

Human population densities are increasing in all areas around the protected area complex, limiting wildlife migration routes in the buffer zones and exacerbating human-wildlife conflict.

► Droughts

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

The potential impact of climate change is unknown, but may affect critical aspects of ecosystem dynamics including water availability and the quality and quantity of grazing.

► Flight Paths

Data Deficient
Outside site

According to the 2014 State of Conservation report, there are plans for the construction of an international airport at Mugumu, approximately 40 km away from the World Heritage Site. This airport would increase the area's capacity for tourism development. Although some media reports suggest that construction could start in 2014, the current status of this project is not clear. A project to expand Mugumu Airport to accommodate international flights has been proposed, and the SP has reported that the EIA is undergoing revision following a first review by the National Environment Management Council (Tanzania, 2016). The EIA has not yet been made available for external review.

► Dams/ Water Management or Use

Very High Threat
Outside site

Three dams have been proposed upstream of Serengeti in Kenya and Tanzania, which could have a significant impact on the OUV.
Norera Dam on the Amala River in Kenya, and Borenga Dam on the Mara River in Tanzania, appear to be linked as part of a transboundary initiative by the Nile Basin Initiative. Feasibility studies from December 2014 for the two projects state that full ESIAs, Management Plans and Resettlement Actions Plans have been produced. The two projects would each comprise of new road construction, improvement of existing roads, electricity transmission lines, pipes for water transport and a hydroelectric dam.
The Ewaso Ng'iro Hydroelectric Project (ENP) was discussed by the

Committee in 2001 and 2002, but the current status of the project is unclear at present. According to a publically available PowerPoint dated March 2014, it will comprise of three successional dams that would avert water from the Mara River basin to Lake Natron. This has the likelihood of reducing water flow into the Serengeti ecosystem thereby possibly impacting wildlife migration and hence the OUV of Serengeti, as well as altering water flow into Lake Natron, which the Committee has been requesting the SPs of Kenya and Tanzania to consider as a serial transnational extension to Kenya Lake System of the Great Rift Valley, given its critical importance for the conservation of lesser flamingo.
These multiple hydroelectric projects proposed upstream of Serengeti on rivers, which are the main tributaries of the Mara River – the key water source within Serengeti raise considerable concerns.

► Tourism/ Recreation Areas

Low Threat
Inside site, localised(<5%)

Belabela tourist lodge has been proposed inside the property, which would comprise 40 visitor accommodation and swimming pool among others. The project has been proposed within the “low use zone” according to the Serengeti National Park General Management Plan (GMP), which permits only permanent and semi-permanent tented camps. It therefore appears that the proposed development is incompatible with the GMP.

Protection and management

Assessing Protection and Management

► Relationships with local people

Data Deficient

The park adjoins other protected areas on all sides, with only those lying to the east (Loliondo Game Controlled Area) and south (Ngorongoro Conservation Area) allowing a resident human population. Nevertheless, Community Outreach is one of the park’s four main programmes of work (GMP, 2006-16) with activities aimed at strengthening relationships with

neighbouring communities and local government, and assisting with development of community-based natural resource management programmes in the buffer zones so as to reduce poaching and dependence on park resources.

► Legal framework

Mostly Effective

The legal framework is robust, with the Tanzania National Parks Act CAP [282] of 2002 providing for the establishment of a semi-autonomous agency, Tanzania National Parks (TANAPA) with its own Board of Trustees and facility to retain all revenues. TANAPA operates under a comprehensive National Parks Policy, which requires that all national parks operate within the framework of an approved management plan. In addition infrastructural developments throughout Tanzania are subject to Environmental Impact Assessment (EIA) under the Environmental Management Act (2004) and 2005 EIA Regulations. The effectiveness of law enforcement operations, particularly those relating to poaching has been slowly improving, but there are still shortcomings. The park lost 90% of its rhinos to poachers in the 1980s and there had been a surge in commercial poaching for elephant ivory, before the recent increased anti-poaching efforts which has seen a decline in elephant carcasses (Tanzania, 2016).

► Enforcement

Data Deficient

Data deficient

► Integration into regional and national planning systems

Mostly Effective

Coordination at a trans-boundary level, particularly over sustainable management of the Mara River, is facilitated by the Lake Victoria Basin Commission (Tanzania, 2012). However, there is insufficient coordination between key institutional stakeholders at several levels. One of the most important issues is international cooperation between Tanzania and Kenya in implementing appropriate measures for the sustainable management of the Mara River. The Serengeti Ecosystem Forum is no longer active.

► Management system

Highly Effective

The park operates under a General Management Plan (2006-16), with four main management programmes aligned to the park's operational departments (ecosystem management, tourism, community outreach and park operations). Tourism impacts are managed through a system of zonation with high use, low use and wilderness areas. The GMP expired in 2016 however, and requires updating. The 2010 IUCN/UNESCO monitoring mission team commended TANAPA for the quality of the GMP and considered that it could serve as a model for other parks in the country as well as other World Heritage sites.

► Management effectiveness

Mostly Effective

Management is generally effective, but there are significant budgetary constraints as the majority of Serengeti revenues are used to cross-subsidise other parks elsewhere in Tanzania. Capital investment is particularly affected, with insufficient funds available for enough patrol vehicles and road servicing plant (Tanzania, 2011).Anti-poaching patrols increased from 45,180 patrol man-days in 2014 to 45,400 in 2015 (Tanzania, 2016). These efforts led to confiscation of 28 firearms, 207,479 other weapon and 1,748 arrests (Tanzania, 2016).

► Implementation of Committee decisions and recommendations

Mostly Effective

Most Committee decisions are implemented in a timely manner, or further explanation on actions pending is provided. More resources have been allocated to anti-poaching efforts; first draft of the SEA on the Comprehensive Transport and Trade System Development Master Plan; collaboration on control of invasive exotic vegetation undertaken; community needs addressed; and the Serengeti Ecosystem Forum re-activated. There are still ongoing issues related to the annexation of land in the Speke Gulf area (which local residents oppose) and sustainable management of the Mara River.

► Boundaries

Some Concern

The World Heritage site is at the core of the wider Serengeti ecosystem and is surrounded by other protected areas, making up about half the total area. The ecological integrity of the site is therefore dependent on effective management and protection of areas beyond its boundary, which constitute a ‘buffer zone’. This seems assured, but it would be advisable to formally recognize the adjoining protected areas as a buffer zone (UNESCO and IUCN, 2010). Physical demarcation of the boundary (with concrete cairns) is ongoing. There is a plan to extend the ‘western corridor’ of the park (adding 96km2) to provide wildlife access to permanent fresh water at Speke Gulf (Lake Victoria), but this is being resisted by local community representatives (Tanzania, 2012). Adjacent Makao Wildlife Management Area, Loliondo Game Controlled and Maswa Game Reserve buffers the Serengeti, but these two protected areas are highly influenced by human activities. Hunting pressure from these protected areas can affect the Serengeti. Unlike those protected areas, Maasai Mara Game Reserve, Ngorongoro Conservation Area, Grumeti Game Reserve and Ikorongo Game Reserve provide adequate buffer to Serengeti.

► Sustainable finance

Mostly Effective

Serengeti is one of TANAPA’s main sources of revenue, and 70% of the US$ 22.4 million generated in 2009/10 was used to support conservation of less profitable parks elsewhere in Tanzania. The remaining 30% (US$6.5 million) was deployed at Serengeti, where it was insufficient to meet all planned expenditures. Capital investment has been badly affected by budget constraints, leaving the park with insufficient patrol vehicles and heavy plant for road maintenance (Tanzania, 2011)

► Staff training and development

Mostly Effective

There are currently 422 staff, somewhat short of the required 608 envisaged in the General Management Plan (Tanzania, 2012). Approximately half are park rangers, responsible for law enforcement. The 2010 mission team

assessed the training levels of park wardens and other professional staff as being ‘good’, and that of technical staff as ‘fair’.

► Sustainable use

Data Deficient

There is no consumptive use of resources within the site, but most of the adjoining protected areas (the ‘buffer zone’) allow some degree of resource use, including trophy hunting (in Maswa Game Reserve), pastoralism (in Loliondo and Ngorongoro) and other compatible activities.

► Education and interpretation programs

Data Deficient

The park operates an outreach programme, and assists in organizing group visits by local community members. In 2009/10, approximately 4,000 members of local communities visited the park including 1,700 school children from 7 adjacent administrative districts.

► Tourism and visitation management

Mostly Effective

The number of visitors has increased strongly over the past ten years, and currently numbers around 300,000 per annum, about half of whom are foreign visitors. There is a total bed capacity of 2,016 and a policy to grow this number through development of low-impact high-value facilities, focused on additional tented camps. A review of tourism development was carried out in 2011 aimed at finding ways to distribute tourism activities more widely. A superb visitor centre is located at Seronera.

► Monitoring

Some Concern

Ecological monitoring involving systematic aerial censuses of the principal large mammals has been undertaken every few years for several decades, providing a sound understanding of population trends for about 20-25 prominent species. Six main ‘ecosystem health indicators’ have been identified to serve as a focus for future ecological monitoring activities as follows: migration; Mara river flow; Terminalia and Acacia woodlands, rhino

population, kopjes habitat and wild dog. The park was part of the UNESCO pilot project (2007) on management effectiveness, which involved development of a monitoring system to track implementation of management activities, but this has not been used, nor has an effective alternative been developed (UNESCO and IUCN, 2010). There remains a need to develop protocols to monitor management effectiveness and the conservation impacts of management interventions, as a basis for adapting management.

► Research

Mostly Effective

The park has been a major centre of ecological research for five decades, and the Serengeti Research Centre has well-established linkages with international academic institutions. It has well-equipped laboratories, a herbarium and accommodation facilities for visiting scientists. There are currently 15 research projects underway, including long-term studies on cheetah, lion, hyena, biodiversity, vegetation dynamics, wildlife diseases and water quality/quantity (Tanzania, 2011). These are not always linked directly to management.

Overall assessment of protection and management

Mostly Effective

Serengeti benefits from a strong policy and legislative environment which enables TANAPA to raise and retain revenues from a rapidly growing number of visitors. Funds generated at Serengeti (US$ 22.4 million in 2009/10) have been used to strengthen protection and management of the park, as well as other Tanzanian parks. Although there are still some shortcomings this is one of the best managed parks in Africa, maintaining a high degree of ecological integrity. The site is surrounded by other protected areas, and although these are subject to some degree of resource use from trophy hunting, pastoralism and other activities they serve as an effective buffer zone maintaining the ecological integrity of the entire ecosystem.

► Assessment of the effectiveness of protection and management in

addressing threats outside the site

Mostly Effective

The site is surrounded by other protected areas, and although these are subject to some degree of resource use from trophy hunting, pastoralism and other activities they serve as an effective buffer zone maintaining the ecological integrity of the entire ecosystem.

State and trend of values

Assessing the current state and trend of values

World Heritage values

► Greatest terrestrial mammal migration on Earth

Good
Trend:Stable

The migration is essentially intact with all major parts of the route used by the migrating herds included within protected areas. Small areas of the migration route bordering the north-west of the park are unprotected and some poaching occurs here, but populations of the major species are able to withstand this level of off-take (Thirgood et al., 2004).

► Outstanding savanna scenery

Good
Trend:Stable

The scenic values of the site are being well maintained, with lodge and tented camp developments generally well positioned, concealed, and appropriately designed.

► Complex and complete mammalian community

Good
Trend:Stable

This is one of the few African parks to have maintained a complete mammalian fauna, (with the exception of wild dog, which became locally extinct in 1991, UNEP-WCMC, 2011). Five wildlife censuses of major species

conducted between 1996 and 2010 indicate stable populations of 13 species, increasing populations of 5 species and decreasing populations of 1 species (Tanzania, 2011; TAWIRI Aerial Census, 2010)

▶ Diversity of savanna communities

Data Deficient
Trend:Data Deficient

No data available, but assumed to be stable

▶ Diversity of other fauna and flora

Data Deficient
Trend:Data Deficient

No data available, but assumed to be stable

▶ Rare and endangered species

Low Concern
Trend:Improving

The status of some notable species appears to be improving. Elephant populations are reportedly increasing, although care is needed when interpreting the census data due to changes in methodology and technology; the small black rhino population (remnants of a population that was heavily poached during the 1980s) has been supplemented with additional animals translocated from South Africa (originally from East African genetic stock). A TAWIRI-led project has reintroduced about 60 wild dogs into Serengeti National Park from Loliondo, and are now flourishing in the Nyamuma and Nyasirori areas. Certain packs had been known to prey on livestock thus attracting persecution from pastoral communities in the area, so populations are being monitored by TAWIRI.

▶ Large, ecologically dynamic self-sustaining ecosystem

Good
Trend:Stable

The site, with its surrounding protected areas under various management regimes has been well maintained, ensuring the maintenance of ecological integrity of the entire ecosystem.

Summary of the Values

- **Assessment of the current state and trend of World Heritage values**
  Low Concern
  Trend: Stable

  The World Heritage values of Serengeti National Park are being well maintained as a result of appropriate management of the site and surrounding protected areas (which serve as an essential buffer zone, sustaining the migrating herds for much of the year beyond the boundaries of the park). The status of the park's two most endangered species (black rhino and wild dog) remains critical.

Additional information

Benefits

Understanding Benefits

- **Collection of wild plants and mushrooms, Traditional agriculture, Livestock grazing areas**

  The Maasai communities have historically depended on livestock keeping as the mainstay of their economy.

  Cattle grazing is increasing, particularly in the Loliondo area.

- **History and tradition, Wilderness and iconic features, Sacred natural sites or landscapes, Cultural identity and sense of belonging**

  The Serengeti ecosystem harbours cultural and spiritual values for Maasai communities.

▶ **Importance for research, Contribution to education**

Serengeti is an important area of research and education.

▶ **Soil stabilisation, Flood prevention, Water provision (importance for water quantity and quality), Pollination**

Spanning vast expanses of plains, savannah, savannah woodlands and forests serve as an important water catchment.

▶ **Tourism-related income, Provision of jobs**

Tourism in Serengeti is the main source of income. Fee structure is available online.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	Frankfurt Zoological Society		Support for ecological monitoring, resource protection, and tourism activities, community conservation
2	Tanzania Wildlife Research Institute		Implementation of regular aerial censuses, wildlife research
3	Friends of Serengeti (Switzerland)		Support of resource protection and infrastructure projects
4	WWF		Monitoring and coordination of efforts towards sustainable management of the Mara river

Compilation of potential site needs

№	Site need title	Brief description of potential site needs	Support needed for following years
1	World Bank	Serengeti South Alternative Road, rural development in areas adjacent to the Serengeti National Park	

№	Site need title	Brief description of potential site needs	Support needed for following years
2	Norwegian Embassy	Research on road requirements and routing options	
3	German Federal Ministry of Economic Co-operation and Development, BMZ with GIZ and KFW	Economic development activities in adjoining districts and park protection	

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