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

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

Simien National Park

SITE INFORMATION

Country:
Ethiopia
Inscribed in: 1978
Criteria:
(vii) (x)

Site description:
Massive erosion over the years on the Ethiopian plateau has created one of the most spectacular landscapes in the world, with jagged mountain peaks, deep valleys and sharp precipices dropping some 1,500 m. The park is home to some extremely rare animals such as the Gelada baboon, the Simien fox and the Walia ibex, a goat found nowhere else in the world. © UNESCO

SUMMARY

2017 Conservation Outlook

Significant concern

Simien National Park was one of the first four natural sites to be inscribed on the World Heritage list, and the first in Africa. The property has always faced extreme challenges arising from its location in the densely populated Ethiopian highlands where people live close to nature and directly rely on its bounty. The area was settled millennia before the national park's creation. In forty years alone, the population around the site has increased fourfold. It remains under intense human pressure with few settlements remaining inside the park, some area under cultivation and most of the rest subject to intensive grazing pressure from domestic livestock originating from outside the park, which is fourteen times that estimated to be sustainable. The biodiversity values were severely impacted by high levels of human activity, including long-term settlement, cultivation resulting in widespread soil degradation, and high levels of grazing by domestic stock.

However, wildlife populations, including the park's highly endangered large mammals (Walia ibex and Ethiopian wolf) as well as the endemic gelada, are reported to be stable thanks to the efforts of the park's management and its partners. The park has just been removed from the List of World Heritage in Danger on which it was inscribed in 1996 and much more remains to be done to conserve and restore other biodiversity values and ecological integrity. The most significant step forward is the recent reconfiguration and enlargement of the national park, which needs to be sustained by corresponding management and should be formalized under the World Heritage Convention as soon as feasible.

Current state and trend of VALUES

High Concern
Trend: Improving

The scenic values of this dramatic mountain escarpment with its far-reaching views are maintained, although they are visually affected to some extent by a

major road and a parallel power line which pass through the core of the property. The biodiversity values have been severely impacted on by high levels of human activity, including the destruction and degradation of important and once much larger forests, long-term settlement, cultivation and high levels of grazing by domestic stock. Wildlife populations, including the park's highly endangered large mammals (Walia ibex and Ethiopian wolf) as well as the endemic gelada, are reported to be stable thanks to the efforts of the park's management and its partners. The park was inscribed on the List of World Heritage In Danger in 1996, and it was recently removed from that list, much more remains to be done to conserve and restore the biodiversity values and ecological integrity.

Overall THREATS

High Threat

Many of the threats, which resulted in the property's inscription on the List of World Heritage in Danger in 1996 in principle, remain despite laudable improvements resulting in the recent removal of the property from that list (World Heritage Committee, 2017). High levels of direct human dependence on the national park's natural resources persist, with human population ever increasing. The expansion of the boundaries of the current World Heritage property to be aligned with the extended National Park boundaries as repeatedly requested by the World Heritage Committee, would improve the outlook of the property. The effects of climate change is already being felt, with potential future implications, as well as the current and future tourism developments and their impacts on the ecosystem.

Overall PROTECTION and MANAGEMENT

Serious Concern

The reconfiguration of the national park boundaries, more than tripling its surface area to around 42,000 hectares is probably the most significant step to invest in the long-term viability of the national park. As requested by the World Heritage Committee, the new boundaries should be harmonized with the formal World Heritage boundaries via a significant boundary modification. Despite considerable recent improvements in protection and management, which have contributed to a stabilisation of the populations of the park's highly endangered flagship mammal species and some progress in terms of community relations and tourism management, overgrazing by domestic livestock remains a major

threat to thee property requiring an immediate response. Furthermore, most of the detailed provisions in the General Management Plan (GMP) remain to be implemented, including effective tourism management. It should also be noted that the current GMP (2009-2019) only covers less than 30% of today's park surface area, and hence there is a need to start considering revising the GMP. The elaboration of the next GMP provides an opportunity to take stick of implementation and consideration of lessons learned in the version which will guide the subsequent decade.

FULL ASSESSMENT

Description of values

Values

World Heritage values

▶ **Dramatic mountain scenery**
Criterion:(vii)

The park occupies a stretch of about 35 km along the dramatic northern escarpment of the Simien massif, with a high plateau at around 4,000m.a.s.l. altitude, dropping precipitously through a series of steep forested gorges, massive cliffs and spectacular outlying inselbergs and rock outcrops (SoOUV, 2011). Ethiopia's highest peak (Ras Dejen, 4,540 m.a.s.l.) has been included in the extended national park boundary, which is the area the World Heritage Committee has requested to be added to the property.

▶ **Endemic plant communities**
Criterion:(x)

The flora is exceptionally diverse and includes communities characteristic of different altitudinal zones from around 1,800 to above 4,000m.a.s.l. Communities include montane forests, tree heather forests, high altitude grasslands and Afro-alpine communities. The higher Afro-alpine communities are especially rich in endemic species, including the conspicuous giant Lobelias and red-hot pokers (Kniphofia spp.), while 10 species of grass (19% of the total) are endemic to the Simien Mountains (SoOUV, 2011).

▶ **Endangered and endemic mammals**
Criterion:(x)

Flagship species of large mammal include the Walia ibex (Capra walie, EN),

Ethiopian wolf (Canis simiensis, EN) and Gelada (Theropithecus gelada), all endemic to the Ethiopian highlands. The endangered Walia ibex is restricted to the Simien Mountains, where populations are understood to be stable and possibly increasing. The endangered Ethiopian wolf is the world's rarest canid and although it also occurs in a small number of other locations in the Ethiopian highlands, Simien is one of its last remaining strongholds along with the Bale Mountain. Other readily observed large mammal species include golden jackal (Canis aureus), klipspringer (Oreotragus oreotragus), bushbuck (Tregalaphus scriptus), serval (Felis serval), spotted hyena (Crocuta crocuta), black and white colobus (Colobus guereza), and anubis baboons (Papio anubis) (GMP 2009-2019).

▶ **Rare & Endemic birds**
Criterion:(x)

Over 200 species of birds are recorded in this BirdLife Important Bird Area, including 16 species endemic to the Ethiopia/Eritrea highlands. The property is particularly rich in raptors and vultures including the important population of the bearded vulture (Gypaetus barbatus, NT) (SoOUV, 2011; BirdLife International, 2017).

Assessment information

Threats

Current Threats
High Threat

The main threats arise from the high levels of human activity surrounding the park and to a lesser extent within the property heavily affecting the entire property and the much larger national park. A large area of the property and the park is overgrazed by domestic stock with localised problems of soil erosion and widespread disruption of ecosystem function and wildlife habitats. There are now less than 200 households living illegally in the park, while numerous villages are located along the boundary using park resources mainly

for grazing and firewood. However, with the increasing human population growth around the property, the pressure on natural resources and the ecosystem is increasing. The extent of threat from Invasive Alien Species (IAS) is not currently known, but the new road development brings with it, potential risks of introducing and spreading IAS.

▶ Poaching

Low Threat
Inside site, throughout(>50%)

Poaching of large mammals for subsistence use is reported to be less of a threat, but in the past lead to a very severe reduction in Walia ibex numbers during the 1980s and early 90s (IUCN and UNESCO, 2010).

▶ Crops

High Threat
Inside site, localised(<5%)
Outside site

Some 1,200 hectares of the park is still under cultivation by about 200 households, and an estimated further 20,000 households are living along its periphery and engaged in a mixed crop-livestock farming system using park resources as grazing area. Sheet, rill and gully erosion commonly occur in areas subjected to cultivation (IUCN and UNESCO, 2010).

▶ Invasive Non-Native/ Alien Species

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

The threat from invasive alien species (IAS) has not been properly assessed, but was observed during the October 2009 mission (IUCN and UNESCO, 2010). The proposed road development through the property also has the potential to introduce IAS (IUCN, 2017).

▶ Roads/ Railroads

High Threat
Inside site, extent of threat not known

A main (unpaved) road runs through critical wildlife habitat in the middle of

the park, along the top of the escarpment, linking Debark with Mekane-Birhan. Electricity transmission lines were being installed along this road at the time of the last monitoring mission in October 2009 (IUCN and UNESCO, 2010), and a telecommunication tower was set up at Buyit Ras in close view of the Simien Lodge. A new road, for which construction started in 2012, will be mostly located outside of the National Park but its middle section of the road will run through the Park. The current existing road will not be decommissioned. The delay in constructing the road was mainly capacity limitations of the local companies engaged in the construction. The new road construction is expected to be completed within a maximum of two years. Thus, the old road which goes inside the park will be used for park management and tourism. The electric transmission line is also expected to follow the new road.

► Other Ecosystem Modifications

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

Extensive human-induced soil degradation has resulted from poor cultivation techniques and overgrazing lasting since several decades to centuries (Hurni and Ludi, 2000; IUCN and UNESCO, 2010). Through the voluntary relocation of about 420 households up to 750 ha of cultivated land has been abandoned in 2016, thereby reducing soil erosion considerably. Nevertheless, widespread soil degradation as a result of century-old soil erosion remains for many decades to centuries to come, as soil regeneration is extremely slow at these altitudes.

► Other Ecosystem Modifications

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

With the exception of a few currently effective ‘no grazing’ zones at the top of the escarpment around Chennek and Sankaber, over 60% of the park is subject to heavy grazing pressure from massive numbers of sheep, goats and other stock belonging to herders around the park who bring their animals into the park. The constant presence of high densities of domestic stock, and the resulting overgrazing reduces the amount of habitat available for key wildlife species (e.g. Walia ibex avoid disturbed areas) and diminishes its

capacity to support key species such as the Ethiopian wolf (whose rodent prey are also dependent on grass) (IUCN and UNESCO, 2010). Overgrazing has led to almost complete disappearance of small mammals, particularly rodents (Nievergelt, 2012). The necessary financial means to implement the grazing reduction strategy, and in particular developing a zoning scheme in an integrated approach with participation of local stakeholders have been lacking in 2012 (UNESCO, 2013), but were underway in 2015 (UNESCO, 2016).

► Housing/ Urban Areas

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

586 households (3,223 people) were counted in 9 villages within the property at the time of a household survey in 2006 (IUCN and UNESCO, 2010) and many others residing nearby used the park’s land and resources for cultivation, grazing and resource collection. In 2015/16, the about 420 households of Gich Village were voluntarily relocated from the core area of the property to the margins of the nearby town of Debark, for seeking alternative livelihoods and leaving their cultivated and grazed land to regenerate. Through this, also grazing pressure was reduced, although it remains as a main threat across most of the property.

► Logging/ Wood Harvesting

High Threat
Outside site

The high density of people living on or near the park and the local scarcity of wood, combine to create very high pressure on forests and trees, especially the tree heathers forests and Hypericum thickets at higher altitudes (IUCN and UNESCO, 2010).

Potential Threats

High Threat

Human population increase around the park is a current threat as well as a long-term potential threat, most likely to create ever-increasing resource pressures if not properly managed. Growth in tourism provides income generation opportunities but needs to be well planned and managed to

minimize potential negative impacts. The anticipated effects of already observable climate change, particularly increase in temperature will raise the altitudinal belts such as Erica woodlands with unknown effects on high altitude plant and wildlife communities. impact of climate change is already starting to be observed in terms of precipitation pattern changes and droughts.

► Tourism/ Recreation Areas

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

Badly planned tourism infrastructure could easily affect nature around the camping sites and the visual aesthetic along the top of the escarpment (IUCN and UNESCO, 2010). Potential eco-lodge development inside the park will need to be clarified as part of park management. Unless better planned and managed tourism infrastructure and impacts could further affect the natural values around the camping sites and the exceptional landscape beauty along the top of the escarpment (IUCN and UNESCO, 2010; IUCN, 2017). A new tourism lodge has recently been constructed and further lodges have been proposed inside the Park (IUCN, 2017). However these developments appear to be incompatible with the General Management Plan, which explicitly states that “new infrastructure should be built outside the national park (GMP 2009-2019), and the applicable law (“constructing roads or other structures” is a “prohibited activity” according to Regulations No. 163/2008) (IUCN, 2017).

► Habitat Shifting/ Alteration

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

Increasing temperatures as a result of climate change is expected to shift plant and animals communities to higher ground, and is likely to reduce the amount of suitable habitat available to species that presently occur at the higher elevations, particularly the Ethiopian wolf (IUCN and UNESCO, 2010). An upward shift of the treeline by about 100 elevation metres was observed since the beginning of the 20th century (Hurni, 2005). Precipitation patterns have changed noticeably, especially reduced snowpacking resulting in

unprecedented spring droughts (IUCN, 2017).

► Other Activities

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

The human population in and around the property is increasing rapidly at a rate of ca. 2% p.a., creating ever-increasing resource pressures, such as overgrazing, firewood collection and cultivation (PaDPA, 2007). Land that was previously unattractive for agriculture is increasingly attracting people and being converted for agriculture.

► Tourism/ Recreation Areas

Low Threat
Outside site

Although tourism brings its benefits such as job opportunities and capacity building, it also not compatible with the General Management Plan. Much of the tourism infrastructure is in need of major re-investment and many require greater environmental considerations. Concerns have been raised regarding the impact of tourism on water supply and disposal of solid and liquid waste.

Protection and management

Assessing Protection and Management

► Relationships with local people

Some Concern

Local relations have seen an improvement following the transfer of management authority from federal level to the Amhara Regional State Government in 1997, a year after the property was inscribed on the List of World Heritage In Danger. Austrian-funded project support since 1997 has facilitated this improvement, financing consultative management planning processes and boundary re-alignment and demarcation as well as direct benefits aimed at reducing community dependence on park resources (such as firewood, grazing). Volunteer community guards have been recruited and

trained in most of the neighbouring communities and now actively support conservation (IUCN and UNESCO, 2010).

► Legal framework

Some Concern

The national park was established in 1966 and first gazetted in 1969, primarily to save the locally endemic Walia ibex from imminent extinction from overhunting.
Following the voluntary relocation of 418 households in 2016, less than 200 households are currently living illegally inside the park. Most of the afro-alpine meadows are still subject to heavy grazing pressure from domestic stock. The national park boundaries were both aligned and significantly expanded (Simien Mountains National Park Designation Council of Ministers Regulation No. 337/2014). The regulation came into force with the publication in the Federal Negarit Gazette in February 2015. The World Heritage property boundaries have however remained unchanged although the Committee has repeatedly requested the State Party to align the property boundaries with that of the new national park boundaries.

► Enforcement

Some Concern

Poaching is mostly but not fully under control. Grazing and cultivation are both formally illegal so there is a question about law enforcement. On the other hand, the legal framework itself may be unrealistic, and lack enforcement to respond to this very challenge.

► Integration into regional and national planning systems

Mostly Effective

From 1996 to 2009 the management of the property was under the authority of the Amhara Regional National State, enabling the establishment of much closer links than existed previously between the various local and regional stakeholders. In 2009 the re-constituted (Federal government) Ethiopian Wildlife Conservation Authority (EWCA) took control, and most park staff were transferred to the new authority, providing necessary continuity in management, regional and national integration. A ‘technical modality’ has been established to guide collaboration between State agencies and EWCA

(State Party of Ethiopia, 2012). Closer collaboration between federal and regional authorities is however essential to improve park management and tackle the pressing issues of settlement and unsustainable use.

► Management system

Mostly Effective

From 1996 to 2009 the management of the property was under the authority of the Amhara Regional National State, enabling the establishment of much closer links than existed previously between the various local and regional stakeholders. In 2009 the re-constituted (Federal government) Ethiopian Wildlife Conservation Authority (EWCA) took control, and most all the park staff were transferred to the new authority, providing necessary continuity in management, regional and national integration. A ‘technical modality’ has been established to guide collaboration between State agencies and EWCA (SP Report, 2012). Closer Strong collaboration between federal and regional authorities is however essential to improve park management and tackle the pressing issues of settlement and unsustainable natural resource use.

► Management effectiveness

Mostly Effective

Anti-poaching patrols and community participation efforts have been effective in protecting the key endangered large mammals. Management has been able to start tackling some of the factors affecting the integrity of the property and reverse the pervasive negative impacts of settlement, crop cultivation and excessive levels of livestock grazing.

► Implementation of Committee decisions and recommendations

Serious Concern

The property was inscribed on the List of World Heritage In Danger in 1996 and was removed from it only in 2017 against IUCN’s recommendation. There is widespread agreement that sustained and long-term efforts are needed to address the multiple current and anticipated threats. Despite the Committee's repeated requests to submit a significant boundary modification request to align the property boundaries with that of the expanded national park boundaries, no progress has been made by the State Party. Overgrazing within the property and the national park, support to the Gich Village

community now settled in Debark Town require further focus.

► Boundaries

Some Concern

The national park boundaries are demarcated with concrete beacons, including 300 new beacons established around the perimeter of the park extensions, in parts following agreement with local communities on their location. Revision of the park boundary involves (a) exclusion of some areas near the periphery of the existing park that have been heavily settled and (b) the addition of four elongated sectors each encompassing a mountain ridge (including Ethiopia's highest peak Ras Dejen, 4,540 m.a.s.l.) or a steep section of the escarpment. These extensions are all relatively long and narrow, so the configuration of the extended park has a very high boundary to area ratio, with all the management and law enforcement challenges such a plan entails. Additional work is needed on further demarcation of intermediate sections of the new boundary line, and accurate GPS recording and mapping of some parts of the revised boundary. Once the boundary modification dossier is finalized, the State Party is expected to submit it to the World Heritage Committee (State Party of Ethiopia, 2015).

► Sustainable finance

Some Concern

Between 2010/11 and 2014/15 the park generated the equivalent of approximately US$ 180,000 in direct revenues, while local communities and tour operators generated about US$ 255,000, including a considerable increase in the last two years of the observed period (State Party of Ethiopia, 2016). The government recurrent budget was equivalent to approximately US$ 120,000 (excluding staff costs) (State Party of Ethiopia, 2012) but trends of such efforts are needed for a meaningful assessment. For relocation and compensation of the 418 households of Gich Village, the government allocated the equivalent of US$ 7.8 million in two budget years (SP report 2016). Significant additional funds were provided by development partners, notably the Austrian Development Cooperation and African Wildlife Foundation. However, capital funding for major necessary investments to develop and implement livelihood restoration plan for the relocated households at Gich village and the park neighbouring community, and the

recently developed grazing pressure reduction strategy implementation may require significant amount of funding support from the international community.

▶ Staff training and development

Mostly Effective

A wide range of training opportunities have been provided for staff and local community stakeholders since 1997 through Austrian-funded project support, African Wildlife Foundation, Frankfurt Zoological Society and other donors. Since 2009, EWCA has undertaken a ‘Business Process Re-engineering’ activity involving staff re-structuring, recruitment of technical specialists and further training (State Party of Ethiopia, 2012) although further efforts to increase staffing and training are required (IUCN, 2017). There are currently over 100 staff including 45 community scouts recruited from local communities.

▶ Sustainable use

Some Concern

Resource use within the property seemed a bit high, particularly the afro-alpine grassland. Indicators of progress towards adequate levels of ecological restoration to allow removal from the List of World Heritage in Danger were established by the 2009 IUCN/UNESCO Reactive Monitoring mission, while considerable progress in achieving these targets has been reported in recent years. There is nevertheless a desperate need to achieve acceptable levels of grazing, whilst important to note that zero-grazing as noted in the current Grazing Pressure Reduction Strategy appear untenable.

▶ Education and interpretation programs

Mostly Effective

Community-based education and awareness programmes have been a central element of the Austrian-funded integrated development projects since 1997 and have clearly had a major impact in gaining the support of local communities for the national park.

▶ Tourism and visitation management

Some Concern

Tourism development in the Simien Mountains is constrained by a number of challenges including lack of skilled man power, limited capacity of guides and service providers, lack of standard tourism facilities and park and park management infrastructures. Thus, a Tourism Development Plan for the park was produced in 2014 by African Wildlife Foundation in collaboration with the Ethiopian Wildlife Conservation Authority (EWCA) with full participation public and private organisations. Tourism in the Simien Mountains is creating reasonable income for the government and the local community compared to other protected areas in the country.. There was a ten-fold increase in visitor numbers, from 1,825 in 2000-01 to 17,556 in 2010-11 (State Party of Ethiopia, 2012) and over 20,000 in 2013/14 and 2014/15 (State Party of Ethiopia, 2016), with half of the income contributed to local economy (approx. US$ 250,000 equivalent in 2010-11) attributable to local people who provide mules, guiding and other services. A well-run private lodge concession and provision of basic overnight accommodation at key locations on the main trails has facilitated tourism development. Since mid-2016 tourist numbers dropped sharply in response to security concerns and the declaration of the state of emergency in Ethiopia, ongoing at the time of writing.

► Monitoring

Some Concern

Simultaneous fixed-point counts of Walia ibex along the cliff-tops, and fixed-point photography of habitat change over 30 years resulting from cooperation with Swiss researchers (Nievergelt et al., 1998) provide a strong basis for understanding the ecological changes over this period, and the dramatic deterioration in wildlife habitat quality. There appears to be widespread agreement on an overall stable to positive trend of Walia ibex in the national park, and conservation prospects significantly enhanced due to the expansion of the national park boundaries and efforts to start reducing the competition with domestic livestock (IUCN, 2017). Ethiopia wolf populations are understood to be stable and probably positive. The exact numbers of gelada are unknown but there is a general consensus that its population trend is stable to slightly increasing within the national park (IUCN, 2017).

► Research

Some Concern

Long-term collaboration with Swiss researchers has been ongoing since the early 1970s (Nievergelt et al, 1998; Hurni and Ludi, 2000). Researchers from the University of Oxford are undertaking research under the Ethiopian Wolf Conservation Programme (www.ethiopianwolf.org). EWCA has deployed park ecologists and veterinarians, and the General Management Plan (2009-19) establishes ‘ecological management’ as one of the five main programme areas with emphasis on monitoring and research to support management decision-making. However, implementation remains limited due to the current lack of capacity at park level and insufficient resources (State Party of Ethiopia, 2012).

Overall assessment of protection and management

Serious Concern

The reconfiguration of the national park boundaries, more than tripling its surface area to around 42,000 hectares is probably the most significant step to invest in the long-term viability of the national park. As requested by the World Heritage Committee, the new boundaries should be harmonized with the formal World Heritage boundaries via a significant boundary modification. Despite considerable recent improvements in protection and management, which have contributed to a stabilisation of the populations of the park’s highly endangered flagship mammal species and some progress in terms of community relations and tourism management, overgrazing by domestic livestock remains a major threat to thee property requiring an immediate response. Furthermore, most of the detailed provisions in the General Management Plan (GMP) remain to be implemented, including effective tourism management. It should also be noted that the current GMP (2009-2019) only covers less than 30% of today's park surface area, and hence there is a need to start considering revising the GMP. The elaboration of the next GMP provides an opportunity to take stick of implementation and consideration of lessons learned in the version which will guide the subsequent decade.

► Assessment of the effectiveness of protection and management in

addressing threats outside the site

Serious Concern

Overgrazing inside the property and the national park requires much attention. No management or mandate exists outside of the national park.

► Best practice examples

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State and trend of values

Assessing the current state and trend of values

World Heritage values

► Dramatic mountain scenery

Low Concern
Trend:Stable

The scenic values of the site, particularly the views along the top of escarpment, have generally been maintained in recent years, although they are significantly impacted by the main road and associated infrastructure which brings heavy traffic, dust, noise and other disturbance to the core area of the park. A new road is expected to improve the situation by taking much of the existing traffic outside the park.

► Endemic plant communities

High Concern
Trend:Improving

Heavy grazing pressure continues to affect plant communities across most highland parts of the park, while the still persisting area of land under cultivation is thought to be stable. The park areas where grazing restrictions are enforced show gradual increase over time and endemic plant communities are recovering, but other areas where firewood harvesting continues, and grazing prevents regeneration of tree heather forests which are getting gradually more senescent and vulnerable (IUCN and UNESCO,

2010). The abandonment of cultivation of Gich Village in the Upper Jinbar Valley in 2016 provides a best practice example of reducing pressure and enabling plant communities to regenerate.

► Endangered and endemic mammals

High Concern
Trend:Stable

The trend of Walia ibex and Ethiopian wolf populations are reported to show upward increase in the past ten to fifteen years, and are now at levels approximately four times those recorded in 1994. But this increase occurred exclusively in the relatively open ranges south-east of Chennek where Walias became habituated. In the biologically richer core area around the Gich Plateau, Walias are rarer and shier (Nievergelt, 2012). Vaccination of domestic animals in neighbouring communities is being carried out to prevent disease transmission to wildlife which could have a devastating impact on these highly endangered species. The area of protected suitable habitat has been increased dramatically through extension of the park. Ethiopia reported to be looking for funding to commission a detailed independent scientific study to assess the current status, composition and distribution of Walia ibex and Ethiopian wolf in its 2016 state of conservation report. Gelada is a somewhat less prominent flagship next to the Walia ibex and Ethiopian wolf, but deserves equal management attention considering their important ecological role, conservation value and exceptional attractiveness for wildlife viewing. As for other species, populations of some small mammals, especially the diurnal and easily visible Abyssinian grass rat (Arvicanthis abyssinucus), have declined due to overgrazing around Gich Plateau (Nievergelt, 2012).

► Rare & Endemic birds

Low Concern
Trend:Data Deficient

Probably fairly stable, but there is insufficient knowledge of the park’s birds. Of the 35 Important Bird Area ‘trigger species’ listed by Birdlife International (BirdLife International, 2012), 33 are classed as being of ‘least concern’ while two are ‘near threatened’ (but widespread outside Simien).

Summary of the Values

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

High Concern

Trend: Improving

The scenic values of this dramatic mountain escarpment with its far-reaching views are maintained, although they are visually affected to some extent by a major road and a parallel power line which pass through the core of the property. The biodiversity values have been severely impacted on by high levels of human activity, including the destruction and degradation of important and once much larger forests, long-term settlement, cultivation and high levels of grazing by domestic stock. Wildlife populations, including the park's highly endangered large mammals (Walia ibex and Ethiopian wolf) as well as the endemic gelada, are reported to be stable thanks to the efforts of the park's management and its partners. The park was inscribed on the List of World Heritage In Danger in 1996, and it was recently removed from that list, much more remains to be done to conserve and restore the biodiversity values and ecological integrity.

Additional information

Benefits

Understanding Benefits

▶ **Traditional agriculture, Livestock grazing areas**

Traditional agriculture consists of a combination of cereal cultivation and livestock for subsistence; both land uses are being discouraged and most human residents have been voluntarily relocated in 2016 to areas outside the park, in particular to the nearby town of Debark. What remains is high intensity livestock rearing, particularly in the higher altitudes of the park between 3,700 and 4,200 m.a.s.l. Overgrazing and associated degradation of

biodiversity are increasing and need to be urgently addressed.

Deforestation has become rare in the park, while afro-alpine grasslands are heavily overgrazed in most parts. Soil erosion from cultivation and resulting sedimentation of rivers is decreasing due to the relocation of human land users to outside the park and leaving their cultivated land fallow.

► Access to drinking water

The 41,200 hectares of the park contribute between 40-160 million m3 of runoff water to the Tekeze-Atbarah Basin. These can be used for irrigation in the lowland areas of the basin.

The total annual runoff from the park area is estimated by taking an average 1000 mm annual rainfall and a runoff rate of 10-40%, based on first results of the Simen High Mountain Observatory of the Water and Land Resource Centre and EWCA. Climate change may increase runoff due to higher rainfall; while land use change may decrease runoff due to vegetation growth once grazing is reduced.

► Outdoor recreation and tourism, Natural beauty and scenery

The site offers unique benefits for recreation and tourism both to local and international tourists.

Tourism and recreational impacts need to be planned carefully to avoid overexploitation along tourist routes and spots.

► Importance for research, Contribution to education, Collection of genetic material

Simien is a mountain system where natural altitudinal vegetation belts can still be found in well-preserved transects at elevations between about 2,000 and almost 4,500 m.a.s.l. These are unique learning grounds for scientists and students at all levels, as well as for visitors. Biodiversity offers genetic material particularly of species endemic to Simien, such as the Walia ibex. Significant local knowledge exists in inhabiting a harsh environment as the Simien Mountains.

Overgrazing if not controlled will change the afro-alpine grassland composition even further, while otherwise the habitats are well preserved at

present.

- **Carbon sequestration, Soil stabilisation, Flood prevention, Pollination**

  Environmental services are improving as a consequence of park management and voluntary relocation of most human land users to town areas outside the park. Resulting re-vegetation will lead to soil conservation and carbon sequestration particularly by building up soil organic carbon at altitudes higher than about 2500 m asl. Peak runoff is expected to regulate through this land use change. The park's unique biodiversity provides a source of pollination to neighbouring areas, which are all heavily used by local farming.

  Overexploitation of afro-alpine grasslands above about 3,500 m.a.s.l. remains high, but may decrease when strategies to reduce grazing are introduced and become effective.

- **Collection of timber, e.g. fuelwood, Sustainable extraction of materials (e.g. coral, shells, resin, rubber, grass, rattan, etc)**

  Grass for thatching and wood resources are extracted from the site by human land users living nearby the boundaries. This is considered sustainable except for spots in reach of larger settlements along the boundaries.

  Collection of materials may be allowed but need careful monitoring and appropriate action by management, including zonation and user agreements.

- **Direct employment, Tourism-related income**

  Local people can get additional income to farming by providing their services to tourism groups, such as pack animals, carrying goods, and accompanying tourist groups as supporting staff. The park provides local employment particularly to wildlife guards.

Summary of benefits

Benefits of the property and the larger national park are manifold but remain moderate in economic terms. Food, water, recreation, materials such as grass

and wood, as well as knowledge are nevertheless important. Among the most important are tourism options for local and international visitors, knowledge generation for scientists and students, while for local land users, the provision of additional income through employment may be considered significant. At the local level, reaching an agreement on reasonable harvesting and grazing levels would appear to be the most sustainable approach.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	African Wildlife Foundation (AWF)		Support of the alternative livelihood strategy, improving the tourism and park management infrastructure, capacity building for private and public organisations, and the Grazing Pressure Reduction Strategy (GPRS) development and implementation.
2	University of Oxford (UK), Wildlife Conservation Research Unit & Ethiopian Wolf Conservation Programme (EWCP)		Research and monitoring of Ethiopian wolf
3	SDPASE, GEF/UNDP		Capacity building support to EWCA, training, management and business planning
4	Water and Land Resource Centre, Addis Ababa University and University of Bern	From: 2013	The WLRC established a Simen high-mountain observatory in various parts of the site, including climate stations and hydro-sedimentology in the Upper Jinbar Valley, an area recently undergoing land use change from cultivation to regeneration areas. Monitoring is ongoing.
5	Pro Semien Foundation, Bern and Zürich		Pro Semien Foundation was established in 1974 by a group of Swiss scientists. Since then it provided support to scientific studies, monitoring and mapping, but also for boarding children of the park staff. The Foundation is located at the Centre for Development and Environment (CDE), University of Bern

Compilation of potential site needs

№	Site need title	Brief description of potential site needs	Support needed for following years
1	Implement Management Plan	Consolidation of the implementation of the Management Plan, evaluation of the implementation as a basis for the elaboration of the next GMP. Large-scale external support required (not yet quantified)	
2	Alternative Livelihoods Strategy, April 2007	Alternative livelihood strategy completed in April 2007 needs updating.	
3	Grazing Pressure Reduction Strategy, July 2007	Grazing Pressure Reduction Strategy updated in October 2015: 78 page document details a 3-year intervention	
4	Wildlife monitoring and joint assessment of populations of highly endangered species such as Walia ibex and Ethiopian wolf	Wildlife populations are understood to be stable, while an overall assessment and localisation of endangered species are needed, including detailed mapping of observations, as the distribution and trends remain uncertain. EWCP, FZS, University of Michigan and University of Oxford have engaged in recent wildlife count studies.	From: 2017 To: 2020

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