IUCN Conservation Outlook Assessment 2017 **(archived)**
Finalised on 10 November 2017

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

Sagarmatha National Park

SITE INFORMATION

Country:
Nepal
Inscribed in: 1979
Criteria:
(vii)

Site description:

Sagarmatha is an exceptional area with dramatic mountains, glaciers and deep valleys, dominated by Mount Everest, the highest peak in the world (8,848 m). Several rare species, such as the snow leopard and the lesser panda, are found in the park. The presence of the Sherpas, with their unique culture, adds further interest to this site. © UNESCO

SUMMARY

2017 Conservation Outlook

Significant concern

Sagarmatha National Park was one of the earlier sites to be inscribed onto the World Heritage List and remains a globally iconic place of scenically arresting grandeur. The property has become an increasingly popular tourism destination especially among trekkers and mountaineers who today take advantage of the improved access afforded by aircraft. The property is suffering from a suite of long-standing and growing threats related to tourism impact (uncontrolled development, pollution, waste management, energy demand, and intrusive aircraft), deforestation, unsustainable resource extraction and disruption to Sherpa social structures. Climate change impacts are poorly understood but known to be affecting fire frequency and severity as well as precipitation patterns which heighten the risk from glacial lake outburst flooding (GLOFs). Management responses to the problems are commendable but failing to keep pace with the pressures on the park. SNP awaits a revised management plan which is especially critical to specify how tourism should be managed. The long running legal case with the Kongde View Tourist Resort, built in 2005, adds to the impression that tourism is not being effectively planned and managed.

Current state and trend of VALUES

Low Concern
Trend: Deteriorating

The property is inscribed in view of its spectacular high mountain landscape, its scenic grandeur and the celebrated presence of the world’s highest mountain peak. These World Heritage values remain intact but are compromised. Tourism over development and use; water pollution and solid waste impacts are combining to degrade the natural setting and values of SNP. The protracted legal dispute over the Kongde View Resort continues to be unresolved. The unauthorized operation of this facility at 4,200m above sea level in the property is inappropriate and creates an unfortunate precedent for other tourism

operators.
Climate change is adding an unknown variable which is challenging stretched management capacity.

Overall THREATS

High Threat

A number of long-standing and mounting threats exist within the property including those arising from increasing tourism; firewood collection in some areas; localized quarrying and forest fire. The development of a sizable tourism resort at 4,200m asl within the park is at the centre of rising tourism impacts. This development is the subject of a protracted legal challenge.
Climate change impacts are of particular concern in the high mountain ecosystems of the property and have the potential to seriously impact on fire and hydrological regimes, biodiversity and other natural processes.

Overall PROTECTION and MANAGEMENT

Some Concern

SNP’s high mountain ecosystems are shaped by micro-environmental conditions, highly fragile and vulnerable to irreversible degradation (Daconto, 2007). Concerns relating to tourism planning and development including the unresolved legality of the Kongde View Resort as well as the management of increasing tourist numbers and their impacts are all taxing management capacity. Added to this are concerning reports of declining staffing and funding for the park. Significant research and international attention has been focused on SNP, however, a holistic approach to addressing the suite of threats in relation to World Heritage values is needed.

FULL ASSESSMENT

Description of values

Values

World Heritage values

► **Dramatic high mountain scenery and superlative natural phenomena including the planet’s highest mountain**
Criterion:(vii)

Sagarmatha National Park (SNP) is an exceptional area of natural beauty with superb natural phenomena that includes dramatic mountains, glaciers and deep valleys. The area contains Mount Sagarmatha (Everest) which is the highest peak in the world (8,848 m) and seven other peaks other over 7,000m (UNESCO SoOUV, 2014)

Other important biodiversity values

► **Rare species**

SNP is home to several rare species including the snow leopard, the musk deer and the red panda, as well as containing the world’s highest ecologically characteristic flora and fauna. (UNESCO SoOUV, 2014)
The site is a World Wide Fund for Nature (WWF) priority ecoregion deeming it identified as representative of a unique area of biodiversity and therefore prioritized for conservation. (WCMC, 2011)

► **Geological values**

The area is one of the most geologically interesting regions in the world with

high, geologically young mountains and glaciers which contribute to the outstanding natural beauty of SNP with awe inspiring landscapes and scenery dominated by the high peaks and corresponding deeply-incised valleys (UNESCO SoOUV, 2014)

► **Important Wetland within the site**

The high altitude Gokyo and Associated Lakes in SNP were declared a RAMSAR site on 23/09/2007. (WCMC, 2011)

► **Sherpas and their influence of over 400 years on the site**

SNP has 10 villages housing over 3000 Sherpas who have inhabited the region for the last five centuries. There has been a continuation of Sherpa traditional practices both cultural and religious, which includes the restriction of animal hunting and slaughtering, as well as the protection of many sacred forests and other sacred natural sites, and traditional management of community forests and grazing areas. The entire national park is regarded by Sherpas as a sacred valley (beyul) in which all wildlife is protected. These practices strongly contribute to the successful conservation of SNP. (UNESCO SoOUV, 2014)

Assessment information

Threats

Current Threats

High Threat

Main current threats include increase in tourism and associated tourism infrastructure development. The continued operation of the Kongde View Resort within the property remains unresolved. This resort has been in operation since its construction in 2005 and legal proceedings have been on-going since 2007. The resort brings with it environmental impacts and the unresolved question of its legality sets a poor precedent for tourism

management within the site. Tourism numbers in general continue to steadily increase with resultant significant impacts from waste disposal, including litter and human waste. There is a steady increase in the numbers of trekkers to the highest parts of the park. Coupled with increasing tourism is the increasing use of helicopter access, and the unsustainable use of park resources for infrastructure.

▶ Tourism/ Recreation Areas

High Threat
Inside site

The reported continued operation of the Kongde View Resort within the property and the protracted legal process concerning its future has been a concern for a number of years. This matter remains unresolved since the construction of the resort in 2005 with legal proceedings within the Supreme Court of Nepal on-going for more than seven years. The unauthorized operation of this facility at 4,200m above sea level within the property is inappropriate and creates an unfortunate precedent for other tourism operators (IUCN SOC, 2014)

▶ Mining/ Quarrying

Data Deficient
Inside site

Significant amounts of rock extraction have taken place for use as building materials, mainly as a direct result of tourism pressures for construction of new infrastructure. Whilst the original park management plan advocated, as a condition of rock extraction, that rehabilitation and restoration planting be part of the approval process it appears that this has largely not been undertaken. (IUCN Stakeholder Consultation, 2014)

▶ Logging/ Wood Harvesting

High Threat
Inside site

Whilst it has been reported that there has been some decline in firewood collection, some of the highest forests closest to Mt Everest are reported to still be under severe threat from tourism development and village firewood use. The forests on the left bank of the Imja Khola (river) supply the major

village of Pangboche and all of the alpine hotels en route to Everest Base Camp. (IUCN Stakeholder Consultation, 2014). The State Party reports that the growing number of tourists puts pressure on the need for fuel wood for both cooking and heating and this may have a direct impact on existing forests. (SP Report, 2014)

▶ Flight Paths

Low Threat
Inside site

There has been an increase in the use of aircraft, in particular helicopters, due to an increase in the numbers of tourist who require access to the site. (IUCN Stakeholder Consultation, 2014). Increased use of aircraft impacts the visitor amenity of the site.

▶ Temperature extremes

Data Deficient
Inside site
Outside site

The State Party reports that an increase in temperatures due to global warming has resulted in an increase in the number of days without precipitation and coincides with an increase in forest fires particularly in the pine forests. (SP report, 2014)

▶ Solid Waste

High Threat
Inside site

The large increase in trekkers and mountaineers has created a need for more efficient means of human waste disposal however there is a lack of funding to meet this increasing need. The local NGO, Sagarmatha Pollution Control Committee (SPCC) is the body responsible for monitoring waste disposal and recycling by mountaineering expeditions as well as supporting base camp clean-up campaigns, village waste disposal and recycling programs, and the carrying out of environmental education programs. (IUCN Stakeholder Consultation, 2014; IUCN SOC, 2014)

▶ Identity/ Social Cohesion/ Changes in local population and community

Data Deficient
Inside site
Outside site

With a dramatic increase in tourism has come a change in the demographic profile of the traditional Sherpa residents of the park with many people relocating to Kathmandu as they have become wealthier from servicing tourism. This appears to have resulted in the remaining Sherpa population tending to be made up of older and younger people with fewer in the middle-aged bracket. (IUCN Stakeholder Consultation, 2104)

Potential Threats

Data Deficient

Climate change impacts on the high mountain ecosystems of the property remain poorly understood. Changes to temperature and precipitation regimes can seriously impact SNP's biotic and abiotic attributes. The threat of glacial lake outburst floods (GLOFs) on both humans and natural systems persists and could be exacerbated by climate change.

▶ Storms/Flooding

Data Deficient
Inside site
Outside site

The threat of glacial lake outburst floods (GLOFs) exists, in particular the Imja Tso (lake) on the Imja Glacier and the subsequent threat of flooding to downstream Sherpa communities. (IUCN SOC, 2014)

Protection and management

Assessing Protection and Management

▶ Relationships with local people

Some Concern

At the time of inscription there were approximately 2,500 Sherpa people living in the park. Their properties have been excluded from the park by legal definition. (IUCN Evaluation, 1979). Since that time there has been constant involvement and support of local communities in the field of conservation and management. A Park Advisory Committee, consisting of local leaders, village elders, head lamas and park authority representatives was established in 1982. (UNESCO SoOUV, 2014) but has not been active since the 1980s. The current (2007-2012) national park management plan recommends re-establishing the advisory committee.
Sherpa culture, including Buddhist values, traditions of protecting the region as a sacred valley, and still active community forest and pasture management systems, contributes strongly to conservation. The importance of tourism in the local economy has also encouraged Sherpas to help to protect the area. Men elected by village assemblies continue to take on the duties of coordinating the seasonal migration of livestock, preventing green wood cutting, protecting plantations and reporting poaching. They are authorized to prosecute and collect limited penalties from violators of the forest protection rules and to use the fines for community purposes (WCMC, 2011).
Concerns however remain regarding the impact of tourism on social cohesion among Sherpa and other ethnic groups. (IUCN Stakeholder Consultation, 2104)

► Legal framework

Mostly Effective

SNP was established on 19 July, 1976 under the National Parks and Wildlife Conservation Act and is managed by the National Park and Wildlife Conservation Office of the Department of National Parks and Wildlife Conservation within the Ministry of Forests, Government of Nepal.
Effective legal protection remains in place under the National Park and Wildlife Conservation Act 1973 and the Himalayan National Park Regulations 1978 (UNESCO, 2014).

► Enforcement

Data Deficient

Data deficient

▶ Integration into regional and national planning systems

Data Deficient

There is inadequate information available to assess the degree to which planning for the site is embedded within broader planning systems. The international popularity of SNP for trekkers and mountaineers makes it a noteworthy asset for Nepal’s national economy factoring it into national economic planning.

▶ Management system

Some Concern

SNP is managed by the National Park and Wildlife Conservation Office of the Department of National Parks and Wildlife Conservation within the Ministry of Forests, Government of Nepal. The site is subject to a Management Plan covering the SNP and Buffer Zone (2007-2012), however a proposed review of this plan to prepare a SNP Tourism and Management Plan for the period 2014-2018 is yet to be finalized. (IUCN SOC, 2014) (SP Report, 2014). This plan will be central to guide tourism management such that it is more sustainable.

▶ Management effectiveness

Data Deficient

There is inadequate information readily available to assess management effectiveness. It is recommended that a management effectiveness audit be undertaken as part of the management plan review. This should inter-alia consider an assessment of how well the property is being managed – primarily focusing on the extent to which the property is protecting world heritage values and achieving biodiversity conservation, social, and economic goals and objectives (IUCN Stakeholder Consultation, 2104)

▶ Implementation of Committee decisions and recommendations

Serious Concern

The WH Committee continues to express longstanding concerns about a

range of conservation issues and threats which are impacting the property and which have not been addressed. These include the still unresolved Kongde Resort development, as well as the need for the planned review of SNP Tourism and Management Plan for the period 2014-2018. Little progress have been made in understanding the impacts of climate change on the high mountain ecosystems of the property and the State Party is yet to submit a minor boundary modification to formally recognize the existing Buffer Zone of SNP as a buffer zone to the property (IUCN, 38COM Draft Decision, 2014).

► Boundaries

Some Concern

The property’s boundaries are clearly defined by national borders and physical divisions encompassing discrete physical entities. There is a buffer zone which was designated in 2002, but it is not yet part of the inscribed property (UNESCO, 2014). The World Heritage Centre and IUCN recommend the submission of a minor boundary modification to formally recognize the existing Buffer Zone of SNP as a buffer zone to the property consistent with the Operational Guidelines. (IUCN SOC, 2014)
Ecological connectivity is afforded through the establishment of the Makalu Barun National Park (1998) in the eastern region of the property and Gauri Shankar Conservation Area (2010) in the west. These additional sites, combined with the attachment of SNP’s northern region with Qomolongma Nature Reserve in the Tibetan Autonomous Region of the People’s Republic of China have added further protection to the values of the property (UNESCO, 2014)

► Sustainable finance

Some Concern

The Government of Nepal provides a regular budget for the management and protection of the property and buffer zone. The buffer zone Integrated Conservation and Development Programme (ICDP) and its related activities has been providing 30-50% of the park’s revenue to the local communities to boost the funding available. (UNESCO, 2104).
The State Party reports a number of training and capacity building initiatives that have directly contributed to significant increases in the annual park budgets. (IUCN SOC, 2012). However, IUCN has received reports of staff

reductions and funding shortfalls (IUCN SOC, 2014).

► Staff training and development

Some Concern

In 2003 the staff total for the Park was 38. At that time it was recognized that the staffing and training was inadequate. (WCMC, 2011). In addition a company of 250 soldiers from the Nepalese Army has been deployed for protection and law enforcement purposes. (UNESCO, 2014)
IUCN has received reports that staff turnover is high, and staff numbers are inadequate. (IUCN Stakeholder Consultation, 2014). There is a need for recruitment of Sherpa staff. As of 2013 only one park staff member was Sherpa.

► Sustainable use

Serious Concern

Issues related to tourism and sustainability are noted elsewhere. Current tourism use of the property is increasing and poorly regulated. Park materials are being unsustainably utilized to construct infrastructure.
Resource use by local communities is noted above under ‘relationships with local people’. Serious concerns have been raised regarding the levels of material being extracted through localized quarrying and the impacts of the collection of fuel wood on particular sites in the eastern part of the national park.
It has been reported that increasing numbers of tourists to the park has ‘immensely boosted the local economy and standard of living’ due to an increase in revenue. This has enabled better health, education, and infrastructure facilities to be funded. (UNESCO, 2014)

► Education and interpretation programs

Mostly Effective

There is a visitor center at Namche with information and interpretative services and a Sherpa cultural museum. A handbook was prepared for the park in 1986. (WCMC, 2011)

► Tourism and visitation management

Some Concern

The State Party recently reported that the Department of National Parks and Wildlife Conservation is 'working for the enhancement of tourism'. (SP Report, 2014). However, tourism, including tourism related waste such as non-biodegradable litter and human waste disposal, a reported increase in the number of trekkers and mountaineers, increasing use of helicopter access, and unsustainable use of park resources in infrastructure construction continue to be of major concern. This is exacerbated by the lack of a current tourism management plan.
Related to tourism use are also a range of social, cultural and livelihood impacts on Sherpa communities and other ethnic groups. (IUCN SOC, 2014)

▶ Monitoring

Mostly Effective

Monitoring is reportedly undertaken on habitat, endangered species, conservation education, buffer zone management, tourist arrivals and peak royalties with indicators having been established. (WCMC, 2011).

▶ Research

Mostly Effective

Extensive research in various fields has been undertaken for many years. These projects include studies of Sherpa culture; alternative sources of energy; ecosystems, reforestation and the introduction of alternative energy sources on natural forests; mountain building processes and climate change. (WCMC, 2011)
A wildlife field survey was undertaken in 2008, which found a number of snow leopards within the property, as well as increasing populations of the snow leopard's prey species. (IUCN SOC, 2010)
A recently published paper on the status of the site's key values was published in 2013. (IUCN Stakeholder Consultation, 2014)

Overall assessment of protection and management

Some Concern

SNP's high mountain ecosystems are shaped by micro-environmental conditions, highly fragile and vulnerable to irreversible degradation (Daconto,

2007). Concerns relating to tourism planning and development including the unresolved legality of the Kongde View Resort as well as the management of increasing tourist numbers and their impacts are all taxing management capacity. Added to this are concerning reports of declining staffing and funding for the park. Significant research and international attention has been focused on SNP, however, a holistic approach to addressing the suite of threats in relation to World Heritage values is needed.

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

Serious Concern

The main external threats relate to increasing tourism, climate change and use pressures from local communities within the property and in the buffer zone.
Tourism pressure arises from the site's iconic status and increasing popularity among international trekkers and mountaineers. Planning and management are inadequate to deal with this growing pressure.
The pressures from tourism development and poorly understood climate change impacts represent significant external threats that management is struggling to cope with.

State and trend of values

Assessing the current state and trend of values

World Heritage values

► **Dramatic high mountain scenery and superlative natural phenomena including the planet's highest mountain**

Low Concern
Trend:Deteriorating

The property is inscribed in view of its spectacular high mountain landscape, its scenic grandeur and the celebrated presence of the world's highest mountain peak. These World Heritage values remain intact but are compromised. There are two main areas of concern with regard to the values of the property. The first is the impact of the growing increase in tourist

numbers and the effects that this is having in regard to unregulated development and infrastructure; waste disposal and the exploitation of park materials (for example from quarrying) for building use. The second concern relates to the, as yet unknown, impacts of climate change on the high mountain ecosystems of the property. Climate change effects remain poorly understood, however, the threat of glacial lake outburst floods (GLOFs) continues to exist, currently focused on the Imja Tso lake on the Imja Glacier and the risk to downstream Sherpa communities. The State Party reports an increase in forest fires and reduced snow cover which they attribute to a rise in temperature. (IUCN SOC, 2014)

Summary of the Values

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

Low Concern

Trend: Deteriorating

The property is inscribed in view of its spectacular high mountain landscape, its scenic grandeur and the celebrated presence of the world’s highest mountain peak. These World Heritage values remain intact but are compromised. Tourism over development and use; water pollution and solid waste impacts are combining to degrade the natural setting and values of SNP. The protracted legal dispute over the Kongde View Resort continues to be unresolved. The unauthorized operation of this facility at 4,200m above sea level in the property is inappropriate and creates an unfortunate precedent for other tourism operators.
Climate change is adding an unknown variable which is challenging stretched management capacity.

► Assessment of the current state and trend of other important biodiversity values

Data Deficient

Trend: Data Deficient

There is a lack of data on the status of the rare species in the park however it has been reported that the Musk deer population is under growing threat from poachers (IUCN Stakeholder Consultation, 2014)

With regard to Sherpas and their influence over 500 years on the site, the dramatic increase in tourism has brought about a change to the demographic profile of the Sherpa, and with it a loss of some aspects of traditional Sherpa culture. The running of hotels, guesthouses and other tourism related businesses initially by Sherpas and lately the leasing of these facilities to non-Sherpas has resulted in considerable amounts of revenue being raised. This increase in wealth has allowed many Sherpas to relocate to Kathmandu, where the quality of life is more comfortable.
The Management Plan fails to recognize fully the status of the Sherpa people as an indigenous people and the significant conservation contributions they make through protection of wildlife, sacred places, and community-managed forests and grazing lands. Related to tourism use are also a range of social, cultural and livelihood impacts on Sherpa communities and other ethnic groups. (IUCN SOC, 2014)

Additional information

Benefits

Understanding Benefits

► History and tradition, Wilderness and iconic features

The park is also of major religious and cultural significance in Nepal as it abounds in holy places such as the Thyangboche Monastery and is also the homeland of the Sherpas whose way of life is unique, compared with other high-altitude dwellers. The intricate linkages of the Sherpa culture with the ecosystem are a major highlight of the park and they form the basis for the sustainable protection and management of the park for the benefit of the local communities. There are many sacred mountains, forests, and other natural sites and other cultural sites within the national park, and the entire region is considered to be a sacred valley (beyul) by the Sherpa people.

► Outdoor recreation and tourism

The Sagarmatha National Park includes the highest point of the Earth's surface, Mount Everest (Sagarmatha) at 8,848 m. The park covers an area of 124,400 hectares. Along with seven other peaks over 7,000 meters. The park is a well-known destination for mountain tourism and tourism has increased from 3,600 visitors in 1979 to over 25000 in 2010 and is still on the increase.

Summary of benefits

SNP includes the highest point on the Earth’s Surface; Mount Sagarmatha (Everest; 8,848 m).The park covers an area of 124,400 hectares in the Solu-Khumbu district of Nepal. It is without question a globally revered site, largely inaccessible yet of enormous economic benefit to the Sherpa people and Nepal as a country. The site’s benefits derive from the intimate links between nature, cultural and spiritual values set within a spectacular mountain landscape.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	Sagarmatha Pollution Control Committee		Trail and base-camp clean-up, recycling, village waste management, environmental education, tourism education
2	Khumbu Sherpa Culture Conservation Society		Programs to promote strengthening of linkages between culture and conservation, including traditional protection of sacred forests and other sacred natural sites and management of community forests and grazing areas. This includes emphasis on youth programs and inter-generational dialogues.

REFERENCES

№	References
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2	IUCN (1979) Evaluation Report Sagarmatha National Park IUCN Gland, Switzerland
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4	IUCN (2014) State of Conservation Report Sagarmatha National Park IUCN, Gland, Switzerland.
5	IUCN (2104) IUCN Stakeholder Consultation IUCN Gland, Switzerland.
6	State Party of Nepal (2014) State Party Report Sagarmatha National Park
7	UNEP WCMC (2011) Factsheet Sagarmatha National Park
8	UNESCO (2014) Statement of Outstanding Universal Value Sagarmatha National Park http://whc.unesco.org/en/list/120 Accessed May 2104
9	UNESCO World Heritage List) Accessed May 2014