IUCN Conservation Outlook Assessment 2014 **(archived)**
Finalised on 26 May 2014

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

Tajik National Park (Mountains of the Pamirs)

SITE INFORMATION

Country:
Tajikistan
Inscribed in: 2013
Criteria:
(vii) (viii)

Site description:

Tajikistan National Park covers more than 2.5 million hectares in the east of the country, at the centre of the so-called “Pamir Knot”, a meeting point of the highest mountain ranges on the Eurasian continent. It consists of high plateaux in the east and, to the west, rugged peaks, some of them over 7,000 meters high, and features extreme seasonal variations of temperature. The longest valley glacier outside the Polar region is located among the 1,085 glaciers inventoried in the site, which also numbers 170 rivers and more than 400 lakes. Rich flora species of both the south-western and central Asian floristic regions grow in the Park which shelters nationally rare and threatened birds and mammals (Marco Polo Argali sheep, Snow Leopards and Siberian Ibex and more). Subject to frequent strong earthquakes, the Park is sparsely inhabited, and virtually unaffected by agriculture and permanent human settlements. It offers a unique opportunity for the study of plate tectonics and subduction phenomena.
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SUMMARY

2014 Conservation Outlook

Good with some concerns

The greatest protection for the core property stems from its remoteness and impenetrable mountain wilderness character. This is coupled with legal protection and the dedication of a small management staff. The World Heritage values are currently in a good and stable state but management effectiveness is hampered by inadequate budget for staff, training, and equipment. The long-term outlook for the Pamir glaciers through accelerated global warming is of significant concern.

Current state and trend of VALUES

Good
Trend: Stable

The outstanding universal value and natural attributes of the property are assessed as currently being in a good and stable state. Their protection and management, which includes active engagement with the local communities, presents no current or foreseeable major problems or concerns. The scenic and aesthetic values are essentially intact throughout the property. The outstanding geological features are protected and on-going natural processes in the development of landforms and other significant geomorphic features, including the influences of global warming, are unhindered.

Overall THREATS

Low Threat

The large size, alpine wilderness character, and low resident population of the property ensure that overall threats from human activities are minor and localized. The influence of accelerated global warming on the melting of the Pamir glaciers is a significant threat in the medium- to longer-term.
The breaching of Lake Sarez through a major earthquake or other natural event

is a potential threat of exceptional concern and international interest. Unsustainable levels of teresken collection could reduce the population of wild animals with a potential for trophy hunting – a recreational activity which needs to be closely regulated to ensure it is sustainable.

Overall PROTECTION and MANAGEMENT

Some Concern

The greatest protection for the core property stems from its remoteness and impenetrable mountain wilderness character. A satisfactory legal framework for protection and a management system is in place but effective management is severely hampered by an inadequate budget and deficiencies in staff training and operational equipment.

FULL ASSESSMENT

Description of values

Values

World Heritage values

▶ **Alpine wilderness of high glaciated mountains**
Criterion:(vii)

The Pamir Mountains are the third highest mountain ecosystem in the world after the Himalaya and Karakorum Ranges and include the world's longest valley glacier outside of the Polar Regions. The Tajik National Park property, which encompasses virtually all of the Pamir Mountain ranges, represents one of the largest high mountain protected areas in the Palearctic Realm. Among the many, often large, glaciers of Inner Asia, the Fedchenko Glacier is the longest glacier in the world outside of the Polar Regions. The visual combination of some of the deepest gorges in the world, surrounded by rugged glaciated peaks, as well as the alpine desert and lakes of the Pamir high plateaux adds up to an alpine wilderness of exceptional natural beauty and the extreme aridity of the climate has kept the area virtually free of impacts from agriculture and permanent human settlement. (TNPa, 2012; IUCN, 2013)

▶ **High altitude lakes**
Criterion:(vii)

Lake Sarez and Karakul Lake are superlative natural phenomena. The Pamir highlands are subject to frequent and strong earthquakes and the highly active tectonics have produced a geologically dynamic terrain. The most impressive result of this tectonic activity, Lake Sarez, was created by an earthquake-generated landslide of an estimated six billion tonnes of material,

is impounded behind the highest natural dam in the world, and is possibly the youngest deep water alpine lake in the world. Lake Karakul is likely to be the highest large lake of meteoric origin. (TNPa, 2012; IUCN, 2013).

- **Landform juxtaposition of heavily-glaciated high peaks, high plateaux with an alpine desert character, and deep gorges**
  Criterion:(viii)

  The juxtaposition in one protected area of so many high mountains, valley glaciers, and deep river gorges alongside the cold continental desert environment of the high plateau landforms provides for a unique geomorphic environment. A wide range of glacial and periglacial landforms and processes are apparent including rock glaciers of different kinds, areas of extensive permafrost and patterned ground. An outstanding landform feature of the property’s geologically dynamic terrain is Lake Sarez. It is of international scientific and geomorphological hazard significance because of the on-going geological processes influencing its stability, and the sort of lacustrine ecosystem which will develop over time. Tajik National Park furthermore offers a unique opportunity for the study of plate tectonics and continental subduction phenomena thereby contributing to our fundamental understanding of earth building processes. (SoOUV, 2013)

Other important biodiversity values

- **Significant habitat for wild crop plants and fruit trees, snow leopard, and Marco Polo argali.**

  Only 10% of Tajik NP is covered by biogenic landscapes (i.e. landscapes formed under the influence of living organisms), the rest is largely barren rock or ice. The lower western valleys do contain areas of wild varieties of crop plants in the Central Asian ‘Vavilov Centre of Diversity’ (TNPa, 2012). Tajik NP is large enough to be the habitat for a significant population Snow Leopard and Marco Polo Argali, a subspecies of the globally threatened Argali Sheep.

Assessment information

Threats

Current Threats

Low Threat

The large size, alpine wilderness character, and low resident population of the property ensure that overall threats from human activities are minor and localized. The influence of accelerated global warming on the melting of the Pamir glaciers is a significant threat in the medium- to longer-term.

▶ Livestock Farming / Grazing

Very Low Threat
Inside site

There is only summer grazing on narrow riparian grassland strips, and some hay-making close to the small villages in the Traditional Use Zone (TNPb, 2012)

▶ Housing/ Urban Areas

Very Low Threat
Inside site

There are only 5 small villages in the upper reaches of the Bartang River; all other settlements are outside boundary. (TNPb, 2012)

▶ Commercial hunting

Low Threat
Inside site
Outside site

Currently the population of Marco Polo argali within the park is estimated at 5400 and Siberian ibex at around 4200. Efforts are being made to bring trophy hunting under strict control and ensure it is sustainable. Within the park this will most likely be around Karakol Lake, but efforts will be made to

locate most of it outside the park (to the SE) (TNPb, 2012)

▶ Subsistence hunting

High Threat
Inside site
Outside site

Illegal poaching is an issue. Traditionally, shooting of argali trophy heads has been seen as a ‘rite of passage’ into adulthood for young Tajik men. Apart from this, commercial poaching and illegal trophy hunting also occur.

▶ Utility / Service Lines

Very Low Threat
Inside site

Summer water storage by small dam at outlet of Lake Yashikul (and release in winter) has local affect in lacustrine ecology (TNPb, 2012).

▶ Tourism/ visitors/ recreation

Very Low Threat
Inside site
Outside site

There are currently only about 1200 visitors/year to the vast site. These are accommodated in villages just outside the boundary and their on-site impact is miniscule. If this number is increased to 3000/yr (as planned) it could start to impact on the natural resource of teresken plants, if the authorities do not substitute imported fuel for household use. (IUCN, 2013)

Potential Threats

Low Threat

The breaching of Lake Sarez through a major earthquake or other natural event is a potential threat of exceptional concern and international interest. Unsustainable levels of teresken collection could reduce the population of wild animals with a potential for trophy hunting – a recreational activity which needs to be closely regulated to ensure it is sustainable.

► Roads/ Railroads

Very Low Threat
Inside site
Outside site

Of very minor significance, only on fragile alpine desert plateau ecosystems if driving off-road.

► War, Civil Unrest/ Military Exercises

Very Low Threat
Inside site
Outside site

Civil war and border security are very real issues in southern and western Gorno-Badakhshan. However, they are remote from the core areas of the property.

► Storms/Flooding

High Threat
Inside site
Outside site

Global warming is a potential threat already leading to higher meltwater levels in summer. This disruption to the mountain valley 4WD roads was experienced by the IUCN field evaluators in 2013 and was raised as an access concern by the villagers in meetings with the field evaluators (IUCN, 2013).

► Fishing / Harvesting Aquatic Resources

High Threat
Inside site
Outside site

It is difficult to solve this threat in the short-term. The socio-economic situation of the towns and villages on the Pamir Plateau needs to be lifted and alternative sources of fuel, such as coal and gas) supplied (as was the case in Soviet times).

► Earthquakes/ Tsunamis

High Threat

Inside site
Outside site

The threat of a major earthquake breaching the Uzoi Dam and releasing the huge volume of water in Lake Sarez into the Bartang/Panj/Amu Darya river system is taken very seriously by the Tajik authorities 9and the governments of adjoining countries which may be affected) (TNPa, 2012; IUCN, 2013).

Protection and management

Assessing Protection and Management

► Relationships with local people

Mostly Effective

Very few people live within the property but the village communities on the periphery seem to recognize the protected status of TNP and had a working relationship with the TNP management. Many of the park rangers lived within these villages and used villagers as temporary wardens. (IUCN, 2013)

► Legal framework and enforcement

Mostly Effective

Various protected area legislation since 1992 (up to 2005) has established the property as a protected legal entity (TNPb, 2012)

► Integration into regional and national planning systems

Data Deficient

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► Management system

Some Concern

Management responsibility is clearly that of the State Agency of Natural Protected Areas (SANPA). There are three regional offices but only 54 staff. The TNP management team includes 3 directors and 3 chiefs of regional offices. The majority of staff, especially rangers, are selected from local

people. (TNPa, 2012)

► Management effectiveness

Serious Concern

The park authority acknowledges that due to its vast territory the current number of staff is quite insufficient to ensure adequate control of the park. The current situation is one of doing the best with the limited staff and equipment available. Most of the equipment is from Soviet times and should be written off. (TNPa, 2012; TNPb, 2012; IUCN, 2013). Limited Staff increases are proposed but any significant lift in management effectiveness is very dependent on budgetary increases (including overseas donors).

► Implementation of Committee decisions and recommendations

Some Concern

Most of the 2010 WHC decisions regarding the deferral of the 2009 Tajik NP nomination (34COM 8B.3) were implemented (IUCN, 2013). However, in its 2013 decision to list, the committee again emphasized (37COM 8B.14) the need for “the State Party to marshal the necessary human and financial resources to ensure effective long term protection and management in accordance with the property’s management plan and to explore options to secure additional international financial assistance for capacity building” and encouraged “the State Party to cooperate with the neighbouring State Party of Kyrgyzstan to develop improved and sustainable tourism programmes which enhance visitor services, income and which foster community-based tourism development”.

► Boundaries

Mostly Effective

The boundaries of the property (and the management zones allowing a degree of sustainable human use) are mostly effective. However, if pressure for increased illegal hunting and collection of teresken for fuel (currently mostly outside the property) impinges into the TNP, management will have to respond to increase surveillance of the boundaries.

► Sustainable finance

Serious Concern

This is the most serious management issue facing the property. The Tajik management authorities openly acknowledge this problem and are actively seeking increased budgets from their government, some income from trophy hunting and eco-tourism, and assistance from outside donor agencies. (TNPa, 2012; TNPb, 2012; IUCN, 2013).

► Staff training and development

Serious Concern

Current staff morale and commitment seems high (IUCN, 2013) but staff levels and training need to be increased. Again, this is limited by the low budget allocated to TNP.

► Sustainable use

Some Concern

Because of the current low human pressure on the core of TNP, most pressure on the effectiveness of sustainable use measures is confined to the ‘traditional use’ and ‘limited economic use’ zones. Harvesting unsustainable levels of teresken is the largest threat and if this happens it will have a detrimental effect on the population of Marco Polo argali (the main object of trophy hunting).

► Education and interpretation programs

Data Deficient

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► Tourism and interpretation

Some Concern

Most eco-tourism is accommodated in the peripheral town of Murghab and the small villages. The relationship between the management agency and tourism guides seems effective at these low numbers (c.1200/yr). However, this would need to be re-assessed if the numbers increase to c.3000/yr as hoped for (TNPa, 2012).

▶ **Monitoring**
Some Concern

Currently severely limited by lack of budget (TNPb, 2012)

▶ **Research**
Mostly Effective

Very limited detailed information on focus and effectiveness for management.

Overall assessment of protection and management
Some Concern

The greatest protection for the core property stems from its remoteness and impenetrable mountain wilderness character. A satisfactory legal framework for protection and a management system is in place but effective management is severely hampered by an inadequate budget and deficiencies in staff training and operational equipment.

▶ **Assessment of the effectiveness of protection and management in addressing threats outside the site**
Mostly Effective

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State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ **Alpine wilderness of high glaciated mountains**
Good
Trend:Stable

The scenic and aesthetic values are essentially intact throughout the property. Apart from limited recreation facilities in the small recreation

zones, and traditional seasonal grazing, hay-making and regulated trophy hunting in the peripheral ‘use zones’, the property is free from excessive or inappropriate human development.

► High altitude lakes

Good
Trend:Stable

The water quality of the high altitude lakes is very high with no potential threats from human activity. The Uzoi natural dam impounding Lake Sarez is currently stable and its values intact. However, it is impossible to comment on the likelihood of a catastrophic earthquake which could have a major impact on its values. A complex network of sensors is in place and electronic signals indicating any failure of the Uzoi Dam would be relayed by satellite to a co-ordination centre tasked with broadcasting warnings to downstream populations.

► Landform juxtaposition of heavily-glaciated high peaks, high plateaux with an alpine desert character, and deep gorges

Low Concern
Trend:Stable

The major Pamir glaciers, such as the Fedchenko do not appear to be melting at as rapid a rate as other northern hemisphere mountain ranges like the Caucasus or European Alps (TNPa, 2011). However, the trend is for global warming to continue and this has serious implications in the longer term for the supply of freshwater to the lowlands of Central Asia, given the critical regional importance of the ‘water-towers’ within the glaciers of the property (TNPa, 2012).

Other important biodiversity values

► Significant habitat for wild crop plants and fruit trees, snow leopard, and Marco Polo argali.

Only 10% of Tajik NP is covered by biogenic landscapes (i.e. landscapes formed under the influence of living organisms), the rest is largely barren rock or ice. The lower western valleys do contain areas of wild varieties of crop plants in the Central Asian ‘Vavilov Centre of Diversity’ (TNPa, 2012).

Tajik NP is large enough to be the habitat for a significant population Snow Leopard and Marco Polo Argali, a subspecies of the globally threatened Argali Sheep.

Summary of the Values

▶ **Assessment of the current state and trend of World Heritage values**
Good
Trend: Stable

The outstanding universal value and natural attributes of the property are assessed as currently being in a good and stable state. Their protection and management, which includes active engagement with the local communities, presents no current or foreseeable major problems or concerns. The scenic and aesthetic values are essentially intact throughout the property. The outstanding geological features are protected and on-going natural processes in the development of landforms and other significant geomorphic features, including the influences of global warming, are unhindered.

▶ **Assessment of the current state and trend of other important biodiversity values**
Low Concern
Trend: Stable

The populations of iconic wild animals like snow leopard, Marco Polo argali, and Siberian ibex appear to be stable (TNPa, 2012) and benefit from the very large area of the protected property. The ‘Vavilov centres’ in the western lowlands of the property are identified and protected, with close involvement of local communities.

Additional information

Key conservation issues

▶ **Natural hazards from extreme geological and climatic events.**
Regional

The property is subject to high magnitude-low frequency natural events such as earthquakes and localized hindrances to road communication, such as avalanches and flooding. The latter are amenable to some management mitigation but the former render the management authority and local populations powerless to predict.

▶ Influence of global warming

Global

Like the other great mountain ranges of Inner Asia, the effect of global warming on the vast resources of freshwater stored in the glaciers, is of critical regional, national and international importance. This universal issue is a research challenge which should not be the responsibility of the Tajikistan authorities alone.

▶ Sustainable tourism

Local

Eco-tourism and the hunting of wild trophy animals are the only likely sources of outside income for local populations and the management agency alike. However, in such a fragile alpine desert with low biomass productivity to sustain populations of these iconic wild animals, the achievement of a sustainable low impact visitor level will require careful regulation, monitoring and research.

Benefits

Understanding Benefits

▶ Is the protected area valued for its nature conservation?

The property protects a high mountain complex of international scientific interest and global conservation significance. It is of fundamental importance in the protection and sustainable conservation of climatic, hydrological, soil and other ecological services and amenities.

▶ Outdoor recreation and tourism

The property is of great significance for outdoor recreation, especially mountaineering and trophy hunting. It has a long history of mountaineering, especially during the period when the Pamir peaks were the highest in the USSR.

► Outdoor recreation and tourism

Vast wilderness landscapes like Tajik National Park are becoming rare with the increasing pace of international development (including that for mass tourism). The remoteness, spectacular mountain scenery, wildlife, discrete archaeological sites, and seasonal nomadic pastoral lifestyles can provide benefits to visitors and locals alike.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
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REFERENCES

№	References
1	IUCN, 2013: IUCN Technical Evaluation: TAJIK NATIONAL PARK (Mountains of the Pamirs) (TAJIKISTAN) ID No. 1252 rev
2	TNPa, 2012: Republic of Tajikistan, Tajik National Park (Mountains of the Pamirs), nomination document.
3	TNPb, 2012: Republic of Tajikistan, Management Plan of Tajik National park for 2012-2016