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

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

Tassili n'Ajjer

SITE INFORMATION

Country:
Algeria
Inscribed in: 1982
Criteria:
(i) (iii) (vii) (viii)

Site description:

Located in a strange lunar landscape of great geological interest, this site has one of the most important groupings of prehistoric cave art in the world. More than 15,000 drawings and engravings record the climatic changes, the animal migrations and the evolution of human life on the edge of the Sahara from 6000 BC to the first centuries of the present era. The geological formations are of outstanding scenic interest, with eroded sandstones forming ‘forests of rock’. © UNESCO

SUMMARY

2017 Conservation Outlook

Good with some concerns

The conservation outlook for Tassili n’Ajjer seems good overall regarding its World Heritage status, but there are significant wider conservation concerns related to other biodiversity values. The main issue regarding the conservation status of the natural values of Tassili n’Ajjer is that relatively little recent information about them is available. The information that is available suggests that pressures and threats to the natural values of the site under criteria (vii) and (viii) are limited and that the current management is therefore adequate for the site's values under the Convention, but that it does not appear to be conserving wider biodiversity values. There may be a need to continue developing the management system of the Site, in order to be prepared for potential increases of threats in the future, and to strengthen its governance by including representatives from government departments dealing with protected areas (the site is currently managed by the department of culture).
* For mixed sites Conservation Outlook Assessments only evaluate the natural values of these sites (criteria vii, viii, ix and x) and the overall assessment reflects the potential of a site to preserve its natural values over time.

Current state and trend of VALUES

Good
Trend: Stable

The geo-morphological values of Tassili n’Ajjer appeared relatively well-preserved at the time of inscription, because of the remoteness and difficulty of access to the area. Little information on their status has become available since.

Overall THREATS

Data Deficient

The main pressures and potential threats to the cultural and geological values of

the site are being caused by damage and littering by visitors. These pressures appear limited, although detailed recent information is unavailable. Threats to additional biodiversity values from unsustainable resource use (poaching , fuel wood collection, grazing etc.), disturbance, and climate change are considered significant and growing, based on recent information. The site suffers from a major lack of updated information. No reports or missions for a long period of time except for one brief unpublished mission report in 2010.

Overall PROTECTION and MANAGEMENT

Some Concern

The site suffers from a major lack of updated information. No reports or missions for a long period of time except for one brief unpublished mission report in 2010. The site has been protected as Cultural Park under the Law on Protection of Cultural Heritage since 2004. Management planning was still in progress in 2010, and management was based on ad-hoc annual plans in 2010. The legal and policy framework for the site’s protection was improved until 2010, but the immense size of the site and the relatively low staff complement and qualification remain a challenge. Financial support is reportedly sufficient. There is a GEF programme on strengthening biodiversity management at the site. The protection of the site may be sufficient to control the limited current pressures on its geo-morphological values but the same is probably not true for the protection of additional biodiversity values.

FULL ASSESSMENT

Description of values

Values

World Heritage values

- **Geological records of transition of hydrographic system from fluvial to hyper-arid conditions**
  Criterion:(viii)

  Signs of intense fluvial erosion on sandstone plateau. Geological conformation includes Precambrian crystalline elements and sedimentary sandstone successions of great palaeo-geographical, palaeo-climatological and palaeo-ecological interest (UNEP-WCMC, 2011). The rock art depicts water-dependent species like the hippopotamus, and species which have been extinct in the region for thousands of years (SoOUV, 2010).

- **Exceptional scenic beauty of deeply eroded north-facing cliffs, gorges and valleys**
  Criterion:(vii)

  With the eroded sandstone forming "rock forests", the property is of remarkable scenic interest. The sandstone has kept intact the traces and marks of the major geological and climatic events. The erosive effects of water, and then wind, have contributed to the formation of a particular morphology, that of a plateau carved by water and softened by the wind (SoOUV, 2010).

Other important biodiversity values

► Additional biodiversity values

This is potentially one of the prime sites for desert biodiversity conservation worldwide (GEF, 2011). The deep valleys of the site form a centre of relict Mediterranean as well as Sudano-Decan and Saharo-Sindien vegetation and flora, and a centre of plant diversity (total 300 species – GEF, 2011). This includes 73 endemic species, the globally endangered Saharan Cypress (240 specimens remaining) and 33 additional, nationally threatened plant species (GEF, 2011). There is also rich submersed vegetation in the water bodies across the site. There is a relatively rich vertebrate fauna, with four species of fish, 14 species of herpetofauna, 37 species of mammals (five of which are endangered) including 23 species of large mammals (including the globally vulnerable cheetah and, before it became locally extinct, the critically endangered Addax) as well as a community of residential and resting migratory Palaearctic birds (including the globally vulnerable Lesser Kestrel) (GEF, 2011, UNEP-WCMC, 2011). There are a total of 134 bird species at the site, 14 of which are regional endemics (GEF, 2011). The mosaic of more arid and other more humid areas within the site contributes to its considerable biodiversity. The area is also an Important Bird Area and together with the neighboring Ahaggar complex comprises three Ramsar sites (Wetlands International, 2013, BirdLIfe International, 2013).

Assessment information

Threats

Current Threats

Data Deficient

Despite the still relatively llimited visitation of the site, the threats from littering, vandalism and artifact theft are not quantified. The same is true for threats to the additional biodiversity values of this large and inaccessible site. However, poaching, grazing, and plant/wood collection are already putting

significant pressure on plant and animal resources of the site. The site suffers from a major lack of updated information. No reports or missions for a long period of time except for one brief unpublished mission report in 2010.

▶ Other Biological Resource Use

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

Commercial collection of several species for charcoal and medicinal purposes growing and already considered unsustainable (GEF, 2011). Insufficient enabling framework for sustainable use management of natural resources (GEF, 2011).

▶ Hunting (commercial/subsistence)

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

Hunting pressure has brought several populations including cheetah and slender-horned gazelle to the brink of extinction and threatens others. Addax and Scimitar-horned Oryx are already extinct from the property (GEF, 2011).

▶ Desertification

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

Aridification impairs natural reproduction of Saharan Cypress, which will most likely become extinct unless conservation measures succeed (UNEP-WCMC, 2011). No detailed information is available.

▶ Tourism/ visitors/ recreation

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

Tourist numbers growing until 1990s, may increase again given improved transport infrastructure (Djanet Airport, north-south roads). Currently still low tourist numbers and consequently limited effects (IUCN, 2010). It has been estimated that at least two million archaeological artifacts have been

removed by collectors from the Ahaggar/Ajjer region, with the more accessible Ahaggar being the more affected (UNEP-WCMC, 2011), and there is a documented case of tourists caught by authorities with 130 stolen artifacts (BBC, 2004).

Potential Threats

Protection and management

Assessing Protection and Management

► Relationships with local people

Mostly Effective

Ministerial and local representatives involved in Advisory Board. Local stakeholders intensely involved in management, according to the State Party (UNESCO, 2010). However, a need to strengthen procedures for collaborative management with the local population has also been reported (GEF, 2011).

► Legal framework

Some Concern

The Site is protected as a Cultural Park under the Law on Protection of Cultural Heritage since 2004. A Park Office was established in accordance with this designation. Rangers/wardens control the few key access points to the Park. The legal framework was strengthened and a new guardian system was established in 2010 (UNESCO, 2010). Excellent enforcement capacity is reported by the State Party, but staff numbers are low relative to size of site (UNESCO, 2010, IUCN, 2010). Enforcement capacity is considered a barrier to effective biodiversity management (GEF, 2011).

► Enforcement

Some Concern

Controlling hunting pressures is very difficult, as Tassili n'Ajjer is in a remote border region in the Saharan desert (Abulhawa et al, 2014). Enforcement capacity has been deemed excellent by the State Party (UNESCO, 2010) but

considered a barrier by other analyses (GEF, 2011).

▶ Integration into regional and national planning systems

Serious Concern

Lack of coordination between ministries and the wilaya level, and generally significant barriers to the integration of WH - as well as biodiversity management in particular - into national and wilaya level planning (GEF, 2011).

▶ Management system

Serious Concern

A management plan was in preparation in 1987 and still in 2010. In 2010, the management system was reported to be based on annual plans (UNESCO, 2010). Biodiversity Action Plan for the Tassili Ahaggar region for 2011-17 developed, implementation status unclear (GEF, 2011). The Tassili Park Office is an establishment that is run by a decree-appointed director, and managed by an Advisory Board which includes representatives of the various ministerial departments and local representatives (SoOUV, 2010).
150 staff in 2010 (IUCN, 2010), but wardens mainly untrained. No specific conservation activities relevant to criteria vii and viii reported until 2010. Plans to update and improve management plan reported in 2010 (UNESCO, 2010).

▶ Management effectiveness

Some Concern

The Management Effectiveness Tracking Tool (METT) score of the property increased from 58 to 62 between 2006 and 2008, which was considered a satisfactory trend (GEF, 2011). No recent information is available.

▶ Implementation of Committee decisions and recommendations

Data Deficient

No recommendations made by Committee.

▶ Boundaries

Mostly Effective

The boundaries and size of this exceptionally large area are adequate to ensure the maintenance of the geological processes, ecosystems and biodiversity of the site. However, staff numbers are small in relation to the size of the property and its remote location at the international border with Niger makes it challenging to manage effectively (IUCN, 2010).

▶ Sustainable finance

Mostly Effective

The National Park is financially independent. Conservation resources are sufficient according to the State Party (UNESCO, 2010). There is an annual operating budget for the implementation of the Action Plan, and a capital budget for the realization of major development projects and infrastructure (SoOUV, 2010). Some nature conservation projects on Saharan Cypress in the1980s were funded by IUCN and WWF. A UNDP-GEF programme on biodiversity conservation was active from 2004 to 2011 (GEF, 2011), and is to be continued to 2017. $102,871 total financial support was provided by the World Heritage Fund between 1984 and 1998 (UNESCO, 2013). However, resources earmarked for conservation are limited and are used for documentation, essential equipment and the living expenses of experts on projects (UNEP-WCMC, 2011).

▶ Staff training and development

Serious Concern

Much room for improvement of staff training and qualification level reported in 2011. Most staff have a cultural/archaeological background, which is not useful for effective biodiversity conservation. Staff with biodiversity skills and knowledge are lacking (GEF, 2011). Wardens are trained to act as wildlife guides and to ensure that the rock art and other archaeological sites are protected and that there is no hunting, collection of plants, or damage to trees (UNEP-WCMC, 2011).
A UNDP project on the conservation of globally important biodiversity and the sustainable use of ecosystem services in the cultural parks of Algeria is on-going, which aims to enhance national capacity in the sustainable management of natural resources, and strengthen national capacity to fight soil degradation and desertification.

► Sustainable use

Some Concern

Insufficient enabling framework for sustainable use management of natural resources (GEF, 2011). A UNDP project on the conservation of globally important biodiversity and the sustainable use of ecosystem services in the cultural parks of Algeria is on-going, which aims to enhance national capacity in the sustainable management of natural resources, and strengthen national capacity to fight soil degradation and desertification.

► Education and interpretation programs

Some Concern

The World Heritage status is not interpreted in an effective manner but an education programme was being implemented in 2010 (UNESCO, 2010). Room for improvement of education and interpretation has been noted (GEF, 2011).

► Tourism and visitation management

Mostly Effective

Increased visitor influx through Djanet Airport expected but still only 7,600 visitors in 2009 (IUCN, 2010). NP Administration issues permits and guides to tourists wishing to cross the plateau on 4x4 tours. All tourists are supposed to be accompanied by guides. Efforts to develop sustainable tourism were underway in 2010 (UNESCO, 2010).

► Monitoring

Some Concern

Monitoring has helped to develop an action plan for the site (UNESCO, 2010) but no effective monitoring system of geo-morphological values in place in 2010 (IUCN, 2010). Biodiversity monitoring system for Tassili Ahaggar region developed by GEF project until 2011 (GEF, 2011).

► Research

Data Deficient

Some research into Saharan Cypress and natural resources in the 1980s.

Some ongoing research (without specification) was reported in 2010 (IUCN, 2010. UNESCO, 2010). No recent information is available.

Overall assessment of protection and management

Some Concern

The site suffers from a major lack of updated information. No reports or missions for a long period of time except for one brief unpublished mission report in 2010. The site has been protected as Cultural Park under the Law on Protection of Cultural Heritage since 2004. Management planning was still in progress in 2010, and management was based on ad-hoc annual plans in 2010. The legal and policy framework for the site’s protection was improved until 2010, but the immense size of the site and the relatively low staff complement and qualification remain a challenge. Financial support is reportedly sufficient. There is a GEF programme on strengthening biodiversity management at the site. The protection of the site may be sufficient to control the limited current pressures on its geo-morphological values but the same is probably not true for the protection of additional biodiversity values.

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

Data Deficient

The site suffers from a major lack of updated information. No reports or missions for a long period of time except for one brief unpublished mission report in 2010.

State and trend of values

Assessing the current state and trend of values

World Heritage values

► Geological records of transition of hydrographic system from fluvial to hyper-arid conditions

Good
Trend:Stable

Relatively well protected by its geographic isolation and difficulty of access at the time of inscription, and no changes reported since (UNEP-WCMC, 2011).

▶ **Exceptional scenic beauty of deeply eroded north-facing cliffs, gorges and valleys**

Low Concern
Trend:Stable

Apparently no major construction projects that might affect exceptional scenic beauty are ongoing, and no changes have been reported since inscription (UNEP-WCMC, 2011; IUCN, 2010). Some impacts from littering may be present, but there is insufficient information available to assess their extent.

Summary of the Values

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

Good

Trend: Stable

The geo-morphological values of Tassili n’Ajjer appeared relatively well-preserved at the time of inscription, because of the remoteness and difficulty of access to the area. Little information on their status has become available since.

▶ **Assessment of the current state and trend of other important biodiversity values**

High Concern

Trend: Deteriorating

The state of several other important biodiversity values of the site appears to be unfavorable and deteriorating. Two mammal species are considered locally extinct (Scimitar-horned Oryx and Addax), two are considered endangered (Cheetah and Slender-horned Gazelle), and others (e.g. Barbary Sheep) are considered declining. Exploitation of several plant species for fuel wood, charcoal and medicinal use is also considered unsustainable. The current state and trend of these values are considered to be of High Concern

and deteriorating, but this assessment could change for better or for worse if more up-to-date information becomes available.

Additional information

Benefits

Understanding Benefits

▶ **History and tradition**

The site comprises an immense gallery of Neolithic art from 8,000 to ca. 1,500 years ago which also document climate history over this period (UNEP-WCMC, 2011). This offers rich cultural, archaeological and historical benefits.

The magnitude and impacts of the change in land use are not understood or properly reported upon.

▶ **Livestock grazing areas**

The property supports a traditional extensive Tuareg grazing economy, with more than 20,000 Tuareg keeping 100,000 heads of camel, goat and sheep each in the wider area including the property (GEF, 2011).

The impact of grazing are mainly related to other biodiversity values (e.g. vegetation cover and floral diversity).

▶ **Outdoor recreation and tourism**

The considerable scenic and wilderness values as well as tourism potential of the area is currently only incompletely used although some efforts to develop sustainable tourism exist (GEF, 2011).

▶ **Importance for research**

The property not only offers unique archaeological and historical insights, but also consists of ecosystems and biodiversity highly adapted to arid

conditions, which may affect extended areas in the future as a result of climate change (GEF, 2011).

► Traditional agriculture

Wheat, root and fruit crops are grown in a few northern valleys such as Oued Iherir where more than 1000 people live (UNEP-WCMC, 2011).

Invasive species impacts are not understood or reported upon. Their potential remains high.

► Tourism-related income

Tourism generates income and jobs for local people, although there are currently still low tourist numbers (IUCN, 2010).

Summary of benefits

Besides the benefits from its immense archaeological, cultural, geological and scenic values, for which the property is recognized, Tassili N’Ajjer also provides rich benefits to local Tuareg herders and has a huge but currently only incompletely used potential to contribute to global biodiversity conservation and sustainable nature-based tourism.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	ICARDA (GEF funded)		Conservation of Globally Significant Biodiversity and Sustainable Use of Ecosystem Services in Algeria’s Cultural Parks, with a wide range of conservation related activities, second phase 2011-2017.

Compilation of potential site needs

№	Site need title	Brief description of potential site needs	Support needed for following years
1	Strengthen governance and management system	Management system should be further developed, and governance may be strengthened by including representatives from government departments dealing with protected areas (as it is currently managed by the Ministry of Culture) (Abulhawa et al, 2015). There is no management plan, and the management system is based on annual plans as reported in 2010 (UNESCO, 2010).	
2	Training and diversification of staff	Improvement is needed of staff training and qualification level, as most staff have cultural/archaeological backgrounds, and lack biodiversity skills and knowledge (GEF, 2011). Also, rangers/wardens control a few key access points to the area, but are generally untrained (UNESCO, 2010).	
3	Education and Interpretation	There is a noted need for effective education and interpretation of World Heritage Status (UNESCO, 2010).	
4	Effective monitoring and provision of information	A monitoring system needs to be established which provides information about the current status of the site's natural values, pressures and potential threats, further progress regarding update of the management plan, financial aspects, and ongoing research programs (IUCN, 2014). A biodiversity monitoring system for Tassili Ahaggar was run by a GEF project until 2011 (GEF, 2011), but there is no information about current monitoring projects.There is no effective monitoring system of geo-morphological values in place (IUCN, 2010).	
5	Enhancement of local stakeholder involvement	According to the State Party, local stakeholders have been intensely involved in management (UNESCO, 2010), however, a need to strengthen procedures for collaborative management with the local population has also been reported (GEF, 2011).	
6	More staff	There is a need for more staff, as there are relatively few staff in relation to size of the site (UNESCO, 2010; IUCN, 2010), and enforcement capacity is considered a barrier to effective biodiversity management (GEF, 2011).	

№	Site need title	Brief description of potential site needs	Support needed for following years
7	Better coordination between governmental ministries and the wilaya level	There needs to be better coordination between ministries and the wilaya level, as there are frequently significant barriers to the integration of WH - as well as biodiversity management in particular - into national and wilaya level planning (GEF, 2011).	
8	Framework for sustainable use	There needs to be a sufficient enabling framework for the sustainable use management of natural resources (GEF, 2011).	
9	Enhancement of biodiversity conservation	There needs to be a continual strengthening of efforts to provide appropriate protection for the site's significant biodiversity values. This should include directly addressing threats such as poaching and plant collection, capacity development and sustainable financing for biodiversity conservation, better mainstreaming of biodiversity conservation in national and wilayat policy and planning, and efforts aimed at community co-management of natural resources in the area (IUCN, 2014).	
10	Effective control of removal of artifacts	There is a need for effective control of removal of artifacts from the Site, as it has been estimated that at least two million archaeological artifacts have been removed by collectors from the Ahaggar/Ajjer region, with the more accessible Ahaggar being the more affected (UNEP-WCMC, 2011).	
11	Effective communication framework	A more effective communication framework with the State Party needs to be adopted, in order to enhance its ability to achieve adequate levels of knowledge on the various values and attributes of the site (Abulhawa et al, 2014).	
12	SEA feasibility assessed	It should be considered to assess the feasibility of undertaking an SEA approach built around the Site's natural values, uses, and governance. This could be linked to a tailored training program for national staff and decision makers (Abulhawa et al, 2014).	

REFERENCES

№	References
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