IUCN Conservation Outlook Assessment 2014 **(archived)**
Finalised on 20 June 2014

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

# 2014 Conservation Outlook

**Good with some concerns**

The conservation outlook for Tassili n’Ajjer is 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) ands (viii) are limited and that the current management is therefore adequate for the sites 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

**Low Concern**
**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. Some additional natural values that are not covered by the inscription under World Heritage criteria vii and viii (e.g. endemic and threatened fauna and flora) have reportedly been degraded.

## Overall THREATS

**High Threat**

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.

## Overall PROTECTION and MANAGEMENT

**Some Concern**

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).

- **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 corrosive 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 including 23 species of large mammals (including the globally vulnerable cheetah and 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

**High Threat**

Because of the still relatively llimited visitation of the site, the threats from littering, vandalism and artifact theft are probably limited. The same should be true for threats to the additional biodiversity values of this large and inaccessible site. However, poaching and plant collection are already putting significant pressure on plant and animal resources of the site.

▶ **Other Biological Resource Use**

**High Threat**

**Outside site**

Commercial collection of several species for charcoal and medicinal purposes growing and already considered unsustainable (GEF, 2011).

### ► Desertification

**Data Deficient**
**Inside site**
**Outside site**

Aridification impairs natural reproduction of Saharan Cypress and may lead to its extinction (UNEP-WCMC, 2011). No detailed information is available.

### ► Tourism/ visitors/ recreation

**Low Threat**
**Inside site**
**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).

### ► Commercial hunting

**High Threat**
**Inside site**
**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 (GEF, 2011).

## Potential Threats

## Protection and management

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## Assessing Protection and Management

### ► Relationships with local people

**Some Concern**

Ministerial and local representatives involved in Advisory Board. Local stakeholders intensely involved in management 2010, 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).

### ► Management system

**Some Concern**

Management plan in preparation 1987 and still in 2010. Management system based on annual plans reported 2010 (UNESCO, 2010). Biodiversity Action Plan for the Tassili Ahaggar region for 2011-17 developed, implementation status unclear (GEF, 2011). 150 staff 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 2010 (UNESCO, 2010).

### ► Legal framework and enforcement

**Some Concern**

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

### ► Integration into regional and national planning systems

**Some Concern**

Lack of coordination between ministries and wilaya level and generally significant barriers to the integration of WH and particularly biodiversity

management into national and wilaya level planning (GEF, 2011).

### ► Management effectiveness

**Some Concern**

METT score of property increased from 58 to 62 between 2006 and 2008, which was considered a satisfactory trend (GEF, 2011),Enforcement capacity has been deemed excellent by the State Party in the past (UNESCO, 2010), but considered a barrier by other analyses (GEF, 2011).

### ► Implementation of Committee decisions and recommendations

**Highly Effective**

No recommendations made by Committee.

### ► Boundaries

**Mostly Effective**

Boundaries and size of this exceptionally large area adequate to ensure the maintenance of the geological process integrity, ecosystems and biodiversity of the site, but size and border location of site make it difficult to manage it effectively with the staff available (IUCN, 2010).

### ► Sustainable finance

**Mostly Effective**

National Park financially independent. Conservation resources sufficient according to the State Party (UNESCO, 2010). Some nature conservation projects on Saharan Cypress in 1980s by IUCN and WWF. UNDP-GEF programme on biodiversity conservation 2004-2011 (GEF, 2011), and to be continued to 2017. $102,871 WHF financial support between 1984 and 1998 (UNESCO, 2013).

### ► Staff training and development

**Some 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 missing (GEF, 2011).

### ▶ Sustainable use

**Some Concern**

Insufficient enabling framework for sustainable use management of natural resources (GEF, 2011).

### ▶ Education and interpretation programs

**Some Concern**

UNESCO World Heritage status not interpreted in effective manner but education programme reported in 2010 (UNESCO, 2010). Room for improvement of education and interpretation noted (GEF, 2011).

### ▶ Tourism and interpretation

**Mostly Effective**

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

### ▶ Monitoring

**Mostly Effective**

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 Cypresses and natural resources in 1980s. Some ongoing research (without specification) reported 2010 (IUCN, 2010. UNESCO, 2010).

## Overall assessment of protection and management

**Some Concern**

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**

N.A.

## State and trend of values

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## Assessing the current state and trend of values

### World Heritage values

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

**Low Concern**
**Trend:Stable**

Relatively well protected by its geographic isolation and difficulty of access at 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**

As above; apparently no major construction projects that might affect exceptional scenic beauty ongoing, and no changes reported since inscription (UNEP-WCMC, 2011; IUCN, 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 including 23 species of large mammals (including the globally vulnerable cheetah and 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).

## Summary of the Values

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

**Low Concern**

**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. Some additional natural values that are not covered by the inscription under World Heritage criteria vii and viii (e.g. endemic and threatened fauna and flora) have reportedly been degraded.

### ▶ 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.

## Additional information

### Key conservation issues

### ▶ Monitoring and provision of information

**Local**

Build on past efforts to establish a monitoring system including the site, and enhance activities to provide information about the current status of the site's natural values, pressures and potential threats to them, further progress regarding the update of the management plan, financial aspects and ongoing research programmes.

### ▶ Enhancement of biodiversity conservation

**Local**

Continue and strengthen efforts to provide appropriate protection for the significant biodiversity values of the site, which complement the overall natural values for which Tassili n’Ajjer is inscribed. 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.

## 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.

#### ► Is the protected area valued for its nature conservation?

The site harbors a wide range of central Saharan ecosystems with their associated biodiversity, including globally threatened and restricted range species (GEF, 2011); it could provide even greater benefits for global biodiversity conservation, provided that conservation management is improved.

#### ► Livestock grazing areas

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

#### ► 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).

## Summary of benefits

Besides the benefits from its immense archaeological, cultural, geological and scenical 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. |

# REFERENCES


| № | References |
|---|---|
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| 4 | UNEP-WCMC (2011). Tassili N’Ajjer National Park, Algeria. UNEP-WCMC World Heritage Information Sheets. [Electronic reference] . Accessed 27 May 2013. |
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| 7 | Wetlands International (2013). ‘Ramsar Sites Information Service’. [Electronic reference] . Accessed 27 May 2013. |