

AFRICA

LAKES OF OUNIANGA

CHAD



WORLD HERITAGE NOMINATION – IUCN TECHNICAL EVALUATION

LAKES OF OUNIANGA (CHAD) – ID No. 1400

IUCN RECOMMENDATION TO WORLD HERITAGE COMMITTEE: To inscribe the property under natural criteria

Key paragraphs of Operational Guidelines:

77 Property meet natural criteria

78 Property meets conditions of integrity and protection and management requirements

1. DOCUMENTATION

a) Date nomination received by IUCN: 11 March 2011

b) Additional information officially requested from and provided by the State Party: The State Party provided supplementary information after the IUCN evaluation mission, including a revision to the boundaries of the property and its buffer zone. IUCN requested supplementary information from the State Party on 7 February 2012, including an enhanced comparative analysis for this serial property as well as information on new legal measures taken to enhance its integrity.

c) Additional Literature Consulted: Harris N. (2003) **Atlas of the World's Deserts**. The Brown Reference Group UK. pp 26-40 (available in IUCN Library); Goudie, A. and Seely, M. (2011) **World Heritage Desert Landscapes: Potential Priorities for the Recognition of Desert Landscapes and Geomorphological Sites on the World Heritage List**. Gland, Switzerland pp 20-29. ProtectedPlanet <http://protectedplanet.net/>; Mexican protected area agency www.conanp.gob.mx. <http://environment.nationalgeographic.com/environment/habitats/desert-profile/> <http://www.linternaute.com/voyage/desert/trek/index.shtml>

d) Consultations: Fourteen external reviewers consulted. The mission also met with various partners, of which two from the German Cooperation; the technical services of the State party (CNAR, OTT); the focal point for World Heritage; the Ennedi Delegate for the Environnement; the German Ambassador in Chad; the director of the Development and Cooperation Agency (DDC) - cooperation between N'Djamena and Bern; and other various local authorities and local groups.

e) Field Visit: Pierre Galland and Djafarou Tiomoko, 9-19 October 2011.

f) Date of IUCN approval of this report: April 2012

2. SUMMARY OF NATURAL VALUES

The nominated property, the Lakes of Ounianga (LO), includes eighteen ecologically, geologically and hydrologically interconnected lakes within the Sahara Desert in the Ennedi region, West Ennedi department of Chad. It covers a total area of 62,808 ha. A buffer zone of 4'869 ha has been established in the south-western part of the nominated property to enhance its integrity but it is not proposed as part of the property.

LO is a natural site protected by the Decree N° 1077/PR/PM/MCJS/2010. The components of the nominated property, including both lakes groups, are:

Name	Number of lakes	Surface (ha)
Lakes of Ounianga Kebir	4	7,056
Lakes of Ounianga Serir	14	5,108
Land area around the lakes	-	50,644
Total surface		62,808

The Lakes of Ounianga are located in a basin located 50 to 80 m below a sandstone plateau. This basin extends from West-North-West to East-South-East. Water is supplied from fossil groundwater that flows from the foot of the sandstone cliff and feed the lakes, thus compensating extremely high evaporation losses.

The two groups of lakes are separated by a distance of c.40km between the two main lakes in each group, Lake Yoan and Lake Teli. The dominant geology of the region is sandstone and the lakes are located in a 50-80 mts depth depression.

The first group of lakes (Ounianga Kebir) comprises 4 lakes. The main lake at Ounianga Kebir, Lake Yoan, covers an area of 358 ha with a depth of c. 27 m. It is a hyper saline lake and the only life forms within it are algae and some microorganisms. However, some other lakes in the Ounianga Kebir group contain spirulina (*Spirulina platensis* or *Arthrospira platensis*).

The second group of lakes (Ounianga Serir) comprises 14 lakes separated by recently formed sand dunes. Almost half of the lakes' surface in the Ounianga Serir

group is covered by floating reeds (*Eragrostis bipennata*). This vegetation cover plays an important role in the lakes' function because it markedly reduces evaporation. Of all the lakes, Lake Teli is the most important: it covers a larger surface (436 ha) than Lake Yoan at Ounianga Kebir, but with less water volume, as its depth is less than 10 m. Lake Teli has a unique hydrological system, acting like a giant evaporation pump which creates an underground flow that feeds water to the other lakes of Ounianga Serir. The dunes separating the lakes are permeable structures through which groundwater can flow easily. The hydrological system of the lakes of Ounianga Serir, in conjunction with the reed cover, is responsible for the formation of the largest freshwater lake ecosystem in a hyper arid area. As a result of the good quality of their freshwater, some of these lakes are home to an aquatic fauna, particularly fish.

The Ennedi area in general, and the Northern part of Erdi of Ennedi in particular, has not had a recent inventory of natural resources. Only a few mammals and birds have been identified, amongst which fox, hyena, jackal, fennec fox, cape hare and gazelle have been noted. The Ounianga region is home to waterfowl, such as Marbled Teal, and Cape Teal, as well as to passerine species. At Ounianga Serir, the freshwater lakes shelter several fish species, amphibians and invertebrates.

Two villages are located on the outskirts of the two largest lakes (Yoan and Teli). They are Ounianga Kebir, in the buffer zone, and the smaller Ounianga Serir, inside the nominated property. Most inhabitants of the region live in these villages. The inhabitants have set up vegetable and fruit gardens (mostly date-palms) by the lakes, as well as other activities.

Located near Lake Yoan, Ounianga Kebir is the largest village, with three districts and c. 9,000 inhabitants, according to the 2009 census. Ounianga Kebir is equipped with a health centre, maternity, primary school, high school (total of 300 students) and customs office, together with shops, accommodation and traditional restaurants.

Located near the Lake Teli, Ounianga Serir is less developed than Ounianga Kebir. It houses a population of c.1,000 and has a primary school (total of 150 students), and a health centre is currently being built. There is little commercial traffic.

3. COMPARISONS WITH OTHER AREAS

The property has been nominated under natural criteria (vii) and (viii).

In the revised comparative analysis provided by the State Party the nominated property has been compared with 23 other sites in desert ecosystems of the Sahara, the Sahel, Peru and Chile. From this comparison the Lakes of Ounianga are the most important in terms of

the permanent volume of freshwater and are also the deepest (with a maximum of 27m depth in Lake Yoan) of all comparable sites in hyper-arid deserts. The fact that the lakes maintain permanent freshwater in an area where the highest potential evaporation has been recorded is outstanding and gives an indication of a complex underwater hydrological system which is still to be fully understood.

The lakes are fed by fossil groundwater, which compensates evaporation losses. The progression of the dunes (filling some lakes) is estimated at 2 m per year on average over the last 50 years. Given their size (the largest, Lake Teli, covering 346 ha.), the lakes are durable features, even in the current water deficit conditions. There are very few permanent lakes of significant size in the Sahara desert, and the lakes of Ounianga seem to be unique in its type of fossil groundwater circulation.

To summarize, the nominated property is the largest known lake complex in a hyper arid environment, with lakes of various water volumes, structure and composition (including saline, hyper saline and freshwater lakes). All these features support the recognition of the nominated property as a superlative natural phenomenon: one of the components of criterion (vii).

In relation to the second component of criterion (vii), regarding exceptional natural beauty and aesthetic importance, IUCN recognizes that can be subjective as it is dependent on how different cultures consider these values. In evaluating the nomination in this regard, IUCN notes that the opinion of all independent reviewers of this nomination is that aesthetic values are one of the key features of Ounianga, and the evidence of the field evaluation mission also strongly supports this view. IUCN has also made a systematic comparison of the nominated property with recorded images from the 23 sites included in the comparative analysis prepared by the State Party as well as with other desert sites worldwide. Images used for this assessment were obtained from a variety of journals, websites, Protected Planet (IUCN/UNEP-WCMC) and websites of national agencies for protected areas and tourism. From this assessment a number of features are found in the Lakes of Ounianga that can be regarded as making the nominated property exceptional:

- The shape and distribution of the lakes, combined with the effect of the wind moving the floating vegetation in the lakes, is an exceptional visual phenomenon, described by some observers as “waves of water flowing in the desert” offering a sense of dynamism close to that perceived in coastal areas.
- The beauty of the lakes, of various shapes, colours and chemical composition, offers spectacular scenery. A close comparator in terms of colours is associated to the Valley of Cuatro

- Ciénegas, in Central Coahuila, Mexico where a number of small lakes with pristine blue waters are present; however the Mexican site does not display the diversity of colours (green, pale blue, dark blue and reddish) of the Lakes of Ounianga.
- Unlike many other comparable sites the nominated property is located in a depression surrounded by sandstone cliffs which are natural outlook points allowing an overview of the dramatic landscape. Many comparable lakes are associated to mostly flat plains which don't allow this overview effect making difficult to distinguish the lakes from its surroundings.
- The shape and distribution of the lakes, which are aligned along parallel geological structures and separated by sand dunes, offer a very peculiar scenery with the form of large arrowheads shot into the desert.
- The overall setting of the nominated property is surrounded by some striking land forms that have been sculpted by the wind, resulting in a diversity of curious shapes and colours, and includes two villages with traditional buildings.

The key distinctive features noted above confer to the nominated property an exceptional natural beauty. In summary IUCN believes that through the combination of its superlative phenomena and aesthetic values the nominated property presents a strong case for inscription under criterion (vii).

In relation to the application of criterion (viii), the nomination argues that some of the lakes of Ounianga (in particular Lake Yoan - Ounianga Kebir) have a continuous and undisturbed sedimentation from the Holocene, providing a unique source of information on the recent paleoclimate of the Saharan region. However the arguments supporting this case appear based on a somewhat limited number of results. A number of independent reviewers noted that this justification for meeting criterion (viii) is not convincing, nor is yet fully supported by scientific research. In the view of IUCN the values outlined are both more of a regional significance, with potential to be strengthened through further research, than a representation of Outstanding Universal Value.

When assessing the Lakes of Ounianga against other World Heritage properties inscribed under criterion (viii), the property does not appear to demonstrate a compelling level of global geological importance for the application of this criterion. Other properties such as the Wadden Sea (Germany and The Netherlands) offer substantiated scientific records on the evolution of this vast area in the Holocene and it have been a source of scientific information that have influence geological concepts and theory on sedimentology. Arguably the geomorphological values of the property are also appropriately recognised under criterion (vii), also

embracing the diversity, and aesthetic aspects of the property. Therefore IUCN considers that at present the case for meeting criterion (viii) is not justified, and that the application of criterion (vii) could appropriately recognize the basis for recognition on the World Heritage List.

4. INTEGRITY, PROTECTION AND MANAGEMENT

4.1 Protection

The protected area system of Chad, as established in Law n°14/PR/2008, focuses on fauna and flora conservation. The classification contains the following categories: strict nature reserve; national parks; wildlife reserve; game reserve; wildlife ranches; faunal management zones; zoological garden, and forest.

None of these categories can be applied to the Lakes of Ounianga, which need protection rather for their hydrological operating system and aesthetic. The property is listed as a “natural site” according to the law 14-60 of 2 November 1960. This law covers the *“protection of monuments and natural sites, of sites and monuments of prehistoric archaeological, scientific, artistic or picturesque character, classification of historical or ethnographic objects and the regulation of excavations.”*

Decree n° 1077/PR/PM/MCJS/2010 of 15.12.2010 classified the Lakes of Ounianga as a “natural site and prohibits all activities that could threaten the integrity of the site, including mining. The national designation is similar to IUCN Category III for protected areas.

Wetlands such as the Lakes of Ounianga are also protected by Law 14/PR/98. The protection of the nominated property is adequate. However, IUCN notes that the legislation is very recent and, consequently, its application has not really been tested.

IUCN considers the protection status of the nominated property meets the requirements set out in the Operational Guidelines.

4.2 Boundaries

The nominated property was proposed in the original nomination document as a serial property as the land surface connecting the lakes was considered a buffer zone. This issue was promptly clarified during IUCN's technical evaluation mission and following the mission, the State Party submitted a revised proposal including the land surface connecting the lakes as part of the nominated property with boundaries following the 450 m contour line, corresponding to the limits of the natural depression where the lakes are located. The boundaries are also aligned with Decree No 1077 /PR/PM/MC/2010 which classifies the site as a Natural Protected Area.

The boundaries of the buffer zone were also revised following the field evaluation. The buffer zone established in the south-western part of the nominated property include the administrative facilities recently built in the village of Ounianga Kebir, the existing communication towers (all recently erected), the access road from Faya and the transit facilities for trucks going to and coming from Libya; all of which was originally considered within the nominated property. It was not possible to include the existing road to Libya in the buffer zone since it runs along Lake Yoan and then passes between the two main lakes of Ounianga Kebir; however a series of simple management measures should minimise impacts on the nominated property.

For the remainder of the property, a buffer zone is not necessary as external threats are essentially non-existent. The property is large enough to ensure visual integrity. The boundaries offer an appropriate degree of protection for the natural functions and specifically the underground hydrological system. However, it should be noted that current geological and hydrogeological data does not allow a scientific definition of the lake's watershed. Considering the amount of evaporated water which is compensated by an underground water supply, this watershed is likely to be much larger than the area of the natural depression where the lakes are located.

IUCN considers that the revised boundaries of the nominated property meet the requirements set out in the Operational Guidelines.

4.3 Management

IUCN notes the strong commitment at all management levels towards sustainable management of the property. IUCN's mission met with four ministers who expressed their willingness to contribute to the effective management of the site. Regional and local authorities, traditional or statutory, also showed clear support for the nomination and expressed their commitment to sustainable development in order to maintain the local population's traditional ways of life, whilst also giving access to modern benefits.

The management plan referred to in the nomination document is in fact more of an operational plan for the period 2010-2012, it offers a good starting point but will not be viable in the long term. In the additional information provided after IUCN's evaluation mission, the State Party confirmed that the management plan provided in January 2011 will be revised. International standards for management plans will be included in the new management plan that will be operational in May 2013. In the meantime, an action plan for the protection and conservation of the nominated property will be adopted and implemented. Moreover, a Local Management Committee (Comité Local d'Organisation et d'Exécution) was created by Ministerial Order (Minister of Culture N°064/PR/PM/MC/SG/CSNIP/2011 dated 12 September 2011). The authorities have discussed the lines of operation and mandate of the

Committee with the local populations. It was planned that the members of the committee would be designated at the latest by March 2012 so that the Committee could become operational as soon as possible. In agreement with the Local Committee and the National Scientific Interministerial and Multidisciplinary Committee (Comité Scientifique National Interministériel et Pluridisciplinaire--CSNIP), a site manager will be appointed.

To implement the action plan, an annual budget has been prepared and its funding has been guaranteed by Order of the Prime Minister, Head of Government (Order N°2893/PR/PM/MC/2011 dated 6 September 2011). A budget of 120 Million CFA francs (about 183'000 €) has been allocated for 2012 and 2013 by the Ministry of Culture to the management committees of the Lakes of Ounianga. The State Party has also confirmed that a 10 year budget would be allocated as part of the new management plan that is being prepared.

IUCN considers that these significant new commitments of the State Party achieve the minimum levels of commitment required by the Operational Guidelines, although it should be noted that best practice would always require that such measures have been prepared and are already in place prior to a nomination being submitted.

IUCN and the State Party have identified the following key aspects for the management plan:

- The Plan should be prepared in the shortest possible time using a local participative process; it should take advantage of the strong commitment of all the stakeholders to preserve the site;
- There is a need to establish a management structure with a transparent mandate and clearly defined terms of reference;
- The business plan should include a financing package that balances revenue and expenditure;
- Site surveillance: meeting at least minimum needs using local human resources;
- Monitoring: scientific research needs to be increased (i.e. no data is available on fauna and flora); simple monitoring actions established (regular photo-surveys, monitoring of the lakes level and of silting up, water quality, visitor counts and traffic monitoring coming from Libya, etc.); establish a data base with all existing datas on the site;
- Environmental education and awareness: continue work done in schools and awareness activities for visitors (including the importance of protecting the lake waters);
- Other field activities in cooperation with local communities: i.e. agronomic support, wise use planning of water resources and health.

To enable the implementation of the management plan, the site manager will be supported by the local authorities and associations, two organizations that are working in the Department of Ennedi, and Swiss

Development Cooperation which has been present in the area for many years.

IUCN considers the management of the nominated property meets the requirements set out in the Operational Guidelines.

4.4 Threats

Urban development and agriculture

To date the site is in a well conserved state apart from impacts of a few public buildings in Ounianga Kébir and the transit roadway between Faya and Libya. It is proposed to include in the buffer zone the area of Ounianga Kébir where there are public buildings and a part of the transit roadway. The *sous-préfet* supports the location of new infrastructure in the part of the village excluded from the nominated property, and in the buffer zone.

Because there has been limited infrastructure development the overall integrity of the nominated property is in good condition. However, some new buildings are not well integrated from an architectural point of view with the traditional houses, which underlines the necessity of implementing an effective management plan for the nominated property, considering the future development of the village as an integral part of management.

Although the populations of Ounianga Kebir (about 9,000) and Ounianga Serir (about 1,000) are small, human impacts on the site are visible: lack of waste management, wastewater discharge is affecting the water quality of Lakes Yoan and Teli, which are close to the two villages. Environmental impact is limited but needs to be integrated into short and long term management plans.

The villages' economy focuses mainly on date palms. Each producer owns between a hundred and a few thousands palm trees and, in 2000, the number of date palms in the area was estimated to more than 500,000 trees including about fifty different varieties. Animal husbandry is also one of the main economic activities of the region including camel herds or mixed herds (camels, goats, sheep, cattle, etc.). Other important income generating activities for local populations are the local collection of salt and native soda using traditional methods that have low environmental impact. In Ounianga Serir, people practice subsistence fishing. From September to December, villagers harvest « *kreep* » (a wild grass that is highly appreciated for human consumption). Under their present form, fishing, as an occasional activity, therapeutic baths and salt extraction do not seem to threaten the site. However, these activities should not be increased from their present levels, without first evaluating their potential impact.

Resource extraction

To date, no mining, oil or gas resources have been discovered in the area and there are no mining or oil

exploitation projects. The only threat could be an overuse of water resources.

As most lakes in the Sahara region, the Lakes of Ounianga will eventually disappear naturally but the survival of the nominated property is assured in the medium term. In relation to the potential over exploitation of water resources, the main threat, as noted by all independent reviewers, is linked to potential development of intensive agriculture in this area. The additional information provided by the State Party has addressed this potential threat by the recently adopted Decree No. 095 which aims to maintain traditional agricultural practices in the nominated property instead of intensive agriculture as this could lead to impacts on the values of the nominated property.

Water extraction from the lakes for use by local communities is very limited and does not seem to result in a lowering of the groundwater level but this needs to be carefully monitored. Any development project that requires a significant use of water resources will require a detailed environmental impact evaluation.

The movement of dunes into the lakes due to strong winds does not impact on the site's integrity as it is limited (about 2 meters a year), and is also a natural process that is an integral part of the landscape values and geomorphological interest of the nominated property.

Road Traffic

Although relatively far from the border, Ounianga Kebir is a customs post where trucks must be unloaded for inspection and then reloaded. These operations take several days and the drivers and their passengers used to stay close to the lake. Nowadays, they are provided with bungalows further from the lake. Truck traffic to and from Libya is growing slowly in Ounianga Kebir, but it is likely that the environmental impact of this traffic has greatly diminished since 2006 when bungalows equipped with toilets were built in the town. Truck passengers arriving in Ounianga Kebir must stay in these bungalows. This strategy also seems to have reduced considerably the impact of tourists and passengers on Lake Yoan and its surroundings.

The future development of traffic to Libya is difficult to predict. In the case of a significant increase, it would be preferable to move the current roadway that leaves Ounianga Kebir towards Libya. This does not seem feasible at the moment and there has been no study on the matter. However the recently adopted Decree No. 630 which establishes the need to develop Environmental Impact Assessments for any new project, including the development of roads and other infrastructure, will be a valuable tool to limit any environmental and social impacts associated with new proposed developments.

Tourism

Development of tourism in the region is moderate. Two tour operators based in N'Djaména, organize tours of the Ounianga site. Data provided by the tour operators and local authorities indicate an annual number of 200 to 600 tourists visiting the site in small groups. Tourists stay in mobile camps organized by tour operators. They leave all their waste at specially designated points within the site or take them back to N'Djaména.

To maintain the site's integrity, in agreement with administrative and traditional authorities, it has been decided that any future touristic facility or hotel must blend in with the local architectural features such as height, color, materials, shape of buildings, etc. Moreover, these facilities must meet eco-touristic and environmental principles and uses. Again the implementation of Decree No. 630 will be needed to consider and regulate these impacts.

IUCN considers the nominated property meets the conditions of integrity as outlined in the Operational Guidelines.

5. ADDITIONAL COMMENTS

5.1 International cooperation

IUCN notes the nominated property is benefitting from support via international cooperation between Chad and a number of States Parties. The IUCN evaluation mission noted that Swiss development cooperation is currently in the course of planning its next phase of engagement with this area, and this could provide additional support for the creation and implementation of the new management plan for the property. The international cooperation being demonstrated in support of the conservation of this site, and associated sustainable development should be noted and welcomed.

6. APPLICATION OF CRITERIA

The **Lakes of Ounianga** has been nominated under criteria (vii) and (viii).

Criterion (vii): Superlative natural phenomena or natural beauty and aesthetic importance

The nominated property represents an exceptional example of permanent lakes in a desert setting, a remarkable natural phenomenon which results from an aquifer and associated complex hydrological system which is still to be fully understood. The nominated property also displays a range of striking aesthetic features, with varied coloration associated with the different lakes and their vegetation, and the presence of dramatic natural desert landforms that all contribute to the exceptional natural beauty of the landscape of the property. The shape and distribution of the lakes, combined with the effect of the wind moving the floating

vegetation in the lakes, gives the impression of “waves of water flowing in the desert”.

IUCN considers that the nominated property meets this criterion.

Criterion (viii): Earth's history and geological features

Some of the lakes in Ounianga (in particular Lake Yoan - Ounianga Kebir) have a continuous and undisturbed sedimentation from the Holocene, providing a unique source of information on the recent paleoclimate of the Saharan region. However, these features are both of specialized interest and of regional significance rather than a basis for defining Outstanding Universal Value. The geomorphological values of the property are able to be recognised via inscription under criterion (vii).

IUCN considers that the nominated property does not meet this criterion.

7. RECOMMENDATIONS

IUCN recommends that the World Heritage Committee adopt the following draft decision:

The World Heritage Committee,

1. Having examined Documents WHC-12/36.COM/8B and WHC-12/36.COM/INF.8B2,
2. Inscribes the **Lakes of Ounianga (Chad)** on the World Heritage List on the basis of criterion (vii)
3. Adopts the following Statement of Outstanding Universal Value:

Brief synthesis

Located in Northeastern Chad, in a hot and hyperarid desert setting with less than 2mm rainfall per year, the Lakes of Ounianga comprises a total of 18 lakes, in two groups, displaying a variety of sizes, depths, colorations and chemical compositions. The property covers 62,808 ha and has a 4,869 ha buffer zone. The Lakes of Ounianga property is located in a basin which, less than 10,000 years ago, was occupied by a much larger lake and has a globally unique hydrological system, sustaining the largest permanent freshwater lakes system in the heart of a hyperarid environment.

The property also displays a range of striking aesthetic features, with varied coloration associated with the different lakes and their vegetation, and the presence of dramatic natural desert landforms that all contribute to the exceptional natural beauty of the landscape of the property. The shape and distribution of the lakes, combined with the effect of the wind moving the floating vegetation in the lakes, gives the impression of “waves of water flowing in the desert”.

Criteria

Criterion (vii)

The property represents an exceptional example of permanent lakes in a desert setting, a remarkable natural phenomenon which results from an aquifer and associated complex hydrological system which is still to be fully understood. The aesthetic beauty of the site results from a landscape mosaic which includes the varied coloured lakes with their blue, green and /or reddish waters, in reflection of their chemical composition, surrounded by palms, dunes and spectacular sandstone landforms, all of it in the heart of a desert that stretches over thousands of kilometers. In addition, about one third of the surface of the Ounianga Serir Lakes is covered with floating reed carpets whose intense green color contrasts with the blue open waters. Rock exposures which dominate the site offer a breathtaking view on all the lakes, of which the colours contrast with the brown sand dunes separated by bare rock structures. The shape and distribution of the lakes, combined with the effect of the wind moving the floating vegetation in the lakes, gives the impression of “waves of water flowing in the desert”.

Integrity

The boundaries of the 62,808 ha property have been designed to ensure its integrity. The property includes the area situated below the 450m contour line within the immediate lake watershed. The 4,869 ha buffer zone includes the village of Ounianga Kebir beside Lake Yoan. Zoning for management of the site takes into account pressures which are now mainly concentrated on Lake Yoan. Ounianga Serir, the smallest village (population of c. 1,000 in 2012) is next to the Lake Teli, inside the property.

The hydrological system of the Lakes of Ounianga is functioning and the water level is stable apart from a slight seasonal variation, thanks to a groundwater supply which compensates evaporation losses.

The beauty and aesthetic values of the property have been well conserved. Although a good number of people live around lakes Yoan and Teli, local initiatives are assuring the compatibility between human activities and conservation of the site's values. Activities planned in the management plan strengthen and complement these initiatives. In addition the recently adopted Decree No. 095 which aims to maintain traditional agricultural practices in the property instead of intensive agriculture will enhance the conservation of the property.

Protection and management requirements

Decree n° 1077/PR/PM/MCJS/2010 of 15.12.2010 designated the Lakes of Ounianga as a « Natural site »; the protected area system of Chad, as established in Law n°14/PR/2008, focuses on fauna and flora conservation and, alone, is not fully suited to Ounianga; thus, responsibility for the property is vested in the Ministry of Culture. There is high level political support for the protection and management of the property at national and local levels.

Under the decree, all activities that could threaten the integrity of the property, including mining, are forbidden. The national designation is similar to IUCN Category III for protected areas. This decree is complemented by the Decree No. 630 which regulates the need to prepare Environmental Impact Assessments for development projects.

The property has an effective management plan in place for the short and long term, and there are adequate resources and staffing provided its implementation and monitoring.

Wetlands such as the Lakes of Ounianga are also protected by Law 14/PR/98. An action plan is implemented through local associations to avoid negative impacts on the site. Conservation efforts focus on factors that could impact the site's integrity, which include effective measures to regulate urban development, address litter and waste management, support sustainable agriculture and ensure that traffic, tourism and other uses is maintained at levels that do not impact the Outstanding Universal Value of the property. Several local associations created at the initiative of the local governmental authorities and the local communities are also responsible for the conservation of the property. These activities are implemented with the support of a Local Management Committee, which provides input for improving the existing management plan.

4. Commends the State Party, and the local communities associated with the property, for their efforts to conserve this property and to maintain the sustainable traditional use of resources in the region;

5. Requests the State Party to implement in full the commitments to both short-term and long term requirements to substantially revise and enhance the management plan for the property, and to provide adequate staffing and resources for its implementation, as noted during the evaluation of the nomination;

6. Requests the State Party to:

a) increase further the involvement and representation of local and indigenous communities in the future conservation and management of the Lakes of Ounianga in recognition of their rich cultural heritage, the legitimacy of their rights to maintain sustainable traditional resource use and their rich local knowledge, including through providing effective and enhanced mechanisms for consultation and collaboration;

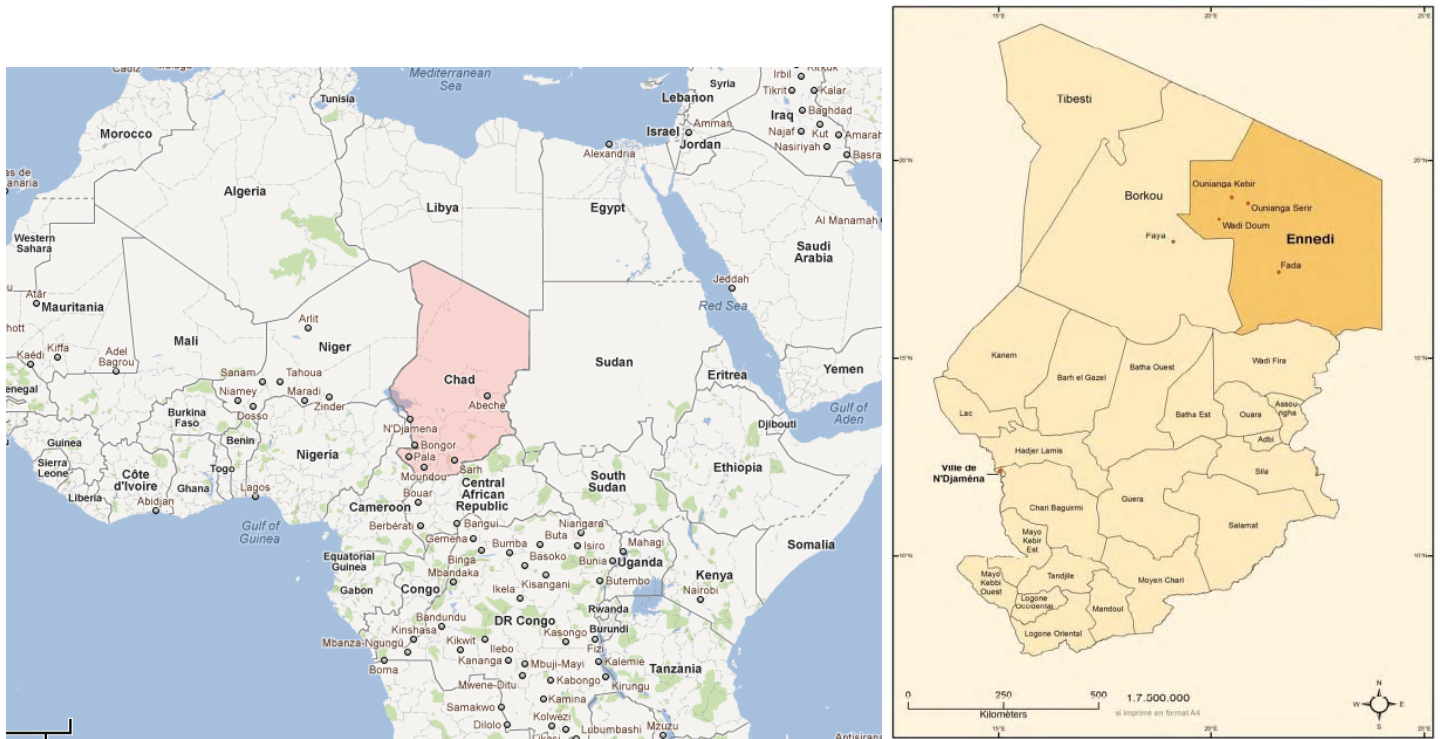
b) enhance the authority and effective work of the Local Management Committee and use it as platform by which the government, agencies and indigenous peoples will discuss, analyze and resolve land use and/or management actions that could represent threats to the property whilst sharing and making the best use of local and traditional

knowledge to improve the existing management plan for the property;

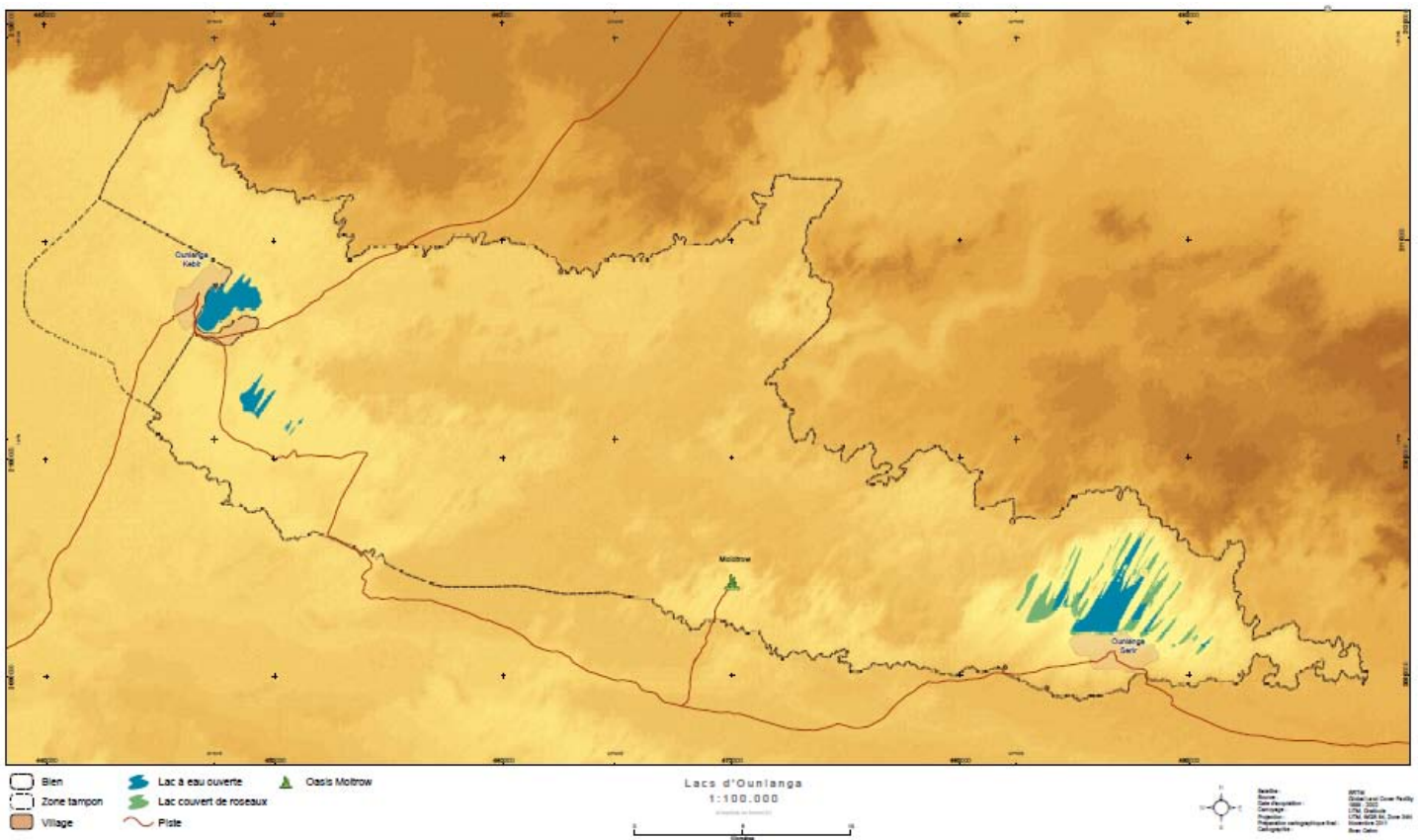
c) provide the necessary human and financial resources to ensure the effective enforcement of the recently approved Decrees No. 095 and 630 for ensuring the conservation and sustainable traditional use of the property.

7. Provide a report to the World Heritage Centre by **1st February 2014** on the establishment and resourcing of the management plan and the progress in implementing the above recommendations, for possible consideration by the World Heritage Committee at its 38th Session in 2014.

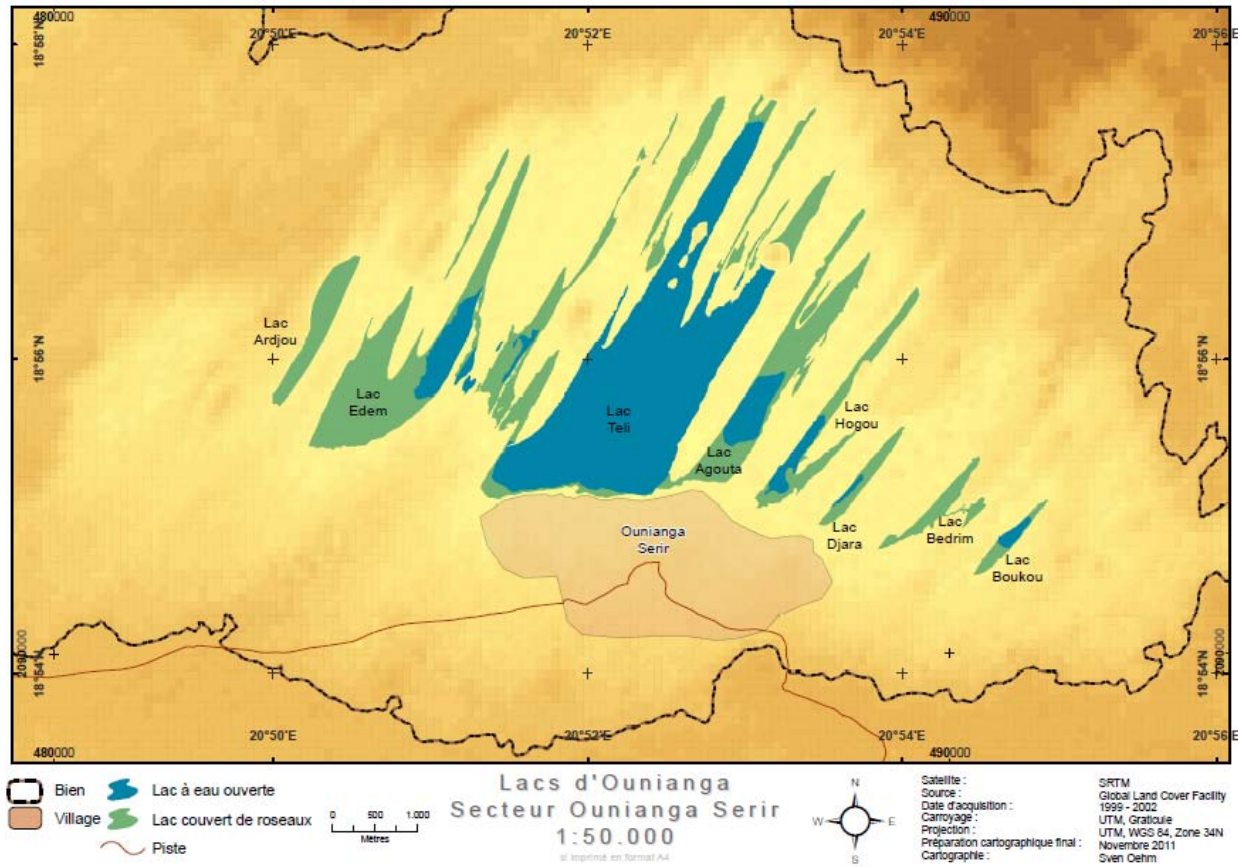
Map 1: Location of Chad in Africa and Ennedi region in Chad



Map 2: Nominated property and buffer zone



Map 3: Ounianga Serir



Map 4: Ounianga Kebir

