IUCN Conservation Outlook Assessment 2014 **(archived)**
Finalised on 22 May 2014

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

Lake Turkana National Parks

SITE INFORMATION

Country:
Kenya
Inscribed in: 1997
Criteria:
(viii) (x)

Site description:
The most saline of Africa's large lakes, Turkana is an outstanding laboratory for the study of plant and animal communities. The three National Parks serve as a stopover for migrant waterfowl and are major breeding grounds for the Nile crocodile, hippopotamus and a variety of venomous snakes. The Koobi Fora deposits, rich in mammalian, molluscan and other fossil remains, have contributed more to the understanding of paleo-environments than any other site on the continent. © UNESCO

SUMMARY

2014 Conservation Outlook

Critical

Lake Turkana's unique qualities as a large lake in a desert environment are under threat as the demands for water for development escalate and the financial capital to build major dams becomes available. Historically, the lake's level has been subject to natural fluctuations in response to the vicissitudes of climate, with the inflow of water broadly matching the amount lost through evaporation (as the lake basin has no outflow). The lake's major source of water, Ethiopia's Omo River is now targeted for a series of major dams and associated irrigated agricultural schemes, in particular sugar plantations. These commercial sugar plantations, located in the Omo Delta, are now fully underway and will have at least as significant an impact on Lake Turkana as the Gibe III dam. One of the dams and a second associated hydropower project (without a reservoir) have been completed and a third is at an advanced stage of construction. There are still strategic choices to be made on the management of the lake basin's water resources, but it seems inevitable that the ecology and biodiversity values of the property will be adversely affected by these development pressures. Apart from the impact of these major changes, there are numerous challenges at the site management level, with wildlife populations thought to be in decline as a result of poaching pressure, over-grazing by domestic stock and habitat change associated with the receding shore-line. Increased levels of investment in site management are clearly required. In addition, major oil deposits have been discovered nearby and their exploitation will require rigorous environmental safe-guards if the integrity of the property is going to be adequately protected.

Current state and trend of VALUES

High Concern
Trend: Data Deficient

Although the property retains its value as one of the world's most important

fossil sites, its biodiversity is under escalating pressure from development activities outside the site. Upstream use of water is lowering the level of the lake, moving the shoreline, affecting its ecology, and increasing the salinity of the lake's water. Although there is little monitoring of the area's biodiversity and resources, local reports suggest that prominent wildlife species are in decline and several species have become locally extirpated as a result of poaching since the property was inscribed.

Overall THREATS

Very High Threat

The biodiversity values of the property are seriously threatened by the progressive damming of the inflowing rivers and upstream use of water for irrigated agriculture and other uses. Gibe III lies at a point where it can capture about two-thirds of the Omo River's total flow which is combined with development of large-scale irrigated plantations. This is having far-reaching ecological consequences, lowering the lake levels, moving the shore-line, dramatically increasing salinity and reducing the extent of seasonal flooding and nutrient replenishment. The impact of the commercial sugar plantations in the Omo Delta, which are now fully underway, will be at least as significant an impact on Lake Turkana as the Gibe III dam. The effect of these large-scale changes is being exacerbated by over-use of diminishing resources by people living around the shores of the lake, including over-grazing, poaching of wildlife, over-fishing and tree-cutting, and creating ever-increasing demands for resources from within the property. The recent discovery of significant oil deposits in the lake basin creates further risks to the integrity of the property. Development of Lake Turkana Wind Power plant might negatively affect biodiversity – especially waterbirds many of which are migratory.

Overall PROTECTION and MANAGEMENT

Serious Concern

Protection and management of the site is severely constrained by its remote location, lack of infrastructure and low levels of funding. Although an out-of-date management plan exists, there is little indication that its provisions have been implemented, and the parks' wildlife and other resources seem to be in decline. The bigger threats to the biodiversity values of the property – damming of the inflowing rivers and oil exploitation elsewhere in the lake basin – could bring

substantial economic benefits and seem likely to take precedence in national development priorities.

FULL ASSESSMENT

Description of values

Values

World Heritage values

▶ **Fossil deposits**
Criterion:(viii)

Fossil deposits at Koobi Fora (in Sibiloi National Park) include pre-human, mammalian, molluscan and other fossils that have contributed more to the understanding of human ancestry and palaeo-environments than any other site in Africa (SoOUV, 2012). The fossil remains include a petrified forest thought to have grown seven million years ago (when the area was much wetter than it is today), together with a great diversity of extinct fauna including giant tortoise, crocodile, behemoth mammoth, rhinos, otters and hippos (UNEP-WCMC, 2012). The complexity of the fossil record enables the reconstruction of palaeo-environments dating back four million years (SoOUV, 2012). Five species of hominid fossil have been discovered including the earliest of the australopithecines, Australopithecus anamensis, estimated to be 3.8-4.2 million years old (SoOUV, 2012; Hilton-Barber and Berger, 2002)

▶ **Complex of geological features**
Criterion:(vii)

Lake Turkana is Africa’s fourth largest lake and the most saline of them (SoOUV, 2012). It is situated in a semi-desert environment, characterized by recent volcanic, erosional and sedimentary land forms. The area’s main geological features stem from the Pliocene and Holocene periods (from four million to 10,000 years ago). The World Heritage property (1,615 km2) covers three separate National Parks – Sibiloi (on the eastern shores of the

lake), Central and South Islands, together with an aquatic zone stretching 1 km into the lake. These three areas encompass this diversity of geological features, including extensive sedimentary deposits, volcanic features and geological faulting (SoOUV, 2012)

► Diversity of aquatic and lakeshore habitats in a semi-desert environment

Criterion:(x)

The parks include a great diversity of aquatic, shoreline and semi-desert terrestrial habitats (UNEP-WCMC, 2012). The waters of the lake are 2.5 times saltier than the normal maximum limit of drinking water, but it is drinkable and supports a diversity of freshwater fish species and, where suitable muddy substrate exists, beds of submerged aquatic macrophytes (Potamogeton pectinatus) and shoreline grasses (UNEP-WCMC, 2012). The lakeshore substrates vary from rock to pebble, sand and mud (Birdlife, 2012), while terrestrial habitats include Acacia savannas, Commiphora bushlands, grassy plains, rocky ridges and groves of desert date and doum palms (SoOUV, 2012)

► Diversity and abundance of birds

Criterion:(x)

Lake Turkana is an internationally recognized Important Bird Area (Birdlife, 2012), with 84 waterbird species, including 34 Palaearctic migrants (for which it serves as an important flyway and stop-over site for birds on passage). More than 10% of the entire East African/South East Asian population of Little Stints (more than 100,000 individuals) may winter here. At least ten regionally-threatened species of birds breed, including African skimmer (UNEP-WCMC, 2012)

► Rare and endangered fauna

Criterion:(x)

The lake supports the world’s largest colony of Nile crocodile (SoOUV, 2012), with an estimated population of 14,000 individuals breeding on Central Island (in 1968; Birdlife, 2012). Rare and endangered mammals include hippopotamus, wild dog, lion, cheetah, Grevy’s zebra and Lelwel hartebeest

(UNEP-WCMC, 2012)

▶ **Endemic species of fish**
Criterion:(x)

The lake supports 60 species of freshwater fish, including seven endemic species (UNEP-WCMC, 2012)

Assessment information

Threats

Current Threats
Very High Threat

Upstream use of water throughout the Lake Turkana basin, especially the progressive damming of the Omo River in Ethiopia, is leading to a dramatic lowering of lake levels and major associated changes in the lake's ecology. These trends are likely to accelerate, severely threatening the biodiversity values of the property. The impacts of upstream water usage are further exacerbated within the property by excessive resource use by local people, including over-grazing, poaching of wildlife, over-fishing and tree-cutting.

▶ **Dams/ Water Management or Use**
Very High Threat
Outside site

The inflowing rivers are being progressively dammed and an ever-increasing amount of the water that used to flow into the lake is being used upstream for irrigation and other uses (SOC, 2012). The Omo River (which runs through Ethiopia) accounts for 90% of the lake's inflow, and is being transformed through construction of a series of dams and a tunnel-based hydropower plant. Two have been completed and a third (Gibe III) was more than 50% complete by early 2012 (SOC, 2012). By 2024 irrigated sugar plantations along the river are expected to use 16% of the basin's water and lead to a

8.4 m reduction in lake level (SOC, 2012). These commercial sugar plantations are now fully underway. According to other estimates, the 150,000 ha plantations foreseen under the Kuraz sugar scheme would alone require up to 28.2% of the Omo river's inflow to Lake Turkana at 70% irrigation efficiency. The revised Lower Omo irrigable area would require 33.5% of the Omo's annual flow, causing the lake to permanently drop 13 metres from its current level. The 13-metre lake level drop will reduce the lake volume to 59% of its current sustainable volume (Avery, 2012). Other assessments of water use efficiency in these irrigation projects suggest that the lake would reduce to a mere 42% of its current volume and decline 22m in depth (International Rivers, 2013).

► Other Ecosystem Modifications

Very High Threat
Inside site
Outside site

The loss of seasonality in water inflow resulting from dams on all the lake's tributaries will reduce the extent and quality of floodplain vegetation and impact the ecology of aquatic habitats that are important fish-spawning sites. Furthermore, river-borne silt that would have enriched the floodplains, delta and lake will be deposited in the dams, with major ecological implications for the lake Turkana ecosystem and biodiversity.

► Droughts, Desertification

High Threat
Inside site
Outside site

The lake level dropped by 10 m between 1975 and 1992, partly as a result of drought in the catchment areas (Birdlife, 2012). Periodic droughts exacerbate the problems associated with upstream use of water, denying the lake the fresh water needed to compensate for evaporation losses (since the lake has no outflow). Furthermore, the salinity of the lake can be expected to increase further due to increased evaporation if global warming leads to a general rise in temperature around the lake.

► Livestock Farming / Grazing

High Threat

Inside site
Outside site

Human populations around the lake are becoming more sedentary and associated grazing pressures from domestic stock are becoming more intensive, leading to over-grazing. This is resulting in deterioration of lakeshore habitats, impacting biodiversity (Birdlife, 2012). Although local pastoralists are guaranteed grazing and watering rights in the park at times of drought, the impact of grazing is affecting a large part of the park permanently, resulting in overgrazing, trampling of vegetation and an increase in woody vegetation (SOC, 2012).

► Subsistence hunting

High Threat
Inside site
Outside site

Wildlife populations seem to be declining and the few remaining large mammals are concentrated in the most secure parts of the property, indicating that poaching is a significant threat. Certain flagship species, such as reticulated giraffe and Grevy’s zebra are reported to have disappeared altogether from the area since the property was listed (SOC, 2012).

► Fishing / Harvesting Aquatic Resources

Data Deficient
Inside site
Outside site

Illegal fishing activities are taking place inside the property (SOC, 2012), and disturbance by fishermen on Central Island has reportedly caused the abandonment of the only known breeding site of African skimmers, a regionally-threatened bird (Birdlife, 2012). There are, however, no fish stock assessment data to enable assessment of the broader impact of over-fishing on the fisheries resource. Past attempts to initiate large-scale industrial fishing operations have so far failed (UNEP-WCMC, 2012), but some pastoralist (Turkana) communities have adapted to fishing in response to drought and famine (Mission report, 2012)

► Logging/ Wood Harvesting

Low Threat

Inside site
Outside site

Trees are reportedly taken for fuelwood and charcoal (UNEP-WCMC, 2012), exposing the thin soils to strong winds.

► Tourism/ visitors/ recreation

Low Threat
Inside site
Outside site

The exposed ground at some of the fossil sites are scattered with fossils that could easily be picked up and taken by visitors (Mission Report, 2012)

► Other Activities

Data Deficient
Inside site
Outside site

Crocodiles are heavily persecuted by fishermen who destroy nesting sites, including those on South and Central Islands (Mission Report, 2012)

Potential Threats

High Threat

The greatest potential threat arises from the recent discovery of a major oil field on the southwestern shores of Lake Turkana, and the possible impact of its development on the region and the property.

► Oil/ Gas exploration/development

High Threat
Outside site

Oil exploration is taking place across the Lake Turkana basin, (SOC, 2012), and significant finds have been made recently (on the southwestern shores, outside the property). Development of these resources seems set to transform the local economy, with construction of major new infrastructure and significant associated risks.

► Commercial/ Industrial Areas

Data Deficient
Outside site

The governments of Kenya, South Sudan and Ethiopia are collaborating on a major new infrastructure corridor through northern Kenya, to link a major new port at Lamu (on Kenya's north coast) with other parts of the region (Wikipedia, 2012). Although this is still in the early planning stages it may have a significant impact on developments at Lake Turkana (SOC, 2012)

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

Data Deficient
Outside site

The damming of the Omo River and associated developments will lead to significant ecological change and diminish the availability of resources for the 300,000 people of six tribal groups who depend on them. Most of these people are extremely poor, and there is high potential for violent conflict over diminishing resources. Although no-one lives inside the property, local pastoralists are allowed grazing rights in the dry season and pressure for resources from the park is likely to escalate (UNEP-WCMC, 2012).

► Other

Data Deficient

Development of a mega Wind power generation in the area might negatively affect biodiversity, particularly the lake's 84 water bird species, including 34 Palaearctic migrants , and other migratory soaring birds passing through the site

Protection and management

Assessing Protection and Management

► Sustainable finance

Serious Concern

The property is significantly under-resourced, and financing for management is provided from KWS general resources (mostly generated from tourism at other parks).

► Relationships with local people

Some Concern

There is little information on community relations, but circumstantial evidence – for example: the decline of wildlife populations, the year-round presence of domestic stock in Sibiloi NP, and destruction of crocodile nests by fishermen– suggest that they are not as good as they need to be. Kenya Wildlife Service (KWS) has recently appointed a community warden at Sibiloi NP, who has started to hold discussions with the pastoralist communities that use the park for grazing. Alternative grazing areas outside the park that might be brought into use through provision of borehole water have now been identified, raising the possibility of excluding domestic animals from the property (Mission Report, 2012) KWS notes a need to involve the local community in management of the WHS through recruiting and supporting community game scouts, collaboratively developing grazing plan and establishing grazing committees and working closely with local conservation committees or organized groups (KWS, Consultation, 2013).

► Legal framework and enforcement

Some Concern

The property enjoys the highest level of legal protection, under the Kenya Wildlife Act and the National Museums and Heritage Act 2006 (Mission Report, 2012). The three parks are owned and managed by the Kenya Wildlife Service (KWS) with the National Museums of Kenya (NMK) responsible for the fossil sites. In general, national parks are protected against any settlement or resource use, but special provisions were invoked at the time of creation of Sibiloi NP (SNP) allowing local pastoralist communities access to grazing and water ‘at times of difficulty’ (Mission Report, 2012). However, these provisions have been interpreted very broadly and most of the northern part of the park is subject to year-round grazing of domestic stock. Enforcement of legislation is generally weak (Mission Report, 2012)

► Integration into regional and national planning systems

Serious Concern

Lake Turkana and its wider catchment area are shared between Kenya and Ethiopia, with 90% of the lake's inflow coming from the Ethiopian side, via the Omo River delta at the northern end of the lake. There is no bi-lateral agreement in place concerning management of this shared resource (Mission Report, 2012)

► Management system

Some Concern

The property (1,615 km2) comprises three separate components, namely Sibiloi National Park (1,571 km2), South Island NP (SINP) (39 km2) and Central Island NP (CINP) (5 km2) managed by Kenya Wildlife Service. The National Museums of Kenya manage the fossil sites. Neither of the islands has a permanent KWS presence, and while SINP falls under the jurisdiction of SNP, CINP is managed from Kalokol on the other side of the lake. There seem to be two (alternative?) management plans, one covering all three components of the property for the period 2001-5 (Njuguna, 2001), the other covering only the SNP and SINP components for the period 2002-7 (Mission Report, 2012). It is not clear which of these two plans took precedence but neither of them has been implemented to any significant extent (Mission Report, 2012). A new management plan was in preparation at the time of a recent joint UNESCO/IUCN reactive monitoring mission (Mission Report, 2012). KWS has indicated that the new Protected Area Planning Framework (PAPF) was applied in order to ensure that all new KWS protected area management plans are developed according to a standardized process and have a similar structure (Consultation, 2013).

► Management effectiveness

Serious Concern

Management faces considerable challenges in such a remote and inhospitable location where poor infrastructure and social facilities make it extremely difficult to operate and maintain a competent and committed staff. One of the two management plans indicated a projected budget deficit for the plan period of US$ 1.37 million, and it seems that neither the proposed

zoning scheme nor most of the prescribed actions have been implemented (Mission Report, 2012)

► Implementation of Committee decisions and recommendations

Some Concern

Following the property's inscription in 1997 and subsequent extension (2001), there were no committee decisions or recommendations until 2011. At that time the committee (1) expressed concern over the construction of the Gibe III dam and related developments on the Omo River in Ethiopia, (2) requested that Kenya and Ethiopia request a reactive monitoring mission to review the issue and (3) encouraged all financial institutions to suspend financial support for dam construction. A mission was subsequently invited to Kenya, but construction of the Gibe III dam has continued and was reported to be 50% completed by March 2012 (Mission Report, 2012). At its 36th session (June 2012) the committee re-iterated its concerns about the dam construction and related developments, but stopped short of inscribing the property on the List of World Heritage in Danger (SOC, 2012; Decision 36COM 7B.3). The Committee at its 36th Session has also requested the State Party of Ethiopia to invite a reactive monitoring mission to assess the impacts of GIBE III dam and complete the conclusions of the 2012 monitoring mission to Kenya. The State Party of Ethiopia has not yet invited the monitoring mission (SOC Report. 2013).

► Boundaries

Serious Concern

The boundaries of the property lie 1 km offshore, encompassing a relatively small proportion (< 2%) of the lake's area. SNP protects about 13% of the Lake's shoreline, including some important shoreline habitats. However, the bulk of the Lake's important biodiversity exists outside the property, where it has no special protection status. None of the aquatic boundaries are demarcated in any way, making it difficult to exclude illegal fishing. Furthermore, some of the important fossil sites (including two research sites at Ileret and Turkwel) are not included in the property (Mission Report, 2012)

► Staff training and development

Serious Concern

Currently the Lake Turkana World Heritage site has 40 staff members split between the 3 national parks (Sibiloi, Central and South Island National Parks) vast majority of which are security personnel. This number is however insufficient to ensure effective management of the entire area especially in more remote areas of (KWS, Consultation, 2013). There is no information on staff training and development, but it has been noted that the staffing situation at the property is particularly difficult, with many staff positions remaining unfilled and very high levels of staff turn-over due to poor living conditions, lack of schooling etc (Mission Report, 2012)

► Sustainable use

Some Concern

Since the establishment of SNP local pastoralists have been allowed grazing rights within the park during periods of drought. Regulation of this access has, however, not been effective and much of the park is used by pastoralists throughout the year (Mission Report, 2012). Available evidence suggests that wildlife populations are declining, and that local community-use of resources is not organized within the framework of an agreed programme for sustainable use.

► Education and interpretation programs

Some Concern

The Provisional Integrated Management Plan for the parks (Njuguna, 2001) notes that ‘environmental awareness within the park environ has not been undertaken’, and there is no mention of any park education programme coming to the attention of the 2012 joint UNESCO/IUCN reactive monitoring mission team (Mission Report, 2012)

► Tourism and interpretation

Mostly Effective

There are very few visitors to any of the parks, the total for SNP and CINP during the 1990s averaging about 500 visitors per year to each park (Njuguna, 2001). There is however, a small museum at Koobi Fora and three notable fossils (a giant tortoise, crocodile and elephant) are protected in situ within specially-constructed buildings. There are designated camping sites

with rudimentary facilities in SNP, and an adequate network of 4x4 tracks to provide for suitably-equipped visitors. The scenic values of the property and its fossil sites clearly present significant opportunities for the development of tourism.

► Monitoring

Serious Concern

Although there is no formal and systematic monitoring programme, KWS, NMK and the Department of Resource Surveys and Remote Sensing carry out some monitoring (UNEP-WCMC, 2012). A survey of birds was carried out in 1992 (UNEP-WCMC, 2012), and aerial surveys of 14 species of large fauna have been carried out at SNP periodically between 1978 and 1997. No recent wildlife census data were available to the recent UNESCO/IUCN mission (Mission Report, 2012), but various stakeholders expressed a widely-held belief that wildlife populations have declined significantly since inscription (Mission Report, 2012)

► Research

Mostly Effective

The rich fossil deposits at Koobi Fora have been the subject of extensive research by Richard Leakey and other scientists since the 1960s and this area continues to yield important fossil finds. National and foreign universities provide expertise in research, monitoring and impact assessment (UNEP-WCMC, 2012) but there is no systematic management-orientated research programme for the parks.

Overall assessment of protection and management

Serious Concern

Protection and management of the site is severely constrained by its remote location, lack of infrastructure and low levels of funding. Although an out-of-date management plan exists, there is little indication that its provisions have been implemented, and the parks' wildlife and other resources seem to be in decline. The bigger threats to the biodiversity values of the property – damming of the inflowing rivers and oil exploitation elsewhere in the lake basin – could bring substantial economic benefits and seem likely to take precedence

in national development priorities.

▶ **Assessment of the effectiveness of protection and management in addressing threats outside the site**
Serious Concern

The main threat to the property arises from the damming of inflowing rivers and the use of water for irrigated agriculture which is progressively lowering the level of the lake, altering its ecology and impacting on its biodiversity values. The actions of the Kenyan and Ethiopian governments suggest that the socio-economic benefits of upstream use of water outweigh the environmental costs, and there appears to be little willingness to curb these developments.

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ **Fossil deposits**
Good
Trend:Stable

The fossil deposits at Koobi Fora and other locations are well protected and most excavation sites are re-buried once investigations are completed (Mission Report, 2012). Since many of the richest fossil sites are close to the present shore-line it is quite possible that the lowering of lake levels will allow access to further valuable fossil sites currently lying underwater.

▶ **Complex of geological features**
Low Concern
Trend:Stable

The existing geological attributes and geomorphological formations of the property are unlikely to be altered significantly by development activities. Rates of sedimentation in the Omo River delta and lake may be reduced if silt is deposited in upstream impoundments rather than being carried into the

river’s lower reaches.

► Diversity of aquatic and lakeshore habitats in a semi-desert environment

Critical
Trend:Deteriorating

Receding water levels and reduced seasonal fluctuations resulting from the damming of the Omo River will alter the location and characteristics of the shoreline significantly. Once completed, the filling of the Gibe III dam will continue to impact the lake, lowering its level by 1.65 to 4 metres (even without any associated use of water), reducing the silt deposition into the lake and delta; and by increasing water losses through evaporation from the reservoir. A drop in lake levels of 1.65 m would move the shoreline by 2-3 km (Mission Report, 2012). Furthermore, the salinity of lake waters is likely to increase significantly as the balance between rate of inflow and evaporation changes, with unpredictable consequences for the lakeshore and aquatic vegetation (and associated ecology).

► Diversity and abundance of birds

Data Deficient
Trend:Data Deficient

There is little information on trends in the diversity and abundance of birds, although some useful baseline data exist (Bennun and Njoroge, 2001).

► Rare and endangered fauna

Critical
Trend:Deteriorating

There are no recent wildlife census data, although stakeholder reports suggest significant declines in the populations of key species of endangered fauna, including crocodile. It seems that Grevy’s Zebra and reticulated giraffe have been recently extirpated (Mission Report, 2012)

► Endemic species of fish

Data Deficient
Trend:Data Deficient

The status of the lake's fish species is unknown

Summary of the Values

▶ **Assessment of the current state and trend of World Heritage values**
High Concern
Trend: Data Deficient

Although the property retains its value as one of the world's most important fossil sites, its biodiversity is under escalating pressure from development activities outside the site. Upstream use of water is lowering the level of the lake, moving the shoreline, affecting its ecology, and increasing the salinity of the lake's water. Although there is little monitoring of the area's biodiversity and resources, local reports suggest that prominent wildlife species are in decline and several species have become locally extirpated as a result of poaching since the property was inscribed.

Additional information

Key conservation issues

▶ **Management of water**
Regional

Ensure that strategic decisions on the management of water are well-informed and include adequate safeguards for the maintenance of Lake Turkana's outstanding values

▶ **Monitoring environmental impacts of developments outside the property**
National

Establish baseline data on key environmental attributes of the lake's ecology, as a matter of urgency and develop a programme to monitor the impacts of reduced water input so that future management can be adapted as required.

► Oil exploration and development

National

Ensure that no oil exploration takes place within the property, and that exploitation of recently-discovered reserves elsewhere in the lake basin is carried out to the highest possible environmental standards to minimize risks.

► Management planning

National

Complete the draft management plan and ensure its full implementation

► Improve management effectiveness and law enforcement

National

Invest in staff and facilities to protect the property against poaching, illegal fishing and other forms of resource use that are impacting its ecological integrity. Develop a clear grazing reduction strategy in collaboration with pastoral communities and ensure its implementation. Demarcate the offshore boundary, and establish a permanent KWS staff presence in vulnerable areas of the property including both the islands and the northern parts of Sibiloi NP.

► Extension of the property

National

Evaluate the scope for extending the property to include other important fossil sites (such as Turkwel and Ileret) and prepare a re-nomination under cultural criteria so as to recognize the important contribution of the site’s hominid fossils to our understanding of human evolution

► Wildlife census

National

Carry out a wildlife census to update knowledge of the present status of key species, including the crocodiles

► Animal re-introduction

National

As part of a long-term programme to restore the full compliment of native

species to the area, consider the scope for re-introduction of reticulated giraffe and Grevy’s zebra which have recently been extirpated

Benefits

Understanding Benefits

▶ **Is the protected area valued for its nature conservation?**

Site is has rich biodiversity and is on a major flyway for many migrant birds. Many threatened species including endemic ones are found at the site.

▶ **Fishing areas and conservation of fish stocks**

Fishing is an important livelihood to some residents

▶ **History and tradition**

This is an important archaeological site

▶ **Collection of medicinal resources for local use, Outdoor recreation and tourism**

1. Potential as a tourist site but this is not developed.
2. Local people also rely on herbal medicine harvested at the site. There is also commercial harvesting of Aloe

▶ **Importance for research, Contribution to education**

It is a important site for archeological research. But this benefits people from outside the community

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	Friends of Lake Turkana		Friends of Lake Turkana is a Kenyan organization whose objective is to strengthen natural resource management in the Lake Turkana Basin. The purpose of the project is to engage stakeholders from Lake Turkana basin in dialogue about the current status of oil exploration and production, dam construction and other major infrastructural development in the region and the implication of these initiatives on the land rights, environment and culture of the people.

Compilation of potential site needs

№	Site need title	Brief description of potential site needs	Support needed for following years
1	Biodiversity Research and monitoring	Monitoring and inventory gaps exist.	

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