

AFRICA

SALOUM DELTA

SENEGAL



WORLD HERITAGE NOMINATION – IUCN TECHNICAL EVALUATION

SALOUM DELTA (SENEGAL) – ID No. 1359

IUCN RECOMMENDATION TO 35th SESSION: Not to inscribe the property under natural criteria

Key paragraphs of Operational Guidelines:

77 Property does not meet natural criteria.

78 Property does not meet conditions of integrity or protection and management requirements.

1. DOCUMENTATION

a) **Date nomination received by IUCN:** 15 March 2010.

b) **Additional information officially requested from and provided by the State Party:** No supplementary information was requested.

c) **Additional literature consulted:** wide consultation of literature including: BirdLife International (2009). **Important Bird Area factsheet: Delta du Saloum, Senegal;** BirdLife International (2010) **Important Bird Areas factsheet: Arquipélago dos Bijagós.** Dia, I.M.M. (2003). *Elaboration et mise en oeuvre d'un plan de gestion intégrée - La Réserve de biosphère du delta du Saloum, Sénégal.* UICN, Gland, Suisse et Cambridge, Royaume-Uni. xiv + 130 pp. Diouck, D. (1999). **Adaptations aux modifications du milieu des Colobes bais (*Colobus badius temminckii*) de la forêt de Fathala, parc national du Delta du Saloum, Sénégal.** PhD Thesis. Dakar : UCAD. 165 pp. Dodman, Tim, Ndiaye Mame Dagou Diop & Sarr Khady (eds.). (2008). **Conservation Strategy for the West African Manatee.** UNEP, Nairobi, Kenya and Wetlands International Africa, Dakar, Senegal. Dupuy, A.R. (1986). **The Status of Marine Turtles in Senegal.** Marine Turtle Newsletter 39:4-7. FAO (2007). **The World's Mangroves 1985-2000.** FAO Forestry Paper 153. Rome, Italy.; IUCN (1992). **Protected Areas of the World: a Review of National Systems. Volume 3: Afrotropical.** Compiled by WCMC. IUCN, Gland, Switzerland and Cambridge, UK. xii + 360 pp. Keijl G.O., Brenninkmeijer, A., Schepers, F.J., Stienen, E.W.M., Veen, J. and Ndiaye A. (2001). **Breeding gulls and terns in Senegal in 1998, and proposal for new population estimates of gulls and terns in north-west Africa.** *Atlantic Seabirds* 3(2): 59-74. LPO Mission rapaces. (2009). **Compte-rendu du comptage de rapaces insectivores (*Faucon crécerellette* et *Elanion naucier*) fréquentant le dortoir de l'île de Kousmar (Kaolack / Sénégal) le 21 janvier 2009.** LPO, 4p. Mullié, W.C. (2009). **Birds, locusts and grasshoppers.** In: Zwarts, L., Bijlsma, R.G., van der Kamp, J., Wymenga, E. (eds.) **Living on the edge. Wetlands and birds in a changing Sahel.** KNNV Publishing, Zeist. pp. 202 -223. Oates, J.F., Struhsaker, T., McGraw, S., Galat-Luong, A., Galat, G. and Ting, T.

(2008). **Procolobus badius.** In: IUCN 2010. IUCN Red List of Threatened Species. Version 2010.3; Powell, J. and Kouadio, A. 2008. **Trichechus senegalensis.** In: IUCN 2010. IUCN Red List of Threatened Species. Version 2010.4; Sadio, S. **Pédogenèse et potentialités forestières des sols sulfatés acides salés des tannes du Sine-Saloum.** ORSTOM, Paris, 1991, 269 pp. UNDP (2007). Project Title: **Integrated Ecosystem Management in Four Representative Landscapes of Senegal, Tranche 2.** Project submitted to the GEF by UNDP. 51 pp.

d) **Consultations:** two external reviewers consulted. The mission also met and travelled with representatives of the national cultural and natural heritage administrations, national office of UNESCO, and the President and Vice-President of the Rural Council for the area. The mission met with the Director of Cabinet, Ministry of Culture, the Adjoint Director of the Park Service, and the Sous-Préfet for Toubakouta Ibou Ndiaye. Consultations with Ecoguards and other park staff, inhabitants of the village inside the park, a selection of local artists and politicians, the Director of the Forest of Fathala and the President of the Bamboing marine protected area were also undertaken.

e) **Field visit:** Dr Wendy Strahm, September – October 2010 (joint mission with ICOMOS).

f) **Date of IUCN approval of this report:** 29 April 2011.

2. SUMMARY OF NATURAL VALUES

The nominated property named the Delta du Saloum (DDS) (Saloum Delta in English) is located c.150 km south of Dakar, some 50 km southwest of Kaolack, and 20 km from Banjul in the Gambia. The nominated property lies within the wider area of the delta, which also extends across the border into the Gambia, formed by a number of rivers including the Saloum, Sine, Bandiala and Diombos. The delta covers an estimated 500,000 ha, which includes some 60-80,000 ha of mangroves. The nomination put forward is for a mixed property and the IUCN evaluation below considers the natural values of the area, whilst the evaluation of cultural values will be carried out by ICOMOS.

The whole area of the delta of the Saloum includes some 200 islets separated by narrow channels of mostly saline to somewhat brackish water, and is protected in part by some sandy spits and islets on the seaward side which are very important for breeding and migratory waterfowl and marine species. Rising from 0-5 m above sea level (apart from the “artificial” islands which have been created by shell middens created over two thousand years which may reach 10 m in height), the delta includes important wetland habitats including mangrove swamps, coastal marine, and an adjoining area of dry woodland.

There is a complex and confusing pattern of designation of protected areas within the area: 180,000 ha of the delta was designated as a Biosphere Reserve in 1980, including the smaller 76,000 ha Saloum Delta National Park (SDNP), 73,000 ha of which has also been designated as a Ramsar site. SDNP contains 61,000 ha of marine habitat, 7,000 ha of mangroves and saltwater vegetation, and 8,000 ha of dry savanna and forest. Crossing the national border to the south, the delta is contiguous with the 4,940 ha Niumi National Park in the Gambia.

The nominated property, DDS, includes 145,811 ha which includes the SDNP in its entirety as well as a community-managed marine protected area (Bamboung) and a number of other mangrove islands falling under different management regimes. Thus DDS includes a much larger area of mangrove islets than does that of the National Park, mainly because it is these islets which include shell middens of cultural importance. The mangroves in the nominated zone are largely intact, whilst mangroves further north and east of the property have been killed by increased soil salinity. A “buffer zone” of 78,842 ha includes, in addition to villages and cultivated lands, the “community nature reserve” of Missira.

A high number of waders and seabirds, many occurring in large congregations, are found in the DDS which is an Important Bird Area defined by BirdLife International. The sandy islands, particularly “Île aux Oiseaux”, host important breeding populations of African Royal Terns, Caspian Terns, Slender-billed Gulls and Grey-headed Gulls. Of greatest interest is the African Royal Tern, of which Île aux Oiseaux has the largest Royal Tern breeding colony in the world. Although the nomination cites the Royal Tern as threatened, it has been listed by IUCN as Least Concern. Recorded bird numbers of 66,784 individuals on Île aux Oiseaux during the breeding season (May 2009) and 120,000 wintering waterfowl comprising 95 species (1998) are provided in the nomination. Thus this island as well as the sandbars and mudflat habitat in the DDS provides an important spectacle of large numbers of birds during the breeding season as well as during the northern winter as the site lies along the East Atlantic Flyway. Other notable bird species occurring in the DDS include Lesser and Greater Flamingo, Great White and Pink-backed Pelicans, Sacred Ibis, Western Reef-egret, Goliath and

Black Herons, African Fish Eagle and Osprey (none listed as threatened by IUCN).

The nomination lists the presence of West African Manatee (Vulnerable) as an important attribute, although in Senegal, the Manatee is close to extinction, noting that in most areas of the country it has not been seen for many years. Although there have been some reported sightings in the delta of the Sine Saloum River near Kaolack, the species is considered to be severely depleted and threatened and given the saline water in the DDS, it is unlikely to be a very important element inside the nominated site. The Atlantic Hump-backed Dolphin (Vulnerable) is cited as present in the DDS, with 100 animals out of an estimated population size of several thousand stretching from the coasts of southern Morocco to Angola. Marsh Mongoose and Nile Monitor Lizard are also noted in the property but are not globally threatened.

Thirty-six species of large and medium sized terrestrial mammals, are noted in the dry forest area of the DDS. Almost all of these species have a fairly widespread distribution and while are perhaps threatened in Senegal and therefore of national importance, are not threatened at a global level (e.g. Sitatunga and African Clawless Otter). The most interesting species is the Endangered Red Colobus, a monkey of which a subspecies (*Procolobus badius temminckii*) occurs in the DDS where it is at the north-western limit of its range (Senegal, Gambia, Guinea-Bissau and north-west Guinea). This species seems to be declining throughout most of its range, and although the subspecies *temminckii* occurs in a number of protected areas (e.g. Abuko NP and River Gambia NP in the Gambia, Niokolo-Koba NP in Senegal; and Cufada NP in Guinea-Bissau), the absence of large and well-managed protected areas means that the status of this subspecies is likely to continue to decline. It is estimated that there are probably fewer than 400-500 individuals of *P. b. temminckii* surviving in Saloum Delta NP, and probably fewer than 100 in the isolated Niokolo-Koba and north-west Guinea population. Therefore despite its relatively small remnant of dry forest, the DDS may have the potential to contribute to the conservation of this species, provided integrity issues (below) in this forest are resolved.

Six species of marine turtles have been listed as using the DDS including five species that the nomination cites as “frequent”. Four species have been recorded as nesting in the DDS: the Vulnerable Olive Ridley, Endangered Green and Loggerhead, and Critically Endangered Leatherback. Two other Critically Endangered turtles (Hawksbill and Kemp’s Ridley) have also been recorded. It appears that while some turtles (mainly Green) still nest on Île aux Oiseaux and Sangomar, nesting records are rare in Senegal with a decline noted from a minimum of 200 nestings observed on the coast in the 1950’s, to about 20 observed in 1985. Therefore DDS is not an important breeding site for any of these species, but the area has the potential to be

much more important for turtle conservation once the threats can be solved.

Within the estuary component of the property 114 species of fish belonging to 42 families have been identified, including one species of carp (*Lisa bandialensis*) which is considered to be endemic to the DDS and is decreasing because they are highly sought after by Senegalese consumers. The site is an important fish nursery as well as provides habitat for numerous crustaceans and molluscs of which several (shrimps, oysters, and various other shells) are very important locally. There is also high diversity in the marine ecosystem, including cartilaginous fish (80 species in 30 families) and bony fish (470 species in 110 families). A number of these species are over-exploited and given the comparatively small marine area in the nomination compared to the area where these species range, the contribution of the property for marine fish as well as marine mammals and invertebrates is limited.

The dry forests of the DDS are said to contain about 20% of the flora of Senegal making the area of national importance. Baobabs growing on the shell middens, while scenic, are not natural as they require lime-rich substrates so only grow on the artificial islands; indeed they serve as an indicator to identify where the shell middens occur.

Mangroves in Senegal (as throughout West Africa) are under severe pressure. Since 1980 Senegal has lost approximately a third of its area under mangroves, and the largest area remaining in Senegal is in the Delta du Saloum providing a largely intact and very important habitat.

3. COMPARISONS WITH OTHER AREAS

The property is nominated under natural criteria (vii) and (x), in addition to cultural criteria. In relation to its representation of superlative phenomena, the principal points of comparison are also relevant to the application of the biodiversity criteria and are discussed below, consider notably that there are larger, more natural and more diverse areas within the region (notably the Banc d'Arguin in Mauritania and the Bijagos in Guinea-Bissau). From the point of view of aesthetic values, the property is certainly attractive, but does not present distinct values in this regard that would set it apart from other areas of mangroves of marine conservation areas both in the sub-region and elsewhere in the world. IUCN considers the property is clearly of great national significance for Senegal for both natural beauty (the mangrove, tropical sandy island and marine habitats) and natural phenomena (including its highly important seabird nesting colony along the West African coast). However at a global level these habitats and phenomena are found in a range of places and at a larger scale.

In relation to biodiversity values, the nomination recognises that mangrove forests (here composed of

four species) are common throughout the world and that there are many other mangrove forests much larger than that found in the DDS. The nomination focuses on the juxtaposition of the natural values of the site with the cultural values, which are mainly the man-made shell middens that occur in the site, and which are in effect protected from erosion by the mangroves as a key value. Whilst this may be the case, IUCN considers that this issue is an important aspect of integrity regarding the cultural attributes of the property, but would not be a basis for the application of natural criteria.

Regarding species conservation, no comparative analysis is made with the relatively small dry forest portion of this nomination. This area could, with more effective management become the most important area for the conservation of the Red Colobus, although the same could be said for larger areas where this species occurs. Although a number of threatened marine species occur within the reserve, the marine component is small and there are either other or larger areas which play a more significant role in their conservation. The site is important for the Atlantic Hump-backed Dolphin, but probably not the most important site for this species.

The most significant basis for international conservation value of DDS appears to relate to its bird population. IUCN regards the Delta of Saloum as the third most important site for *waterfowl* in West Africa after the Banc d'Arguin in Mauritania and Djoudj in Senegal, whilst BirdLife cites the Bijagos Archipelago of Guinea-Bissau as the second most important site for *migratory waders* after the Banc d'Arguin. When the Banc d'Arguin was evaluated, IUCN noted that it was by far the most important area for *migratory birds* in the region with only the Bijagos Archipelago in Guinea-Bissau coming close. The other World Heritage wetland site found in the same biogeographic province is the Djoudj National Park where riverine flats also support significant Palaearctic migrants, mostly waterfowl. It is, however, much smaller and does not have a marine aspect.

The nomination notes that there are many close similarities between the DDS and the Bijagos, noting that the Bijagos covers a much larger area. The Bijagos, in addition to being important for migrating waterfowl, also have a number of nesting species including ibis and a heronry. On the basis of breeding species (see Table 1), the DDS is significant, in particular for gulls and terns. These are mainly on the 200 ha Île aux Oiseaux, and this tern and gull colony is very spectacular. However, there exist spectacular tern and gull colonies in other parts of the world, but with different species. Therefore in comparing areas within the same biome, the breeding bird colonies in the DDS surpass those of the Banc d'Arguin and the Bijagos, but are not globally exceptional.

All of the water birds listed above are classified by IUCN as "Least Concern" species, although there is one species that nests in very large but few colonies, and that is the African Royal Tern (a subspecies that is

restricted to the West African coast, with another subspecies occurring in the Americas). African Royal Terns only breed in Senegal, Mauritania, Gambia and Guinea Bissau, and Île aux Oiseaux in the DDS has the largest Royal Tern breeding colony in the world. However, it has been noted that breeding colonies of Royal Terns can shift between breeding sites, resulting in seemingly large fluctuations at any site. While 40,000 pairs were observed in 1999 on Île aux Oiseaux, “only” 21,000 pairs were counted in 1998 (Keijl *et al.*, 2001), and the nomination cites a figure of 19,588 individuals counted in May 2009. This may indicate a decline since the BirdLife data is some ten years old. In summary, whilst the nominated property is certainly of international interest, the values of the property appear to be at a lower level than those of both the Banc d’Arguin and Bijagos in the region, thus the case for the application of criteria x is weakened.

Table 1. Breeding pairs of IBA species (BirdLife, 2010)

Species	Season	Banc d’Arguin	DDS	Bijagos	Djoudj
Greater Flamingo	resident	12,940	-	-	-
Eurasian Spoonbill	resident	1,610	-	-	-
Western Reef-egret	resident	745	1,750	870	-
Great White Pelican	breeding	3,080	-	-	8,500
Great Cormorant	breeding	4,260	-	-	-
Grey-headed Gull	breeding	-	4,600	800	-
Slender-billed Gull	breeding	1,610	3,350	170	-
Gull-billed Tern	breeding	1,180	309	-	-
Caspian Tern	breeding	2,575	8,610	1330	-
Royal Tern	breeding	5,630	40,000	7,600	-
Common Tern	breeding	40	80	-	-
African Sacred Ibis	breeding	-	-	742	-
African Spoonbill	breeding	-	-	1,000	-
Black-crowned Night-heron	breeding	-	-	168	1,000
Squacco Heron	breeding	-	-	318	-
Great Egret	breeding	-	-	925	807
Little Egret	breeding	-	-	553	-
TOTAL		33,670	58,699	14,476	10,307

4. INTEGRITY, PROTECTION AND MANAGEMENT

4.1. Protection

The legal protection (apart from the portion of the DDS inscribed as National Park) of the proposed site is unclear. The nomination notes the land nominated as

core is mostly State-owned, but does not explain what land is under private ownership. Given that a number of small villages and one small hotel lie within the proposed core area, the situation pertaining to any private land inside the proposed property requires clarification. The nomination also notes that the State may “transmit the utilisation and rational enhancement of [State] land in conformity with development plans and programmes to third parties”, and the law 96-07 of 22 March 1996 allows the region, commune and rural community to define and organise the use of this land, in liaison with the State (i.e. the National Park Service and the Forest Department). Thus the extent of actual protection provided is not clear and whilst World Heritage site status could provide a basis to strengthen and clarify the legislative protection, it could also lead to increased visitation and resultant impacts on the area.

IUCN considers the protection status of the nominated property does not meet the requirements set out in the Operational Guidelines.

4.2 Boundaries

The boundaries of this property include three ecosystems: mangrove, dryland forest and marine. Included in the nomination is the entire National Park as well as additional mangrove habitat. The fact that there exists a Biosphere Reserve, a National Park, and a Ramsar Site, as well as the present nomination, within the Delta of Saloum makes understanding what is happening very difficult. There are some discrepancies noted during the evaluation, for instance DDS is cited as totalling 224,653 ha, but the Biosphere Reserve is said to cover 180,000 ha and appears on maps to be larger than the nominated area. Likewise why the DSNP is said to cover 76,000 ha and the Ramsar Site 73,000 ha (but they are supposed to have the same boundaries) also requires clarification.

The nomination includes a 3 km wide buffer zone on the seaward side, and a somewhat unclear buffer zone to the west (which, in addition to villages and cultivated areas, is supposed to include the community managed reserve of Missira). The present marine buffer zone is too narrow to be effective, but it was explained that this was due to management reasons as the National Parks could not police a larger zone, and thus included the same buffer zone as that included in the Biosphere Reserve. There is no buffer zone to the edge of the Forest of Fathala, where one would appear needed, due to the proximity to the Gambian border to the south and villages (and a hunting zone) to the west.

Apart from the issue of the Forest of Fathala, the boundaries for the nomination seem reasonable, especially as they include a good amount of mangrove and marine habitat. It is not certain that all of the area where the Red Colobus occurs is included in the nomination. Thus whilst the actual area of the nominated property needs to be checked, and investigation as to whether all the important areas of

forest for the Red Colobus are included would be useful, the boundaries appear to meet minimum requirements.

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

4.3 Management

Although the nomination submitted a management plan for the property, much of this is a reproduction of the nomination and it is not apparent that there is an overall management system for the property in place. However there seem to be a number of different management and development plans for the Delta, and the challenge will be to see how to combine all of these into a coherent system for the management of a WH property. In supplementary information provided to ICOMOS, the State Party notes that next steps to improve the management of the site will be to create a management committee and to identify a manager.

The nomination stresses the importance of local conventions, noting that traditional practices have had a great importance in the conservation of the site and that these would continue. However it also recognised that there have been declines in biodiversity and projects are in place, such as the community marine protected area at Bamboung, to reverse this trend. The mission noted a range of types of use going on inside the proposed core of the property (tourism, gathering of grasses and other plant products, bee-keeping, shell collection, fishing, some livestock-rearing, agriculture, possibly some hunting). The extent to which these uses are being addressed by the management system, and the levels of use that would or not be considered sustainable are also not clear.

There is a structure in place for managing the National Park, and the Forest Department manages “Classified Forests” (Forêts classées). However the mechanisms for managing State land that has no protection status is unclear. There appears to be good progress in the development of an ecoguard/ecoguide programme and the work with the community managed marine protected area. There are a number of different initiatives with NGO’s (including IUCN) to better manage the area and also a number of examples of projects that have clearly been unsustainable.

A special note needs to be made about the management of the Forest of Fathala. This 11,800 ha area has been included inside the National Park and therefore the DDS. The management of a third of the forest (4,000 ha) has been given to a Dakar-based NGO (SPEFS, the “Société pour la Protection de l’Environnement et de la Faune du Sénégal”), which has fenced 2,000 ha with electrified fencing. There appears to be significant conflict between this reserve and the surrounding local people, including poaching of wildlife.

The nomination lists a total of 15 people spread over 7 bases. In addition to the staff of the Forest of Fathala, there are also 38 ecoguards listed who work mostly on a voluntary basis at the community level. Still, there are not sufficient resources to manage a protected area of this size. Annual bird censuses are undertaken although seem to be less than before when there was more intense Belgian interest in counting the birds. Otherwise the monitoring of the property at the present time appears to be very limited.

IUCN considers the management of the nominated property does not meet the requirements set out in the Operational Guidelines.

4.4 Threats

Wildlife management

In addition to trying to conserve the native fauna of the area, an attempt has been made to re-introduce elements of the fauna that have become extinct, in many cases a long time ago, such as the Western Giant Eland, Buffalo and Roan Antelope. However other species, such as two White Rhino, four Giraffe (a different subspecies of Giraffe as the original West African one is extinct), and a herd of Cape Zebra (that never existed in Senegal), all coming from South Africa, have been introduced to the reserve. Most of these experiments seem to be failing however. For example the evaluation mission was informed that 3 of the 4 Giraffe had being poached. While it is laudable to try to “recreate” biodiversity that once occurred, the unscientific manner in which animals are being introduced to a National Park is clearly not appropriate.

Population growth and unsustainable use

The nomination says that the DDS has integrity given the good state of conservation of the property and the traditional practices of sustainable use (for shell collection and fishing), although also notes that there has been unsustainable use which is being resolved by the creation of a marine reserve and new techniques for oyster farming that reduce impacts. Whilst many parts of the area including the mangroves surrounding the islands are for the most part intact, the property is not pristine and impacts from the resident population include agriculture, fire, fuel wood collection, pollution, and possible collection of bird and turtle eggs. It is not clear as to how many people actually live inside the proposed core area, but the nomination says that some 55,000 people are living mostly at the edge of the property, and another 81,000 people reside in the buffer zone (and population growth is at 2.5%). The nomination notes pressure from increasing rice cultivation and illegal firewood collection as well as bush fire, which was also evident during the evaluation mission.

Tourism

Tourism is still very basic in the delta but developing, which seems to be one of the main motivations for inscribing this area as World Heritage. The neighbouring towns of Missira, Toubakouta and Foundiougne all have

plans for tourism development. The mission noted interest in sports fishing, and some local people receive income from stuffing or making models of the tourist's "big catch". The mission heard reports that few proceeds from the larger hotels in the region go to the local community. Unmanaged tourism in the area could pose a very real threat to the natural values of the site, especially to Île aux Oiseaux which still receives a relatively low number of tourists and is said to be strictly managed by the National Park, but increased visitor demand will create management issues. In this context the preparedness of the management of the property to consider possible increases does not yet seem to be in place.

Soil salinisation and erosion

In 1991, it was estimated that soil salinisation affected 90,000 ha in the Saloum estuarine domain. While rainfall seems to be increasing today, with global change it is impossible to predict what will happen in the future. Low rainfall means that the whole of the area could be threatened by increases in salinity which would destroy the remaining mangroves. Similarly in 1994 the "Point of Sangomar" was breached and this sandy spit turned island is progressively moving southward, removing the previous protection of the mangroves from wave erosion.

Pollution

The Delta du Saloum is not far from Banjul, capital of the Gambia, and there seems to be a direct flow of water to the delta which brings lots of plastic debris that ends up on the mudflats and forms garlands of plastic on the mangroves. Other pollution comes from Kaolack. The mission noted community clean up efforts and that measures are being taken to tackle both solid waste and sewage, but fixed plans are not yet made.

The State Party is clearly aware of the challenges to this property and is doing much to address them through the creation and better management of reserve areas, as well as wider planning efforts. Nevertheless there are a range of significant sources of concern, including from the potential impacts of World Heritage status in relation to tourism pressures, and there remain underlying issues regarding the adequacy of legislation, staffing and resources to resolve before a viable management system could be established. Whilst World Heritage status might arguably have a catalytic role, and this appears to be a basis for UNESCO local support for the initiative, it also has the potential to bring additional pressures ahead of adequate management capacity being established. Conversely the existing recognition by UNESCO of the area as a biosphere reserve, as well as its existing recognition as a Ramsar site provide alternative and existing sources of leverage for conservation and sustainable development efforts, more clearly relevant to the property at the present time.

IUCN considers the nominated property does not meet the conditions of integrity as outlined in the Operational Guidelines.

5. ADDITIONAL COMMENTS

One area within the delta but which is not located within the nomination that could possibly increase the OUV of the site is "Île de Koussmar", which houses possibly the largest bird of prey roost ever discovered. This massive winter roost contains approximately 45,000 insectivorous raptors, including over 28,600 Lesser Kestrels and 16,000 African Swallow-tailed Kites. The roost is thought to host more than half of the combined known breeding Lesser Kestrel (Vulnerable) populations of western Europe and northern Africa. This species has declined rapidly in western Europe since 1950 and significant conservation efforts have been devoted to the Lesser Kestrel in its European breeding range, but the discovery of this 'super-roost' in 2007 highlights the importance of protecting wintering sites as well. In the winter it must be an extraordinary spectacle to observe this density of raptors in one place. Whilst it would be challenging to associate this area, remote from the nominated property, to a revised nomination, it should be noted and protected as a highly noteworthy and important area within Senegal.

6. APPLICATION OF CRITERIA

The Delta du Saloum has been nominated under natural criteria (vii) and (x), as well as under cultural criteria which will be evaluated separately by ICOMOS.

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

This property is of great national significance for Senegal for both natural beauty (the mangrove, tropical sandy island and marine habitats) and natural phenomena (the most important seabird nesting colony along the West African coast). However at a global level these habitats and phenomena (although not with the same species) exist elsewhere and at a larger scale.

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

Criterion (x): Biodiversity and threatened species

The property is of international significance as an important seabird nesting colony, including one quarter of the entire breeding population of African Royal Terns. It is however the third most important wintering site for Palaearctic migratory waders, after the Banc d'Arguin in Mauritania and the Bijagos Archipelago in Guinea-Bissau. It is differentiated from these two sites by its combination of sandy islands and mangroves. Whilst the property provides habitat for a number of threatened species, including six species of marine turtles and the Atlantic Hump-backed Dolphin, its contribution to overall conservation of these species within their ranges is limited due to its small marine area and impacts of human use. The dryland forest provides one of the last habitats for the Endangered Red Colobus, along with a number of reserves in the region. The levels of integrity and protection and management of the property are not

sufficient to provide protection for these values at the present time.

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-10/35.COM/8B and WHC-10/35.COM/INF.8B2;

2. Decides not to inscribe the **Saloum Delta (Senegal)** on the World Heritage List under natural criteria (vii) and (x);

3. Recommends the State Party to seek assistance via the UNESCO Man and Biosphere Programme and also

of the Ramsar Convention, in order to ensure the international recognition of the Saloum Delta as both a Biosphere Reserve and as a Ramsar Site contributes to the effective conservation of the site, and also assists the development of well-planned and equitable approaches to sustainable development within the property and the surrounding area, including via sustainable tourism;

4. Further recommends the State Party to clarify and strengthen the legal protection of the property, and to increase the available human and financial resources to ensure the protection and conservation of the site, including the protection, and restoration where appropriate, of the important natural values within the area, including the high quality mangrove habitat, dry forest areas capable of supporting conservation of the Red Colobus, the important bird and turtle conservation area of the *Île aux Oiseaux*, and to also put in place an effective protection and management regime to secure the conservation of the nearby Île de Kousmar.

Map 1: Nominated property and buffer zones



Surface du bien proposé	145 811 Ha
Surface de la zone tampon	78 842 Ha
Total	224 653 Ha

